

Riverlink Precinct Economic Impact & Land Use Analysis

PREPARED FOR

Penrith City Council

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1. EXECUTIVE SUMMARY

In early 2008, Penrith City Council adopted the Riverlink Precinct Plan as an interim policy position pending more detailed analysis. Panthers / ING also lodged a Concept Plan for its site (for a range of mixed land uses including entertainment/leisure, commercial, retail and residential) and advised that development applications for currently permissible uses are expected to be lodged in early 2010.

As a result, Hill PDA was engaged by Penrith City Council to undertake the economic impact component of the nominated project studies. Hill PDA recognises the purpose of the economic impact study is to examine the range of land uses that would be desirable for the Riverlink Precinct. These land uses should maximise the benefits that would accrue the City of Penrith and complement existing land uses, the City's function and go towards fostering the City's identity.

Hill PDA developed the following land use principles in recommending land uses for the Riverlink Precinct:

- Land uses should not just be a response to 'highest and best use';
- Focus not on quantum of development but quality of development;
- Landmarks/focal points should be considered;
- Reconnect the River to the City – river edge and river-walk;
- The Precinct should be as public as possible;
- Co-location and synergies of land uses, no isolated objects or functions; and
- Legibility of city elements: market place, political/civic, cultural, educational, residential, health.

Based on Hill PDA's site investigation of the Riverlink Precinct and surrounding lands, the following issues, opportunities and constraints will influence recommended land uses:

- There is no public green space near the CBD where the community can gather apart from urban locations (e.g. Westfield Shopping Centre, outside Council, proposed City Square);
- The CBD should be extended to the River;
- Maximise activities in the northern portion of the precinct with a CBD and river connection;
- A landmark building should be considered for either the Woodriff or Carpenters site that can be seen from all locations in the precinct;
- Link regional attractions;
- Need to ensure Penrith Panthers does not turn its back on the CBD;
- Link uses in the Riverlink Precinct with Panthers, don't compete with uses in Panthers, and do not duplicate Panthers uses;
- Define the hierarchy of streets – main avenues, gateways, approaches, residential roads;
- Reinforce main avenues and street planting;
- Need night time activation of land uses;

- Opportunity to facilitate employment growth within an established urban area;
- Conflicts between land uses may cause issues (e.g. entertainment and residential);
- Consider how to deal with disruptions to river front and river linkages from residential and other private land uses;
- A cohesive and comprehensive layout of land uses in the Precinct is required;
- A sense of scale and openness should be achieved; and
- Public facilities need to be accessible and affordable.

Council is undertaking various flood studies which may result in recommendations for land uses for flood liable lands. It is acknowledged that some of the recommended uses may not be appropriate given flooding constraints.

Based on the research and analysis within this report, Hill PDA recommends land uses for the Riverlink Precinct. The following schedule recommends gross floor areas for viable development. Assumptions made in compiling this schedule of land uses include:

- The schedule indicates desirable or required land area and target gross floor areas;
- The schedule also includes components of the Panthers proposal which are supported by the master plan;
- It is unknown if the water themed park can be developed on flood liable land; and
- Areas (hectares) of flood liable and flood free land (other than Panthers site) have not been considered in developing the list of land uses.

Table 1 - Riverlink Precinct Preferred Land Use Plan

Precinct Land Uses	GFA Existing	GFA Proposed	Stage
North*			
Sports Stadium		2,000	Medium term
Indoor / Outdoor Sports Centre		5,000	Medium term
Integrated Visitor Centre / museum / gallery		2,000	Short term
Sports Academy / Management School		4,000	Short term
Art / Cultural / Business Incubator		3,000	Short term
General Retail ground floor		5,000	Short term
Fresh Food Markets		4,000	Short term
Private High School		10,000	Medium term
TOTAL		35,000	
Penrith Panthers Stages 1 & 2			
Club	27,200	27,200	
Conferences / Conventions	21,000	48,200	Short term
Aquatic health wellness centre		4,000	Short term
Hotel	11,500	41,700	Short term
Serviced Apartments		9,000	Short term
Cinemas & bowling		8,500	Short term
General Retail		9,000	Short-Med term
Restaurants	3,050	3,500	Short-Med term
Commercial Suites		6,000	Short-Med term
Business Park		25,000	Short-Med term
Multi-use Arena		30,000	Short term
Seniors Living Residential		50,000	Short-Med term
Residential Medium Density		54,000	Short-Med term
Residential High Density		30,000	Short-Med term
TOTAL	62,750	346,100	
Panthers Stage 3			
Restaurants, Hotel/Tavern, Functions, Conference Facilities and River Rec. Uses		15,000	Long Term
TOTAL		15,000	
Southwest			
Restaurants		1,200	Medium term
Tavern		1,500	Medium term
Functions / receptions		1,500	Medium term
River recreational uses		1,500	Medium term
TOTAL		5,700	
Southeast			
Bulky Goods		15,000	Medium term
TOTAL		15,000	
Flood Liabile Land**			
Water Theme Park		20,000	Short-Med term
Golf Course (18 Holes)		1,000	Medium term
Camping Grounds			Medium term
Eco tourism resort		7,500	Medium term
Market Gardens			Short-Med term
City Garden			Short-Med term
TOTAL		28,500	
TOTAL	62,750	445,300	

The above precincts are indicated in the following plans. The first aerial map overlays the precincts with existing land uses. The second map indicates the extent of the flood plain with respect to the precincts.

Figure 1 - Riverlink Precinct Plan Aerial

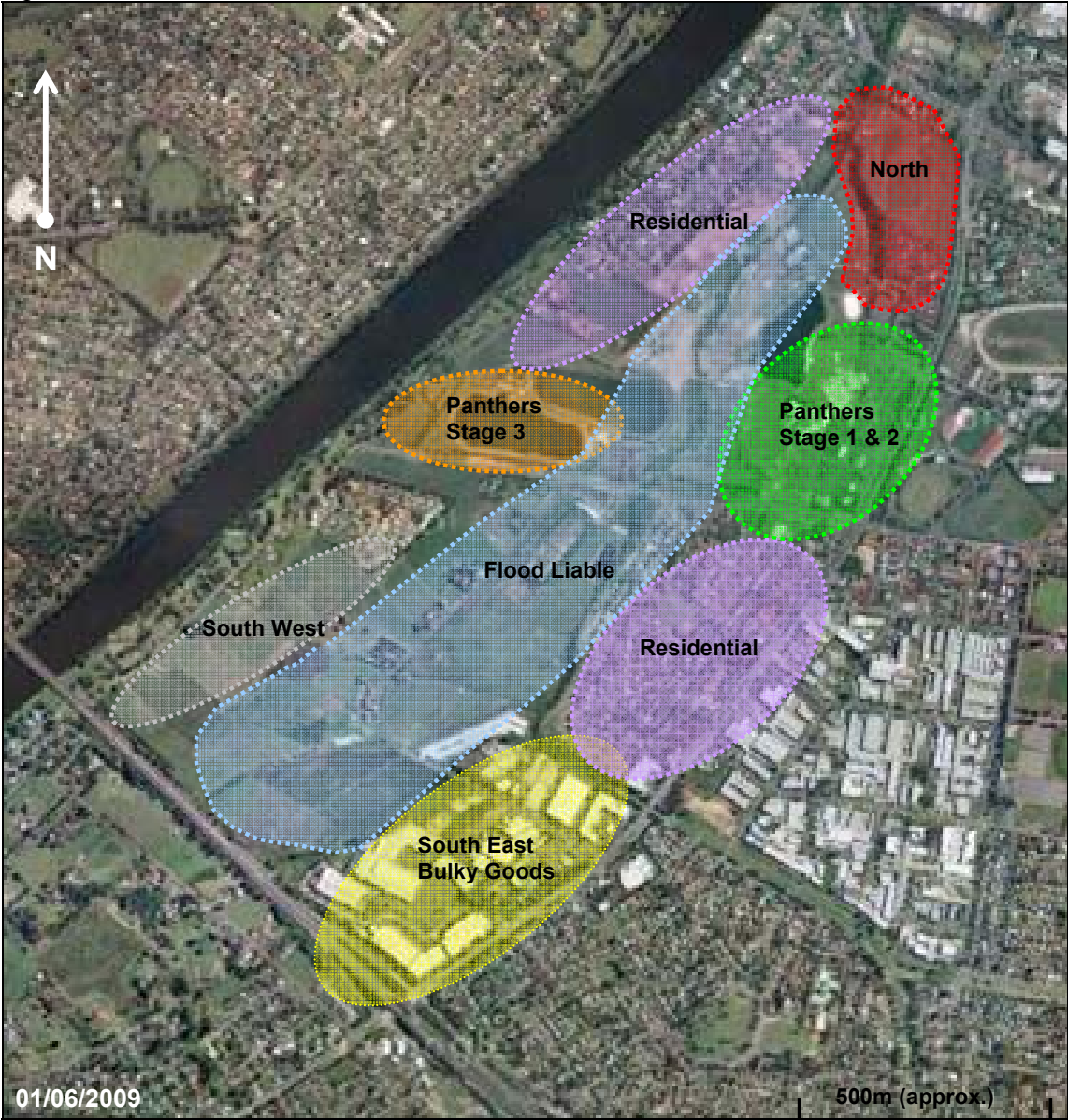
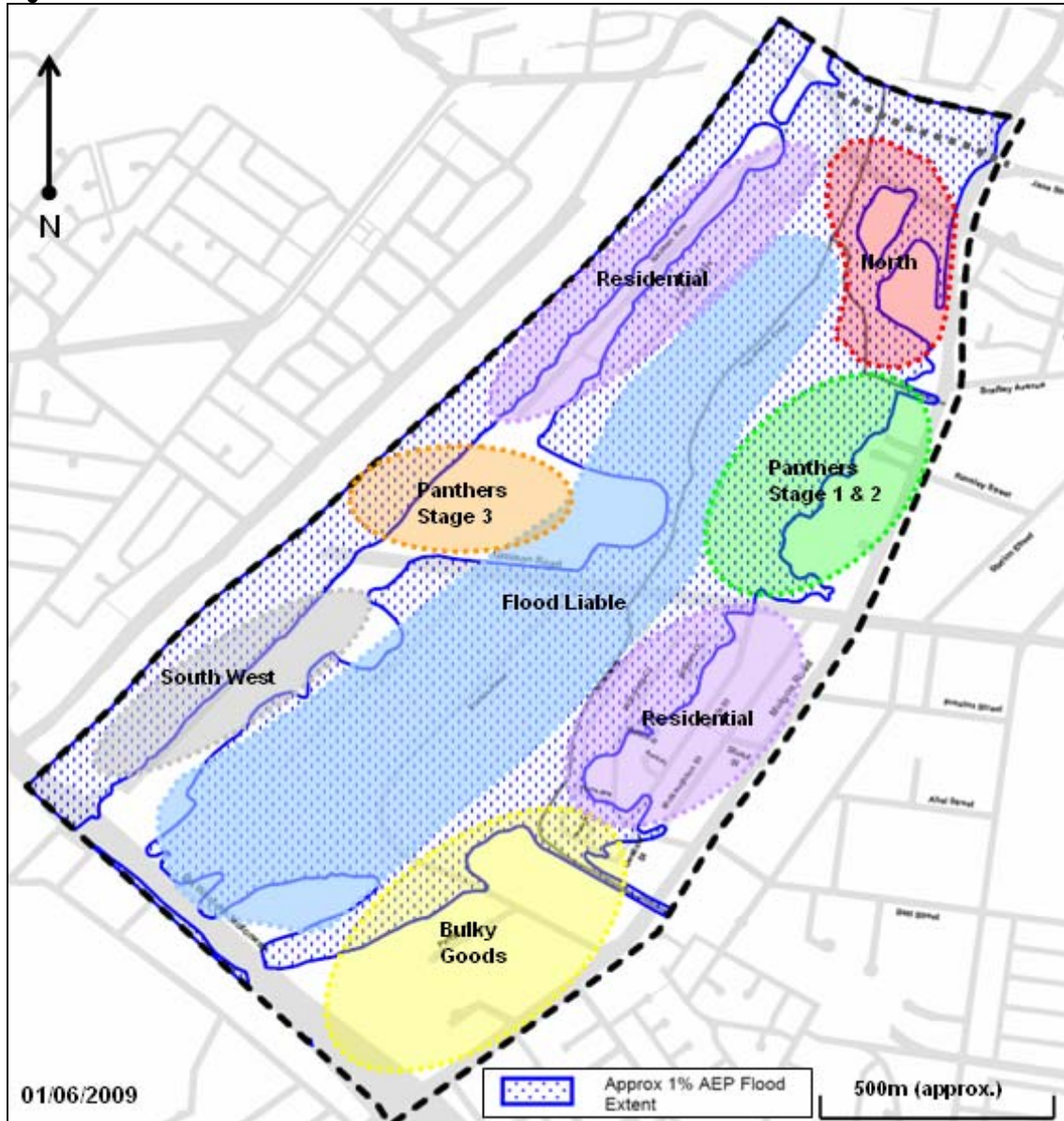


Figure 2 - Riverlink Precinct Plan with Flood Line



The estimated construction cost for the Riverlink Precinct is approximately \$966m dollars of which the Penrith Panthers is around 80% of this.

The construction industry is a significant component of the economy accounting for 6.6% of Gross Domestic Product (GDP) and employing almost 14.6% of the workforce at March 2003. The industry has strong linkages with other sectors, so its impacts on the economy go further than the direct contribution of construction. Multipliers refer to the level of additional economic activity generated by a source industry.

Based on an estimated cost of \$966m the added value of economic activity to the Australian economy is \$1.8b bringing a total value of \$2.77b.

The proportion of multiplier impacts that are local depends on a number of factors including the source of materials and the contractors employed. As a general rule around one third of multiplier impacts are felt in the local economy.

The proposed developments will generate jobs in two ways – through construction and through commercial operations.

It is estimated that for every million dollars of construction there are 5.6 jobs created over 12 months (job year). Hence the \$966m project will generate around 5,407 job years directly in construction.

For every job year generated directly in construction there is 0.78 job years in production induced multiplier effects and a further 2.33 in consumption induced effects. As a result 5,407 job years directly in construction will generate a further 16,815 job years in multiplier benefits. Again the multiplier impacts are national and not local. We will expect some positive impacts on the local economy – particularly in retail and service industries for the workers on site.

It is estimated that around 3,600 full-time equivalent workers will be on site of which around 76% will be on the Panthers site. Whilst the above estimates are lower than Panther's estimates they relate to full-time equivalents. The retail and entertainment industries have a high component of part-time and casual workers so the total workforce on site could be close to double the above number.

Following building completion of the above land uses the total value of salaries on site is forecast at \$206m per annum (\$2007). The total value to the NSW economy is \$515m per annum once value added multipliers have been accounted.

2. INTRODUCTION

2.1 Penrith City

Penrith City is located at the western fringe of the Sydney metropolitan area - about 54km from the Sydney CBD. The City is bounded by Hawkesbury City in the north, Blacktown City and Fairfield City in the east, Liverpool City and Wollondilly Shire in the south and Blue Mountains City in the west.

Penrith City is a residential and rural area, with most of the population living in residential areas in a linear corridor along the Great Western Highway and the main western railway. The City encompasses a land area of 407 square kilometres, of which around 80% is rural and rural residential.

Most of the urban area is residential, with some commercial areas and industrial areas, including extractive industries and manufacturing. Much of the rural area is used for agricultural purposes, including dairying, poultry farming, hobby farming, orcharding, market gardening and horse breeding. Major commercial centres are located at Penrith and St Marys.

Penrith is now the third largest LGA in Western Sydney, behind Blacktown and Fairfield, with a population count of 172,140 as at the 2006 Census. This is slightly down from the 2001 Census which indicated a total population of 172,397. The reason for this is an ageing of the population and a decline in the overall numbers of children and young people as a result. Penrith has also experienced migration of older residents to the north and central coast. Penrith's population growth rate has been gradually declining from over 4% in the first half of the 1980s to just over 1% up until 2001. Between 2001 and 2006 the population of Penrith LGA actually declined by -0.2% or 295 people.

2.2 Riverlink Precinct

The Riverlink Precinct is located within the suburbs of Penrith and Jamisontown in the Penrith LGA. The Precinct is bounded by the eastern bank of the Nepean River to the west, Mulgoa Road to the east, the, M4 Motorway to the south and the Western Railway line to the north. The topography of the Precinct is largely level, sloping gently towards the Nepean River, with the exception of the river bank, which drops away more steeply to the water's edge.

The Riverlink Precincts sizeable area, its strategic location, and its unique setting combine to create a unique environment. Planning for the precinct therefore presents a rare opportunity to enhance the attractiveness and liveability of Penrith City for residents, visitors and investors.

The major landowners in the Riverlink Precinct are Council, Panthers (and its partner ING Real Estate), and the Blaikie Road landowners group formed to present a residents' development perspective. Other landowners comprise large numbers of detached dwelling households and commercial premises owners.

Over the past few decades the risk of flooding and the need to achieve safe evacuation have proved to be the primary constraint on redevelopment of the Precinct. Recently completed flood modelling confirms that this will continue to limit land use options into the future.

Recently, the Precinct has been the focus of development interest from numerous landowners (both public and private). This has prompted the examination of its future by Council to ensure its significant potential is sensitively managed and that outcomes enhance Penrith's Regional City status.

Predominant land uses in the 370ha Riverlink Precinct include:

- Panthers Club – The existing Panthers club comprises a three storey building of around 27,200sqm, an administration building of 1,530sqm, a pavilion of 1,875sqm for events, and at grade parking for around 2,100 cars.
- Panthers Recreation Facilities and Amenities – Panthers is also home to numerous recreational facilities including aqua golf, golf driving range, the former water ski lakes, and a number of fast food pad sites along Mulgoa Road. An 18 hole golf course is also situated on the site.
- Woodriff Garden Site - The existing rail line to the north, Mulgoa Road to the east, and the Great Western Highway to the south and west binds the 5ha site. The site is largely undeveloped except for a large tennis court complex and passive recreation area in a formal park.
- Carpenter Site – The undeveloped site is in a prime location at the intersection of Mulgoa Road and High Street. The area is bisected by powerlines, which together with flooding issues, constrains future land uses.
- Residential East (Jamisontown) – There are various clusters of residential development along Mulgoa Road along the eastern boundary of the Precinct. Residential dwelling types vary but are predominately detached and medium density development, as well as seniors living (in Penrith).
- Residential West – Between the Nepean River and the Panthers land is a residential precinct focussed on Ladbury and Nepean Avenues. Dwellings in this precinct are predominately low density, on large land lots, with some having river frontage.
- Mulgoa Road Bulky Goods Precinct – various bulky goods homemaker centres, outlets and stores are clustered south of Panthers along Mulgoa Road near the intersection with the M4 Motorway. Recent inspections indicate minimal vacancies and the successful development of an underground tunnel for traffic travelling south down Mulgoa Road that turns right directly into the precinct without the need for a signalled interchange.
- Blackie Road Rural Residential – Very large, formerly agricultural lots occupied by detached dwellings.

Major features of the Riverlink Precinct and surrounding land that could influence recommended land uses include:

- Six public primary schools, Penrith High School, Jamison High School St Nicholas of Myra School (private);
- The Penrith CBD, Centro Nepean Shopping Centre, Westfield Penrith, Southlands Shopping Centre, and the Nepean Shopping Centre;
- Nepean Hospital;
- Western Sydney Institute of TAFE, Penrith Panthers Club, Joan Sutherland Performing Arts Centre, Penrith City Council offices, Nepean Shore Resort, Penrith Library, and Q Theatre;

- Penrith Stadium, Penrith Showground, Penrith Raceway, Penrith Swimming Centre, Woodriff Gardens and Tennis complex; and
- Various sports centres and complexes including Hickeys Reserve, Parker Street Reserve, Penrith Park, Spence Park, Weir Reserve, Robinson Park, Jim Scott Park and Jamison Park.

2.3 Brief and Methodology

In early 2008, Penrith City Council adopted the Riverlink Precinct Plan as an interim policy position pending more detailed analysis. Panthers / ING also lodged a Concept Plan for its site (for a range of mixed land uses including entertainment/leisure, commercial, retail and residential) and advised that development applications for currently permissible uses were expected to be lodged in early 2010.

In order to progress planning for the precinct in an informed manner, Penrith City Council sought relevant background studies to provide a sound base for the preparation of planning controls intended to guide the future of the Precinct. The three separate studies related to:

- Visual Character and Urban Design Analysis;
- Traffic, Transport and Access Study; and
- Economic Impact and Land Use Analysis.

Ultimately the findings of these studies are intended to inform identification of draft LEP zones for Penrith City Plan (stage 2), which is scheduled to be presented to Council in July 2009 and ultimately, more detailed development guidelines in a Masterplan and subsequent draft DCP documents.

As a result, Hill PDA was engaged by Penrith City Council to undertake the economic impact and land use analysis component of the nominated project studies. Hill PDA recognises the purpose of the study is to examine the range of land uses that would be desirable for the Riverlink Precinct. These land uses should maximise the benefits that would accrue the City of Penrith and complement existing land uses, the City's function and foster the City's identity.

Specifically, the economic impact and land use analysis examines:

- The integration of the new uses within a wider city and regional context;
- Considers the viability of a range of land uses in the precinct;
- Examines the implications of those uses in particular on the City Centre and on neighbouring/nearby land uses; and
- Quantifies the benefits (in terms of jobs, City profile/attractiveness, investment and social gains) of the recommended land uses.

To meet the requirements of the project brief, Hill PDA undertook an approach broadly structured on the following key tasks:

- Developed a key demographic profile of Penrith LGA to understand those characteristics that would impact on demand for particular land uses in the Riverlink Precinct;

- Considered population and household growth of the LGA and North West Sub-Region;
- Analysed the employment and skill profile of residents, analysing Journey to Work data, and LGA job forecasts;
- Based on a market appraisal, identified patterns of demand for employment and residential land;
- Investigated current development proposals and their status from discussions with Councils and other sources at Hill PDA's disposal;
- Based on forecast population growth on site and within the local and regional context, identified a trade area for any retail and commercial floorspace on the site and forecast demand for local retail and commercial services;
- Considered comparable developments in the Sydney Metropolitan Region that are likely to compete with the Riverlink Precinct and any constraint such competition will impose on the long term viability of the recommended land use mix in the Precinct;
- Recommended a range of land uses, which may be appropriate and desirable for the Riverlink Precinct, complementing land uses which already exist in Penrith City;
- Recommended the preferred dispersion or location of recommended uses across the Precinct.
- Discussed the viability of recommended land uses, inclusive of FSR considerations, lot size variation, development form, staging of development etc;
- Identifies and makes recommendations with regards to zoning (in accordance with the standard LEP instrument);
- Identifies the direct contribution of construction to employment (jobs) and the construction industry (dollars), as well as the multiplier impacts of developing the recommended land uses;
- Identifies jobs on site post construction of each employment land use within the preferred land use plan (i.e. full time versus part time, white collar versus blue collar); and
- Measures the economic impacts of recommended land uses upon the economic viability of other land uses, centres and precincts (e.g. bulky goods precincts, retail and office space in the Penrith City Centre).

2.4 Background Documentation

The following documents were reviewed as background to this report:

- NSW LEP Template, NSW Department of Planning;
- Riverlink Precinct Plan (2008);
- Sustainability Blueprint for Urban Release Areas, Penrith City Council (2005);
- Penrith's New Urban Areas (February 2009);
- Penrith Arterial Roads Study (2007);
- Penrith Integrated Transport and Land Use Strategy (2008);
- Penrith Inward Investment Strategy (2008);

- Penrith Employment Planning Strategy (2007); and
- Penrith Panthers Concept Plan, Panthers Partnership (dated: November 2008); and
- Penrith Panthers Indicative Yield Schedule, provided by ING (dated: 17/04/09).

2.5 Limitations

This report is for the confidential use only of the party to whom it is addressed (the client) for the specific purposes to which it refers. We disclaim any responsibility to any third party acting upon or using the whole or part of its contents or reference thereto that may be published in any document, statement or circular or in any communication with third parties without prior written approval of the form and content in which it will appear.

This report is based on estimates, assumptions and information sourced and referenced by Hill PDA. We present these estimates and assumptions as a basis for the reader's interpretation and analysis. With respect to forecasts we do not present them as results that will actually be achieved. We rely upon the interpretation of the reader to judge for themselves the likelihood of whether these projections can be achieved or not.

As is customary, in a report of this nature, while all possible care has been taken by the authors to prepare the expenditure and financial models from the best information available at the time of writing, no responsibility can be undertaken for errors or inaccuracies that may have occurred both with the programming or the financial projections and their assumptions.

3. PLANNING AND POLICY CONSIDERATIONS

3.1 Sydney Metropolitan Strategy (2005)

With the population of Sydney set to increase by 1.1m in the next 25 years, the NSW Government is planning now for Sydney's future through the Metropolitan Strategy. Sydney's structure and form cannot be rapidly changed. Growth has been concentrated around the harbour cities of Sydney and North Sydney, while Parramatta has provided a riverside setting for a second CBD. To meet the challenge of equitable access, the roles of Penrith and Liverpool as Regional River Cities will be elevated over the next 25 years as jobs and housing growth is concentrated in Western Sydney.

In determining the planning roles across Sydney, the Metropolitan Strategy recognises the Global City, Regional Cities, Specialised Centres, Major Centres, Employment Lands and Renewal Corridors will be of particular State significance. These areas will account for 50 per cent of new homes and 50 per cent of new jobs over the next 25 years. While State-led, this planning will be undertaken in consultation with local government and their communities through subregional planning. Planning for Neighbourhoods, Town Centres and Villages will be undertaken at a local level, based on the principles of the Metropolitan Strategy, and in consultation with the community.

Table 2 - Sydney Metropolitan Strategy Centres Typology

	Objective	Locations
Global Sydney	The main focus for national and international business, professional services, specialised health and education precincts, specialised shops and tourism, it is also a recreation and entertainment destination for the Sydney region and has national and international significance.	Sydney City*, North Sydney
Regional Cities	With a full range of business, Government, retail, cultural, entertainment and recreational activities. They are a focal point for regional transport and jobs.	Parramatta, Liverpool, Penrith
Specialised Centres	Areas containing major airports, ports, hospitals, universities, research and business activities that perform vital economic and employment roles across the metropolitan area. The way they interact with the rest of the city is complex and growth and change in and around them must be planned very carefully.	Macquarie Park, St Leonards, Olympic Park-Rhodes, Port Botany, Sydney Airport, Randwick Education and Health, Westmead, Bankstown Airport-Milperra, Norwest
Major Centres	The major shopping and business centre for the surrounding area with a full scale shopping mall, council offices, taller office and residential buildings, central community facilities and a minimum of 8,000 jobs.	Bankstown, Blacktown, Bondi Junction, Brookvale-Dee Why, Burwood, Campbelltown, Castle Hill, Chatswood, Hornsby, Hurstville, Kogarah
Planned Major Centres	Locations for shopping and services in identified residential growth areas.	Rouse Hill, Leppington, Green Square
Potential Major Centres	These have assets, including transport or open space connections, and potential as shopping and service hubs, in existing areas of the city which may have increased residential development.	Sutherland, Cabramatta, Mt Druitt, Fairfield, Prairiewood

* Sydney City includes the CBD, Sydney Education and Health Precinct, Pyrmont-Ultimo, Kings Cross, the NSW State cultural institutions, the Walsh Bay cultural precinct and the St Vincent's-Darlinghurst Health Precinct.

3.2 Draft North West Sub-Regional Strategy (2007)

The Department of Planning's Draft North West Sub-Regional Strategy is a crucial step in implementing the Sydney Metropolitan Strategy, guiding land use planning until 2031. The North West Sub-Region includes Baulkham Hills, Blacktown, Blue Mountains, Hawkesbury, and Penrith LGA's. Key directions in the Strategy include:

1. North West Growth Centre to be developed with centres, infrastructure and services;
2. Retaining and protecting strategic employment lands to help provide jobs closer to home;
3. Strengthening Penrith as one of Sydney's main city centres and promoting Norwest as a Specialised Centre;
4. Continuing to develop Castle Hill, Blacktown, Rouse Hill and Mt Druitt as Major Centres;
5. Improving transport access to, from and within the subregion;
6. Protecting rural and resource lands as well promoting the environmental and scenic qualities of the subregion; and
7. Improving access to open space and recreation opportunities.

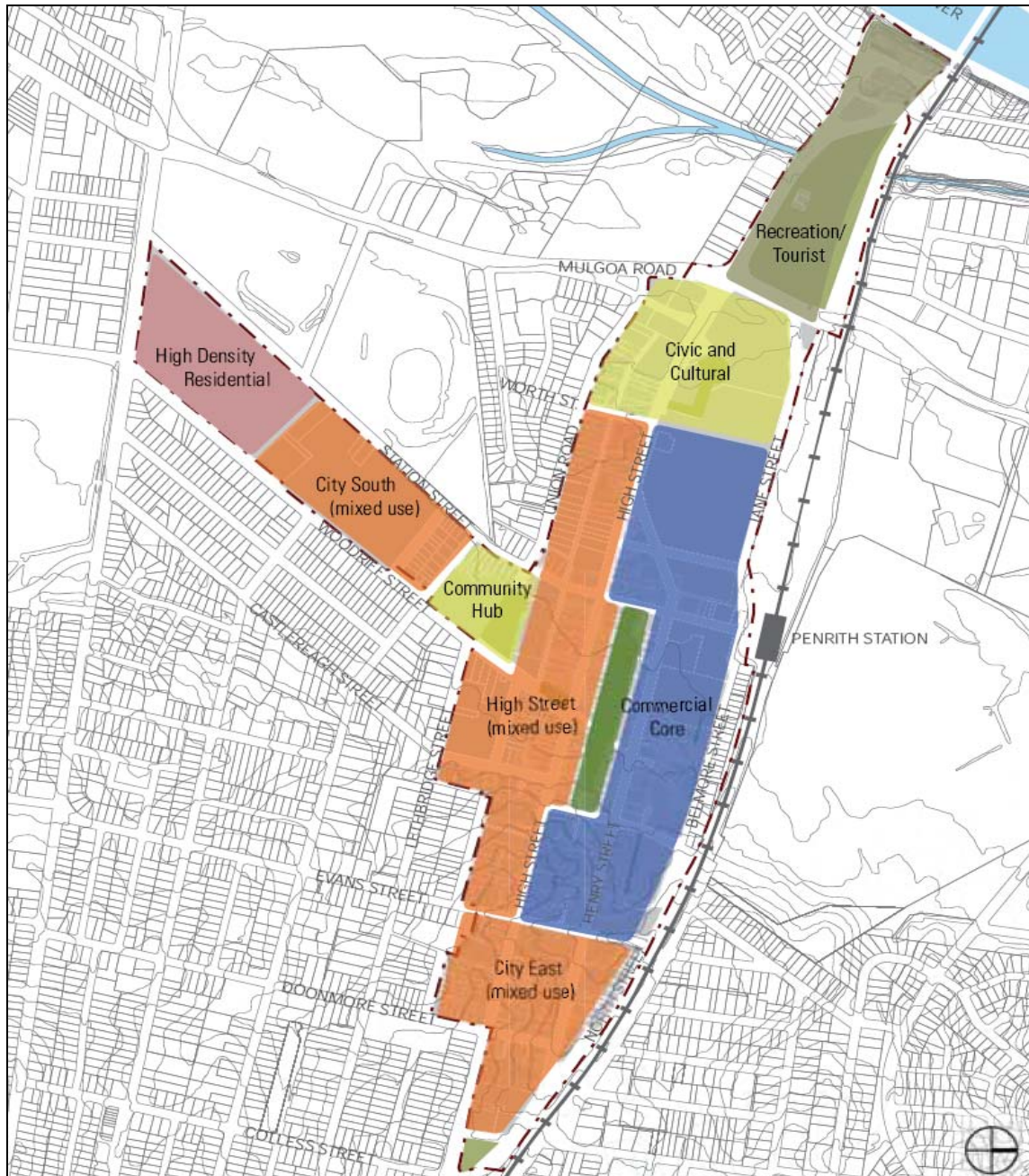
One of the key objectives of the Draft Strategy is to develop Penrith as the Regional City of the North West. Penrith is an important location for services and facilities, with significant growth planned for Penrith including 10,000 new jobs and 10,000 new residents in the City Centre. Part of the Greater Western Sydney Employment Hub is also located within Penrith LGA and these areas will also be a focus of employment growth in the future.

The Draft Strategy indicates the Penrith City Centre Plan will play a key role in achieving Penrith's status of a Regional City.

3.3 Penrith City Centre Plan (2006)

The four documents in the Penrith City Centre Plan include: a City Vision, a Local Environmental Plan, a Development Control, and a Civic Improvement Plan. The City Centre Plan is designed to boost job, housing and lifestyle opportunities in Penrith and help Penrith become a driver of the NSW economy.

There are eight distinct precincts in the Penrith City Centre, which are complemented by the neighbouring precincts in the broader regional city area. These adjoining precincts are linked north/south by the Castlereagh Road/Mulgoa Road enterprise and business corridor and east/west by the High Street/Greater Western Highway which has a 'knowledge corridor' flavour, anchored by the Penrith Lakes and the Nepean Hospital – and beyond to the University of Western Sydney.

Figure 3 - Area Covered by the Penrith City Centre Plan

Source: Penrith City Centre Plan (2006)

Part of the Riverlink Precinct is identified as the Recreation and Tourist precinct in the City Centre Plan. The Plan identifies that the sports facilities at Woodruff Gardens and the rowing club along the river provide recreation opportunities for local residents and workers. The area has low scale development. Some tourist facilities such as a hotel and function centre already exist along the river.

The City Centre Plan further notes that for the Recreation and Tourist precinct:

- A recreational link between the city centre and the river is a priority;

- The extension of landscaping and civic improvements in High Street to the riverfront will be the priority to reconnect the city with the river and to create attractive and legible pedestrian links;
- The area along the railway line can be used for hotels and function centres sited in garden settings and supported by recreation and leisure activities;
- There is a potential to improve pedestrian and cycle connections across the river in this area by construction of a pedestrian bridge;
- The northern side of the river can accommodate more outdoor restaurants and cafes associated with local clubs; and
- The riverfront will be landscaped and new improved pedestrian walkways and cycleways will provide 'bridge to bridge' recreational opportunities.

The City Centre Plan also identifies Panthers, the Showgrounds, and the Mulgoa Road bulky goods corridor as part of the broader regional Penrith City even though they are not within the boundary of Penrith City Centre.

3.4 Penrith Employment Planning Strategy (2007)

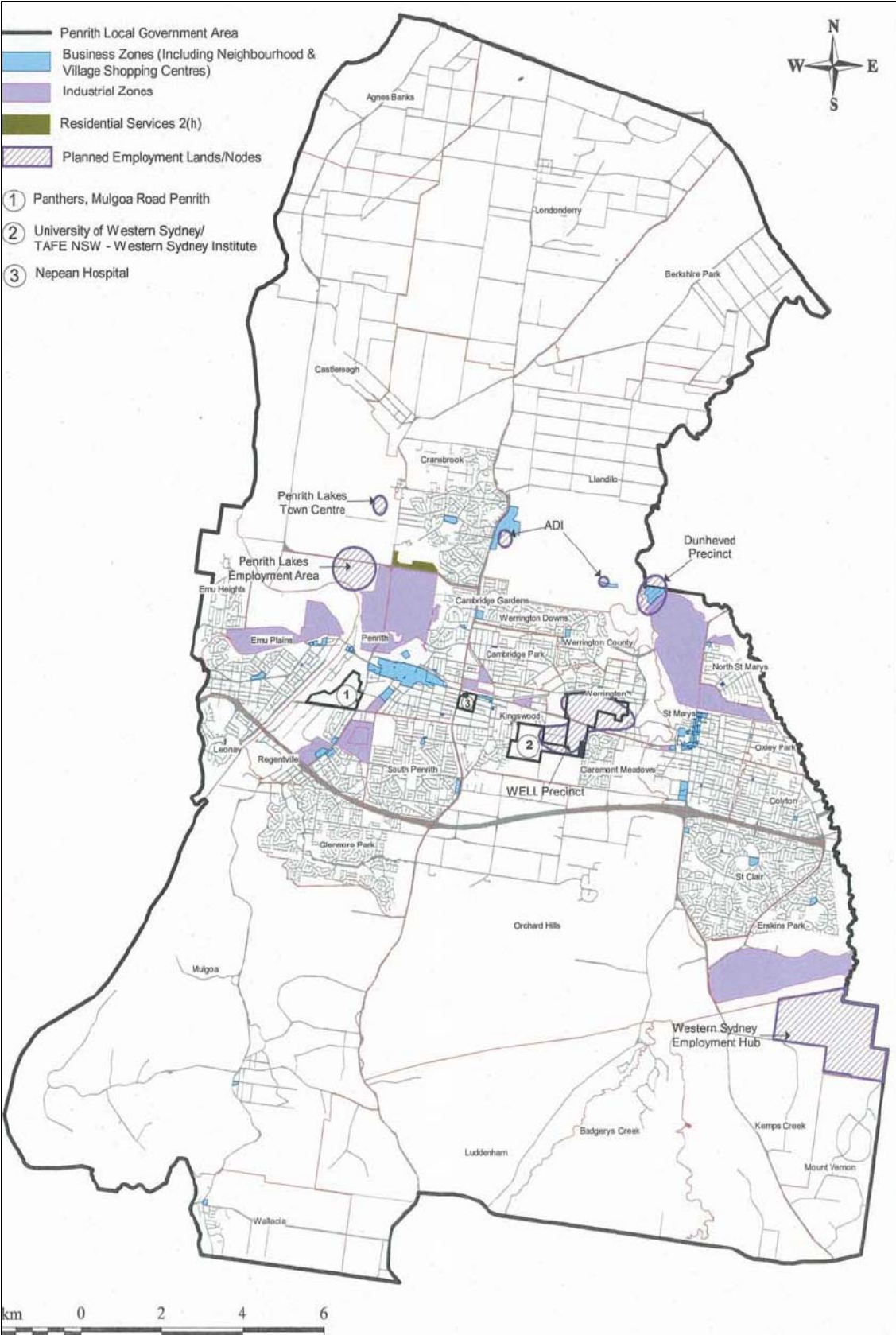
The Penrith Employment Planning Strategy identifies the City's role as one of the key centres in Western Sydney and the gateway to the Blue Mountains. The Strategy makes recommendations for the strategic direction of employment planning in Penrith LGA, and how it is to be managed over the next 10-20 years. In doing this, the Strategy enables Council to address issues confronting employment in the City, and provides direction for development of future employment land.

The Strategy identifies the availability of the skilled workforce and the provision of key infrastructure as factors informing industry's investment decisions in the local area. Furthermore, the Strategy includes examination of non-specific employment such as home based business and rural activities. It is understood, Council's strategic and urban planning agenda in relation to employment is focussed on the following employment planning principles:

- Facilitating renewal of existing town and neighbourhood centres within an agreed hierarchy;
- Facilitating the creation of well planned and sustainable new communities, including new employment areas in appropriate locations;
- Providing for a land bank of employment land;
- Building on the strengths of key community assets (e.g. TAFE NSW – Western Sydney Institute, University of Western Sydney and Nepean Hospital); and
- Providing reasonable access for Penrith workers to as wide a range of jobs as possible.

The Strategy notes that when considering the development and management of employment activities in the City of Penrith, proposals should demonstrate that they satisfy all of the above principles.

Figure 4 - Planned Employment Lands in Penrith LGA



Source: Penrith City Council

There are a number of objectives Council have considered in planning for employment, specifically:

- Ensure residents have access to jobs within the local area that are appropriate to their skill set;
- Provide opportunities for local, national and international businesses to locate within the Penrith Local Government Area;
- Ensure that land zoned for employment is capable for use as such, given locational, physical and environmental constraints;
- Ensure that there is sufficient zoned employment land to meet the demand for at least the next 15 years;
- Establish a strong retail hierarchy which will confirm and protect the status of major retail centres in Penrith;
- Enable the specialist retail/service areas of Penrith to capitalize on their location and market to maximize their potential;
- Ensure that new commercial, industrial and retail development is designed and carried out in a manner that responds to principles of sustainability;
- Ensure that new residential development areas make an appropriate contribution to employment in the local area; and
- Consolidate and expand key community infrastructure such as the UWS, TAFE NSW – Western Sydney Institute and Nepean Hospital to provide further employment opportunities.

Furthermore, the Strategy lists a range of policies, initiatives and strategies that are grouped in terms of partnership activities, planning initiatives and research monitoring and review activities.

3.5 Penrith Integrated Transport & Land Use Strategy (2008)

The Penrith Integrated Transport & Land Use Strategy was prepared as a joint initiative of Penrith City Council and the NSW Department of Planning. The Strategy aims to help ensure that the transport impacts of developments are positive and integrated with land uses (and vice versa). Key issues raised in the Strategy which could impact on development in the Riverlink Precinct include:

- Car ownership in Penrith is higher than the Sydney average;
- Lack of cycle facilities to make cycling a viable transport option;
- Patchy footpath networks with little connectivity between residential and key attractors;
- Vast distances between employment centres and public transport;
- The dispersed nature of employment across the LGA;
- New developments can create increased traffic congestion, these need to be supported by public transport provision (infrastructure and services levels); and

- Demand for more accessible parking in the LGA.

Key actions highlighted in the Strategy which influence development in the Riverlink Precinct include:

- Improve bus, cycle and rail networks;
- Locate development next to public transport;
- Increase densities to support public transport where suitable;
- Encourage mixed use zones and development;
- Encourage transport oriented development;
- Ensure residential development is within proximity to local facilities and services;
- Integrate residential with walking, cycling and public transport;
- Maximise access to transport within 800m of transport nodes; and
- Make sure the provision of public transport is available from the first day of occupation of new employment estates.

The Strategy identified a significant proportion of land in the Riverlink Precinct that represents an opportunity to provide additional housing and employment in an area close to existing facilities and public transport. Furthermore, the Strategy identified the following issues and opportunities for Penrith SLA (Penrith, Jamisontown, South Penrith, and Kingswood) which impacts on the Riverlink Precinct:

- Infill development and increased residential density locations to complement Penrith CBD and improve viability of Penrith CBD;
- Gaps in the bus network on Mulgoa Road to serve the residential population;
- Missing links in the cycle network both on and off road;
- Need for future cycling connections to employment release areas; and
- Consider improving links to Panthers Stadium and the Panthers Club.

3.6 Penrith Riverlink Precinct Plan (2008)

The Riverlink Precinct Plan is inclusive of that land along the eastern bank of the Nepean River between the Main Western Railway Line and the M4 Motorway and east to Mulgoa Road. Land within the Precinct is under multiple ownerships with sites belonging to Penrith Panthers (Panthers/ING Partnership), Penrith City Council, Blaikie Road and Tench Avenue Landowners Group, NSW Government and others.

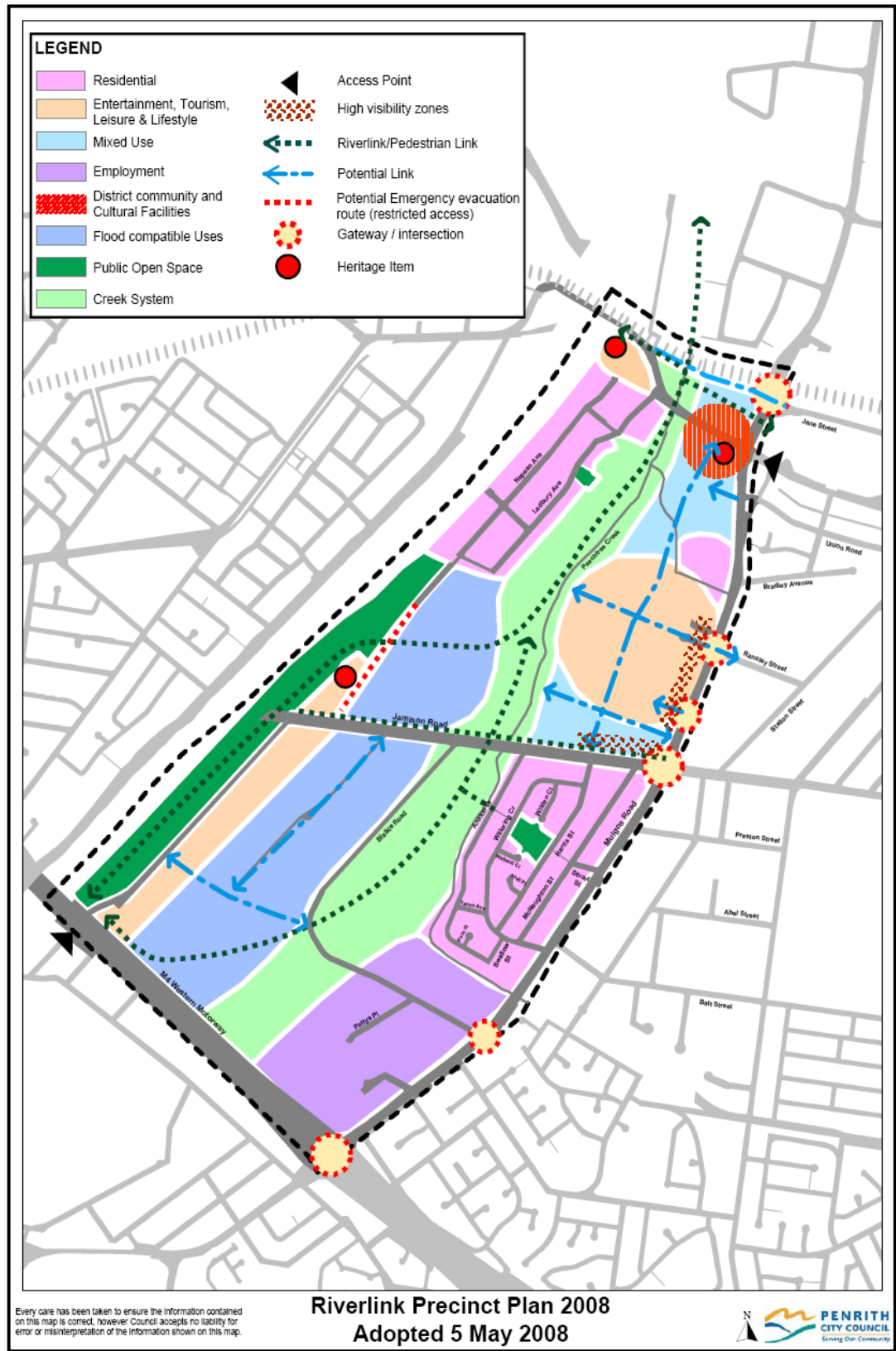
The intention of the Plan is to outline urban design principles, plan elements, identify activity nodes, and inform the planning process at Council. The aim for the Precinct is to deliver regional entertainment, tourism, leisure and lifestyle facilities as well as a mix of employment and residential uses. The Nepean River will become a key focal point for the Precinct, with development designed to showcase and enhance connections to the River.

The planning of the Riverlink Precinct presents an excellent opportunity to employ precinct wide design principles. The key principles are:

- Creating a cohesive and well connected precinct;
- Enhancing and activating Mulgoa Road as a significant approach to Penrith City Centre;
- Reinforcing key intersections as gateways to the Precinct and the Penrith City Centre;
- Creating a clear and legible public domain framework of streets and open space;
- Creating a new local north-south access link between Jamison Road and the Great Western Highway;
- Creating an exciting core of entertainment, leisure and lifestyle uses around the existing club;
- Incorporating sustainability best practice;
- Connecting Riverlink pathways with the Great River Walk;
- Encouraging views of the Blue Mountains from the public domain;
- Encouraging design excellence;
- Improving connectivity through the Precinct; and
- Enhancing Peach Tree Creek.

The Riverlink Precinct Plan outcomes are illustrated in the following map.

Figure 5 - Riverlink Precinct Plan (2008)



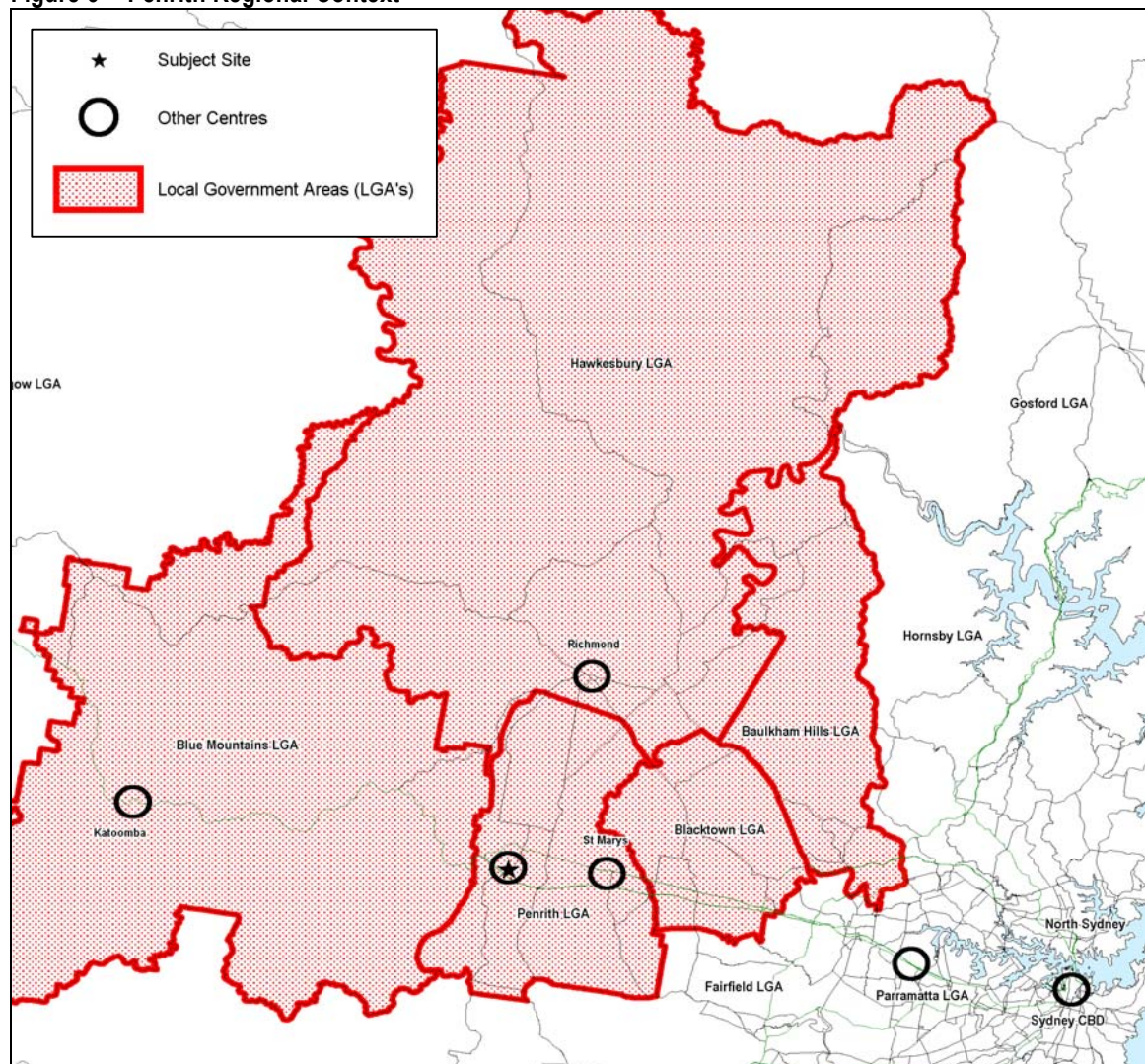
4. DEMOGRAPHIC AND SKILLS ANALYSIS

4.1 Population Forecasts

Hill PDA analysed the NSW Department of Planning's Metropolitan Strategy forecasts for the North West Sub-Region in order to ascertain population and dwelling growth forecasts for Penrith and surrounding areas. The Strategy indicated the North West Sub-Region as a whole is forecast to accommodate 80,000 new dwellings to 2031. Penrith will accommodate the largest component of new dwellings in the Region to 2031 (25,000 dwellings), followed by Baulkham Hills (21,500 dwellings) and Blacktown (21,500 dwellings).

Whilst it is recognised that household sizes vary and indeed are forecast to reduce, Hill PDA have assumed 2.6 persons per household to enable population forecasts based on the dwelling forecasts in the Metropolitan Strategy. As a result, Penrith's population is estimated to increase by around 1.36% per annum to 2031, ahead of Baulkham Hills (1.34%) and Blacktown (0.83%).

Figure 6 - Penrith Regional Context



4.2 Resident Demographic Characteristics

Given the Riverlink Precinct's regional significance, it is necessary to examine the demographics of Penrith, Blue Mountains and Hawkesbury LGA's, as the residents are the existing and future end users of the Precinct.

Based on an analysis of 2006 ABS Census data the key demographic characteristics and trends impacting on potential development in the Riverlink Precinct are:

- Penrith has a young population, with a low proportion of residents aged 60 years and above and a median age of 32 years. The Blue Mountains LGA has the oldest population, with a median age of 39 years and a greater proportion aged 45 years and above.
- Penrith LGA has an average of 2.9 persons per household. This is higher than the Blue Mountains (2.6 persons) and Hawkesbury (2.8 persons) LGA's.
- Home ownership is still the priority for residents in Penrith LGA; however a greater proportion of residents rent in the Penrith (26.6%) and Hawkesbury (24.9%) LGA's than in the Blue Mountains (19.8%).
- The majority of households across the trade area are family households. Penrith has the greatest proportion (78.9%), with approximately half of these families having children. Penrith LGA also has the highest proportion of one parent families whilst the Blue Mountains LGA has the highest proportion of couples without children.
- Single residential dwellings are the dominant housing type, particularly in the Blue Mountains LGA.
- Slightly higher median weekly household incomes are found in Penrith (\$1,147) and Hawkesbury (\$1,146) LGA's than in the Blue Mountains (\$1,093).

Note employment trends are further analysed in the following sections of this chapter. The ABS census tables defining the above results are provided in Appendix 1 of this report.

4.3 Resident Workforce by Occupation

The characteristics of the resident workforce are an important factor in defining a region's employment strengths and weaknesses. It is important to note that the resident workforce (or labour force) may travel outside the local government boundary to work.

Table 3 - Resident Employment by Occupation by LGA

Occupation	Penrith LGA		Hawkesbury LGA		Blue Mountains LGA	
	2006	% change 1996 - 2006	2006	% change 1996 - 2006	2006	% change 1996 - 2006
Managers	9.6%	18%	12.6%	7%	11.6%	8%
Professionals	12.2%	24%	14.6%	19%	26.6%	22%
Community, Personal Services	8.1%	2%	8.5%	5%	10.2%	2%
Clerical, Administrative	18.1%	34%	14.9%	24%	13.6%	24%
Sales Workers	9.9%	6%	8.2%	-3%	8.1%	0%
Technicians, Trade	15.1%	10%	17.9%	12%	12.7%	18%
Machinery Operators, Drivers	10.0%	10%	7.8%	4%	4.0%	-3%
Labourers, Related Workers	10.0%	19%	9.6%	14%	7.0%	13%
Inadequately described or Not Stated	1.9%	-17%	1.7%	-14%	1.3%	-27%
Total	100.0%		100.0%		100.0%	

Note: 'Occupation' was coded to the 2006 Australian and New Zealand Standard Classification of Occupations (ANZSCO). This has replaced the 1996 Australian Standard Classification of Occupations (ASCO) Second Edition. In 1996 and 2001 'Technicians and trades workers' includes Engineering, Information and Communications Technology and Science Technicians and Tradespersons.

Analysing the occupation trends of residents within Penrith, Hawkesbury and Blue Mountain LGA's from 1996 to 2006, Census data indicates that:

- Penrith had higher proportions of clerical and administrative workers than other occupations in 2006, largely due to the extent of state and local government offices and agencies located in Penrith City Centre;
- Hawkesbury LGA had a higher proportion of residents working as technicians and trade workers, whilst the Blue Mountains had a higher proportion of residents working as professionals than other occupations in 2006;
- The Blue Mountains had the highest proportion of residents working in white collar occupations (e.g. professionals, managers etc), than the other LGA's; and
- Penrith and Hawkesbury LGA's both had a third of residents working in blue collar occupations (e.g. labourers, machinery operators/drivers, trade workers etc).

4.4 Resident Workforce by Industry

The ABS 2006 Census shows that those industries, which employed the most residents in Penrith LGA, included: manufacturing, retail, construction, health care and social assistance. However, since 1996 Penrith experienced a significant increase in residents working in utilities, construction, transport, health care and social assistance.

Table 4 - Resident Workforce by Industry by LGA

Industry	Penrith LGA		Hawkesbury LGA		Blue Mountains LGA	
	2006	% change 1996 - 2006	2006	% change 1996 - 2006	2006	% change 1996 - 2006
Agriculture, forestry, fishing	1%	-24%	3%	-28%	1%	22%
Mining	0.3%	-7%	0.2%	-14%	0.3%	-33%
Manufacturing	13%	-2%	11%	3%	7%	0%
Electricity, gas, water, waste services	1%	33%	1%	27%	1%	18%
Construction	9%	29%	11%	28%	7%	20%
Wholesale trade	6%	-15%	5%	-23%	3%	-17%
Retail trade	12%	25%	10%	34%	10%	23%
Accommodation, food services	6%	12%	5%	7%	7%	1%
Transport, postal, warehousing	7%	33%	5%	30%	4%	10%
Information media, telecomm.	2%	-30%	2%	-17%	2%	-15%
Financial, insurance services	4%	-3%	2%	-9%	3%	-9%
Rental, hiring, real estate services	2%	23%	2%	19%	2%	24%
Professional, scientific, technical	4%	11%	5%	18%	6%	17%
Administrative, support services	3%	26%	3%	38%	3%	19%
Public administration, safety	7%	22%	9%	-3%	9%	24%
Education, training	6%	26%	8%	15%	14%	14%
Health care, social assistance	9%	33%	9%	18%	14%	20%
Arts, recreation services	1%	4%	1%	9%	2%	20%
Other services	4%	-3%	5%	3%	4%	-4%
Inadequately described/Not stated	3%	-7%	3%	-4%	2%	-9%
Total	100%		100%		100%	

Source: ABS 2006 Census

Those industries which employed the most residents in Hawkesbury LGA included manufacturing, construction and retail trade. By comparison those industries which employed the most residents from the Blue Mountains included education, training, health care, social assistance, public administration, and safety. There was also a significant drop in residents working in agriculture, mining, telecommunication and wholesale trade industries across most of the LGA's.

4.5 Where Residents Work

Journey to Work data, as compiled by the TDC from ABS Census data, uses employment counts for specific locations, to analyse the issues of commercial centres, daytime population, profile of resident workforce, industry trends and method of travel to work. Journey to Work data also analyses where residents in the North West Sub-Region travel to for work.

Table 5 - Usual Residence by Selected Areas of Workplace North West Sub-Region 2006

Place of Usual Residence	Place of Work					
	Baulkham Hills	Blacktown	Blue Mountains	Hawkesbury	Penrith	Sydney
Baulkham Hills	40.2%	8.3%	0.3%	5.8%	2.0%	2.3%
Blacktown	15.9%	42.6%	0.2%	3.6%	10.1%	3.0%
Blue Mountains	0.7%	2.6%	23.0%	1.4%	12.5%	0.6%
Hawkesbury	3.5%	4.2%	0.3%	24.6%	4.5%	0.2%
Penrith	3.5%	14.4%	1.9%	4.2%	56.6%	1.4%
Sydney	0.5%	0.3%	0.0%	0.1%	0.2%	12.4%

Source: TDC & ABS, JTW Data 2006

The results indicate:

- Only a small proportion of workers in the North West Sub Region resided in Sydney SLA;
- 56.6% of jobs in Penrith are filled by workers residing in Penrith LGA, the highest resident worker containment rate in the North West Sub-Region;
- A significant proportion of workers in Penrith travel from Blacktown and the Blue Mountains;
- A significant proportion of jobs in Blacktown are filled by Penrith residents; and
- The majority of residents in the Blue Mountains and Hawkesbury leave the LGA boundary to work.

4.6 Jobs versus Working Residents by Industry

The table below provides the number of jobs located in the City of Penrith compared to working residents by industry type.

Table 6 - Jobs and Working Residents by Industry Type in City of Penrith 2006

Industry	Jobs in Penrith	Working Residents	Shortfall
Agriculture, Forestry and Fishing	467	581	114
Mining	180	196	16
Manufacturing	6,496	10,990	4,494
Electricity, Gas, Water and Waste Services	808	1,128	320
Construction	3,499	7,867	4,368
Retail Trade	7,775	10,168	2,393
Accommodation and Food Services	3,822	4,624	802
Transport, Postal and Warehousing	2,252	5,952	3,700
Information Media and Telecommunications	472	1,344	872
Financial and Insurance Services	908	3,744	2,836
Rental, Hiring and Real Estate Services	918	1,301	383
Professional, Scientific and Technical Services	1,951	3,489	1,538
Administrative and Support Services	1,082	2,403	1,321
Public Administration and Safety	4,195	5,865	1,670
Education and Training	5,548	5,115	-433
Health Care and Social Assistance	6,773	7,438	665
Arts and Recreation Services	688	950	262
Other Services	2,174	3,455	1,281
Not Stated	522	2,213	1,691
Total	50,530	78,823	28,293

Source: Journey to Work 2006

Penrith has a relatively low job containment rate of 63% (jobs to working residents ratio), although this is indicative of outer local government areas. There are significant jobs shortfalls in the industries of construction, transport and storage, information / telecommunications and also in administrative and professional services including finance and business services. All these industries have a containment rate below 50%.

4.7 Jobs in the Region

Journey to Work data also indicates where particular job types are located. Penrith is diverse in its industry base and is not reliant on any one particular industry. However, the most represented industries (by number of

workers) in 2006 were retail trade, health care, social assistance, education, and manufacturing. Like Penrith, manufacturing and retail jobs were prevalent in the Hawkesbury, however public administration and safety is also a major employer in the LGA.

Table 7 - Jobs in Penrith, Blue Mountains and Hawkesbury by Industry 2006

Industry	Penrith LGA	Hawkesbury LGA	Blue Mountains LGA
Agriculture, Forestry, Fishing	0.9%	5.0%	1.1%
Mining	0.3%	0.1%	0.1%
Manufacturing	12.4%	12.7%	3.2%
Electricity, Gas, Water, Waste Services	1.5%	0.5%	0.8%
Construction	6.7%	8.0%	5.5%
Wholesale Trade	3.5%	3.4%	1.9%
Retail Trade	14.9%	11.8%	14.7%
Accommodation, Food Services	7.3%	6.9%	12.6%
Transport, Postal, Warehousing	4.3%	3.4%	3.6%
Information, Media, Telecommunications	0.9%	1.8%	1.2%
Financial and Insurance Services	1.7%	1.4%	1.8%
Rental, Hiring and Real Estate Services	1.7%	1.6%	2.1%
Professional, Scientific, Technical Services	3.7%	4.3%	6.3%
Administrative and Support Services	2.1%	1.9%	2.5%
Public Administration and Safety	8.0%	12.3%	6.8%
Education and Training	10.7%	8.9%	11.7%
Health Care, Social Assistance	12.9%	9.1%	16.4%
Arts, Recreation Services	1.3%	1.5%	2.1%
Other Services	4.2%	4.5%	4.6%
Inadequate and Not Stated	0.9%	1.1%	1.1%
Total	100%	100%	100%

Source: ABS Census and JTW 2006 Data.

Accommodation and food services are major employers in the Blue Mountains, along with education, training, health care and social assistance. Retail trade is also a major employer in the Blue Mountains given the strength of the tourism industry in the LGA.

4.8 Job Forecasts

The NSW Department of Planning's North West Sub-Regional Strategy establishes an employment capacity target of 130,000 additional jobs for the North West Sub-Region between 2001 and 2031. Of this, Penrith City Centre is expected to see growth of 10,000 additional jobs to 2031.

Table 8 - Employment Capacity Targets by LGA for North West Sub-Region (2001-2031)

LGA	2001	2031	Growth
Baulkham Hills	53,000	100,000	47,000
Blacktown	83,000	128,000	45,000
Blue Mountains	19,000	26,000	7,000
Hawkesbury	24,000	27,000	3,000
Penrith	58,000	86,000	28,000
Total	237,000	367,000	130,000

Source: NSW Department of Planning, North West Sub-Regional Strategy (2007)

Whilst the Transport Data Centre is yet to release job forecasts by industry using 2006 ABS data as the base year, the 2001 TDC forecasts indicate declines are expected in clothing/textiles, utilities, printing, and finance industries. In contrast the main industries located in Penrith LGA to experience job growth are forecast to be in food industries, transport, storage, chemicals, and personal services (see Appendix 2).

4.9 Implications for the Riverlink Precinct

Key characteristics of Penrith and the North West Sub-Region resident population which influences demand for land uses in the Riverlink Precinct includes:

- Penrith has a young population compared to surrounding locations, and has a predominance of families with children;
- The majority of residents live in detached housing;
- Dwelling and population forecast growth is significantly higher in Penrith LGA than other areas in the North West Sub-Region with numerous Greenfield release areas planned for the LGA;
- Around half of Penrith's working residents leave the LGA boundary for employment, with a large proportion travelling to Blacktown;
- The major employers in Penrith LGA are in the retail trade, education, health care and manufacturing; and
- There is a lack of white collar jobs in Penrith LGA, even though the proportion of skilled residents has increased significantly since 1996.

5. PROPOSED DEVELOPMENT IN PENRITH

5.1 Major Projects

Future urban release areas in Penrith are required to satisfy the Metropolitan Strategy objectives and to provide Penrith with new residential and employment opportunities.

The NSW Department of Planning's North West Sub-Regional Strategy indicates Penrith LGA has a dwelling capacity target of 25,000 additional dwellings to 2031. The table below indicates proposed urban areas in Penrith will accommodate approximately 14,500 dwellings. The remaining required dwellings will be accommodated by infill development in existing centres and other locations currently under investigation.

Table 9 - Penrith LGA Proposed Major Development

Precinct	Size (ha)	Forecast Dwellings	Forecast Population	Forecast Jobs	Forecast Employ. Land (ha)
Werrington Mixed Use Area	22	240	650	650	-
Werrington Enterprise Park	58	tba	tba	6,134	-
South Werrington Urban Village	48	414	1,178	770	19
Claremont Meadows Stage 2	63	511	1,500	-	-
Caddens	127	1,247	2,700	350	-
WELL Precinct Remainder	336	588	1,972	-	-
Penrith Lakes	1,937	4,900	14,000	5,260	60
Waterside	53	701	2,150	800	17
Glenmore Park Stage 2	225	1,628	4,600	-	-
St Marys Release Area	1,545	3,420	8,900	3,460	43
North Penrith Urban Area	50	850	2,000	1,100	10
Erskine Business Park	510	-	-	6,000	326
Western Sydney Employment Lands	tba	tba	tba	tba	tba
Riverlink	370	tba	tba	tba	tba
Total	5,344	14,499	39,650	24,524	475

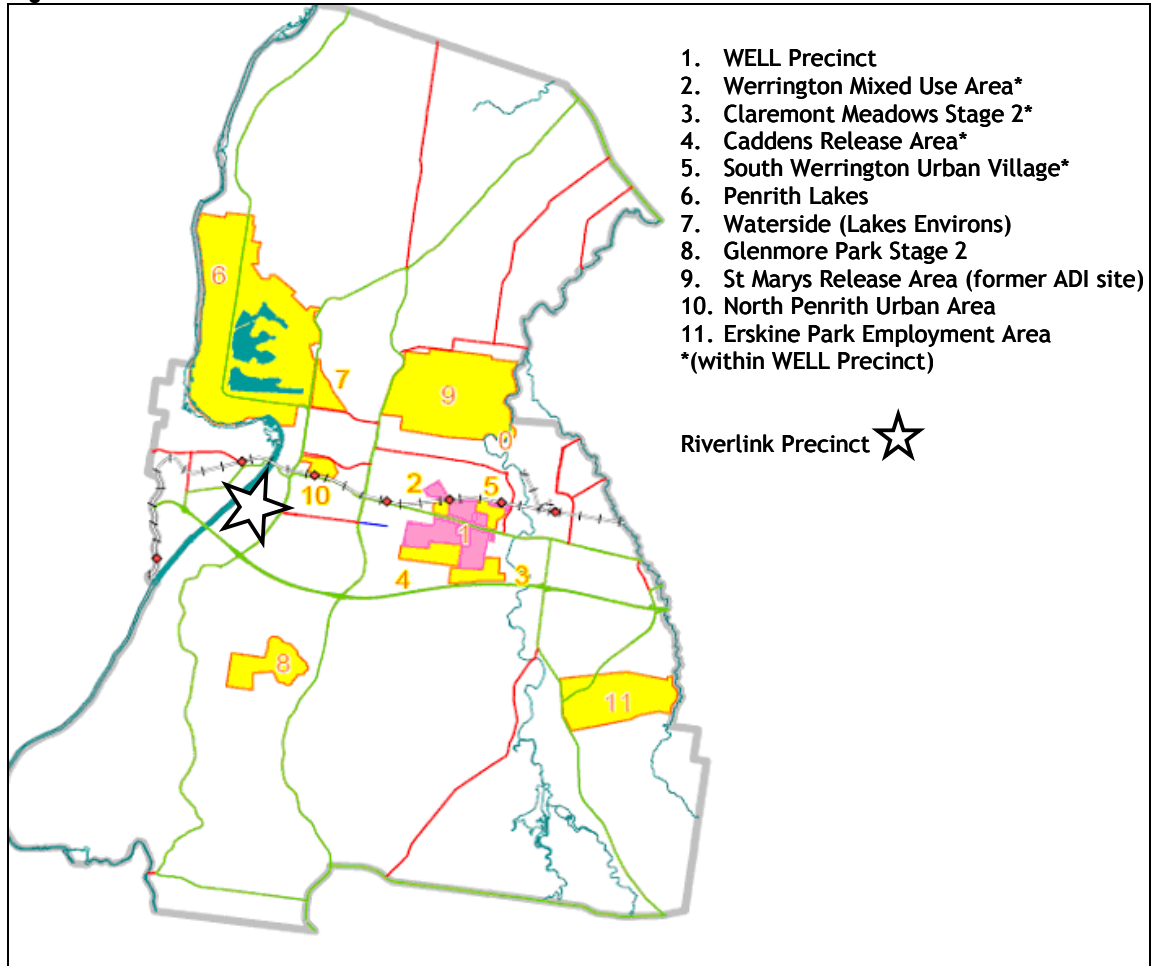
Source: Penrith City Council, New Urban Lands (February 2009); Panthers Penrith Concept Plan (November 2008).

The North West Sub-Regional Strategy also establishes an employment capacity target of 28,000 additional jobs for Penrith LGA between 2001 and 2031, of which 10,000 are expected for Penrith City Centre. The above table indicates proposed release areas will deliver 24,500 jobs to the market upon completion. In addition to the above, it is understood Werrington TAFE and UWS is expecting an additional 30,000 employees to 2016¹.

It is understood the majority of the release areas are expected to be implemented over the next five years, with Waterside and Claremont Meadows Stage 2 currently delivering residential dwellings².

¹ Source: Penrith Integrated Transport & Land Use Strategy (2008)

² Source: Penrith Integrated Transport & Land Use Strategy (2008)

Figure 7 - Penrith Urban Release Areas

Source: Penrith Integrated Transport & Land Use Strategy (2008)

5.2 WELL Precinct

The WELL Precinct is east of the Riverlink Precinct. The Precinct's location, close to existing and established educational providers presents an opportunity to demonstrate sustainable models of new urban development through mixed-use living, learning and enterprise. The WELL precinct comprises sub precincts for new residential/employment areas identified as Caddens, South Werrington Urban Village, Claremont Meadows Stage 2, Werrington Mixed Use Area and Werrington Enterprise Park.

Major landowners within the precinct are the University of Western Sydney, Landcom and the Western Sydney Institute of TAFE.

Werrington Mixed Use Area

The Werrington Mixed Use Area provides for a mixed use zone for both residential and employment lands, inclusive of higher density residential development and high technology industries. It is understood landowners are currently considering site options in light of the Government's decision not to move forward with the proposed UWS rail station.

Werrington Enterprise Park

It is envisaged the Werrington Enterprise Park will attract a range of activities and Business Park, campus-style development, encouraging employment opportunities that will help to diversify the employment base in the local economy. Opportunities also exist for business activities with a focus on 'creative enterprises' to locate on within the Park.

South Werrington Urban Village

The South Werrington Urban Village proposes low density to the west with medium density closer to Werrington Station. Recreation areas, conservation areas and employment areas for light industry are also proposed.

Claremont Meadows Stage 2

Stage 2 of the estate is currently under development with 180 lots released and 98 new houses already established. The LEP for Claremont Meadows Stage 2 was recently revised to contemporise the residential, drainage and open space provisions and also introduce a flora and fauna conservation zone

Caddens

The Caddens precinct will accommodate a newly targeted residential neighbourhood inclusive of around 1,247 dwellings, a Precinct Centre for the WELL Precinct (with retail, commercial and a community centre), parks, cycleways, and environmental conservation area and relevant infrastructure.

5.3 Penrith Lakes

Penrith Lakes is north west of the Riverlink Precinct. Upon completion, the Penrith Lakes Scheme will represent a major water based recreational resource for Western Sydney, with the quarried area being rehabilitated to include 2 main recreational lakes, a wildlife lake and a number of smaller water bodies, plus an urban area. The Sydney International Regatta Centre and the Penrith Whitewater Stadium, legacies of the Sydney 2000 Olympics, are already operational.

Planning for the scheme is being conducted under Part 3A of the EP&A Act and progressed through the preparation by Penrith Lakes Development Corporation (PLDC) of a Concept Plan for the site. The draft plan submitted to the Department of Planning in 2007 proposes 800ha of parkland, 770ha of lakes, 350ha of urban land, and 60ha of employment. PLDC has advised that it is currently reviewing their plan for the site.

After various concept plans being lodged with the Department of Planning, it is understood the plan is currently being reviewed by the PLDC and will likely result in a third planning option being pursued for the site.

5.4 Waterside

Owned and developed by Stockland, Waterside (located north east of the Riverlink Precinct) is a new urban area located between Penrith Lakes and Cranebrook. Development includes residential dwellings, in detached, multi-unit and apartment forms as well as employment opportunities along the Andrews Road frontage.

It is understood the delivery of the project was impacted upon by the adverse housing market, with DCP and Design Guidelines currently being reviewed to encourage development. Furthermore, a rezoning application submitted to Council in 2007 to expand the range of permissible employment land uses in the 2(h) Residential Services zone (along Andrews Road), is being progressed as part of Stage 1 of Penrith's City Wide Local Plan.

5.5 Glenmore Park Stage 2

Glenmore Park Stage 2, located south of the Riverlink Precinct beyond the M4, is a 225ha urban release area which includes mixed density residential, a village centre, school, and open space. Plans also include the dedication of 62ha of Cumberland Plain Woodland for inclusion in the Mulgoa Nature Reserve, and a biodiversity and riparian corridor extending through the estate to The Northern Road. The street pattern will also provide connectivity to the existing Glenmore Park estate as well as a new road connection to The Northern Road via Bradley Street.

5.6 St Marys Release Area

The St Marys Release Area is located north east of the Riverlink Precinct and is being developed by Delfin Lend Lease. That section within Penrith LGA is divided into:

1. Western Precinct (229ha comprising Urban Zoned Lands);
2. Central Precinct (133ha comprising 95ha of urban Zoned Land and 38ha of Employment Zoned Land); and
3. South Dunheved Precinct (12ha comprising Employment Zoned Lands).

Around 3,400 dwellings are projected to be development in the Penrith LGA portion of St Mary's and a further 2,000 dwellings in the Ropes Crossing portion within Blacktown LGA. The South Dunheved Precinct is currently being developed. The Western and Central Precincts are currently in the final planning phase and proposed to be developed over the next 10-12 years. The St Mary's Release Area also contains the 900ha Wianamatta Regional Park, 565ha of which are contained within the Penrith LGA.

5.7 North Penrith Urban Area

The North Penrith urban Area (formerly known as North Penrith Army Land) is owned by the Department of Defence and is located adjacent to Penrith Railway Station, north east of Riverlink. It is a largely level, vacant site and is partially used as a commuter car park and Defence multi-user depot. Plans for North Penrith Urban Area provides for four key land use components:

1. Employment Precinct maximising employment generation in a variety of light industry, service and related commercial activities;
2. Urban Village Precinct that provides for a range of retail/commercial uses to service the new community;
3. Residential Precinct that provides a range in choice of housing types and densities and opportunities for home based businesses; and

4. Open Space/Community Facilities Precinct that provides for a variety of open space activities and for the protection of heritage items and related vistas.

Dialogue has recently commenced with the Department of Planning over future strategic direction for the site, with the Department of Defence pursuing the sale process.

5.8 Penrith Panthers Expansion

The Penrith Panthers site, 2km from Penrith CBD, is located within the identified Riverlink Precinct and bound by Mulgoa Road to the east, the Nepean River to the west, the Council owned Carpenter site to the north, and Jamison Road to the south. The 75ha site includes the Panthers Club, associated lands and facilities.

Panthers and their joint venture partner ING Real Estate have lodged a concept plan with Council for the expansion and redevelopment of the site. The proposed vision is to accommodate a range of entertainment uses including cinema's, bowling club, restaurants, cafes, retail, health, wellness and aquatic facilities, accommodation and a multi use arena. A mix of residential dwellings and campus style business park accommodation will surround the entertainment precinct. Passive recreational opportunities will be enhanced with parklands, open space, walking and cycling tracks.

It is understood Panthers/ING are still examining the distribution of land uses across the site, however they have provided the following preliminary schedule of proposed land uses (as at April 2009).

Table 10 - Panthers/ING Proposal – Indicative Yield Schedule

Land Use	Stage 1 2011-2014	Stage 2 2012-2018	Stage 3 2012-2018	Total
Club (existing plus expansion)	42,200	-	-	42,200
Conference Facilities	6,000	-	-	6,000
Hotels (existing plus expansion)	31,300	10,400	-	41,700
Serviced Apartments	-	9,000	-	9,000
Brand Outlet Centre/Bulky Goods	25,000	18,000	-	43,000
General Retail	15,000	1,500	-	16,500
Restaurants, cafes, etc	8,000	-	-	8,000
Commercial Suites	7,500	6,000	-	13,500
Business Park (four pods of 5,000sqm)	-	25,000	-	25,000
Entertainment Attractions (cinema/bowling etc)	8,500	-	-	8,500
Multi Use Arena (4,500-5,000 seats)	30,000	-	-	30,000
Aquatic, health & wellness centre	-	4,000	-	4,000
Seniors Living (two facilities)	50,000	-	-	50,000
Residential	-	84,000	94,125	178,125
Carpark	129,000	52,000	35,775	216,775
Total Floorspace (GFA)	352,500	209,900	129,900	692,300
Residential Dwellings:				
Low Density	-	-	65	65
Medium Density	-	600	535	1,135
High Density	-	41	-	41
Total Residential Dwellings	-	641	600	1,241
Total Hotel Rooms and Serviced Apartments	466	233	-	699
Total Seniors Living	250	-	-	250
Total Carparks	4,360	2,208	901	7,469

Source: Penrith Panthers Indicative Yield Schedule, ING (17/04/09)

Based on the above schedule, Panthers/ING are proposing a three stage development delivering 67,500sqm (GFA) of retail floorspace, 38,500sqm (GFA) of commercial floorspace (inclusive of a business park), 1,241 residential dwellings, and extensive entertainment and hospitality facilities.

6. RESIDENTIAL LANDS ANALYSIS

6.1 Forecast Dwelling Growth

Hill PDA analysed the NSW Department of Planning's Metropolitan Strategy forecasts for the North West Sub-Region in order to ascertain dwelling growth forecasts for Penrith and surrounding areas which could influence demand for residential and retail uses in the Riverlink Precinct.

The Strategy indicated the North West Sub-Region as a whole is forecast to accommodate 80,000 new dwellings to 2031. Each LGA within the Sub-Region has different characteristics and will therefore play contrasting roles in regional housing supply. An appropriate mix of housing is encouraged across the Sub-Region. Whilst all areas will still predominately cater for detached housing, Penrith and Baulkham Hills have the opportunity to provide higher densities.

Whilst the majority of these dwellings will be in the North West Growth Centre (60,000 dwellings), Penrith LGA is forecast to accommodate around 25,000 new dwellings, equating to compounded growth of around 1.36% per annum to 2031.

Table 11 - Dwelling and Household Projections in North West Sub-Region to 2031

LGA	Existing Dwellings in 2006*	Increase in Dwellings to 2031 **	Total Dwellings in 2031	Annual Dwelling Growth Rate
Baulkham Hills	54,369	21,500	75,869	1.34%
Blacktown	93,412	21,500	114,912	0.83%
Blue Mountains	32,732	7,000	39,732	0.78%
Hawkesbury	22,902	5,000	27,902	0.79%
Penrith	62,165	25,000	87,165	1.36%
Total	265,580	80,000	345,580	

* Source: 2006 ABS Census Data. ** Source: North West Draft Subregional Strategy.

The Blue Mountains LGA and Hawkesbury LGA have forecast compound dwelling growth of around 0.78% and 0.79% respectively. These rates of growth have been used in determining demand for retail and commercial uses in the Riverlink Precinct (see Section 8 of this report).

6.2 Seniors Living

Apart from private residential dwellings, there are various seniors living developments across the Riverlink Precinct, and proposed by Panthers/ING. Penrith LGA contains 12 aged care accommodation facilities. These include both hostels with high dependence care, as well as self contained accommodation for those older persons capable of independent living.

The accommodation choices available for the aged are mostly located within the suburb of Penrith, with others located in St Mary's, Kemps Creek, Emu Plains, and Wallacia. The numbers of beds per hostel range from 40 at the Henry Fulton Nursing Home (Penrith) to 120 beds at the St Marys Garden Aged Care Centre (St Marys). Most of these facilities are currently running at full capacity.

The 12 aged care accommodation facilities combined provide 669 beds. The Penrith LGA provides 328 independent living units (not including Lemongrove Gardens Retirement Village which was unavailable for information).

Aged care facilities and nursing homes have the ability to draw upon a catchment area that expands further than their LGA boundaries. As such, this type of accommodation if located within Penrith LGA could draw on aged populations living not just within Penrith LGA, but the Hawkesbury LGA and Blue Mountains LGA as well.

Whilst Penrith had a relatively large contingent of young people at the 2006 census, 20.0% of the population were aged between 45-59 years and 12.0% aged over 60 years. As such, a certain number of those aged between say 55 and 75 years since the 2006 census may now have considered or currently be considering either independent or advanced care aged facilities for permanent accommodation.

Based on our research the majority of aged care accommodation facilities in Penrith LGA are currently fully occupied and with long waiting lists, concluding that current supply levels may be insufficient to cope with possible immediate demand.

Therefore, unless the supply of appropriate over 55's or nursing home accommodation grows in the LGA there is going to be a large undersupply. As such, any proposed development of aged care villa or nursing home accommodation is only going to alleviate the existing pressure on such services and accommodation type.

It is noted that a Anglican Retirement Village has recently been approved to develop accommodation for 100 persons at Kingswood, with at least a further 100 expected on an adjoining site and within Caddens.

6.3 Land Values and House Prices

When examining the Penrith residential market its apparent that whilst there has been a considerable amount of residential land transacted in the last 18 months, there has been a noticeable slowing down in the latter half of 2008 due to challenging economic conditions. There are a few residential development sites currently for sale, many with development approval and ready for construction to commence.

Table 12 - Residential Vacant Land Values (2009)

Suburb	Small Lot Vacant Land Values (\$/sqm)	Large Lot Vacant Land Values (\$/sqm)
Claremont Meadows	\$350-\$470	around \$300
Cranebrook	\$500-\$600	\$350-\$550
Emu Plains/Heights	\$430-\$550	\$300-\$400
Glenmore Park	\$420-\$520	NA
Penrith	\$500-\$750	\$350-\$450
St Marys	\$430-\$550	\$350-\$450

Source: Hill PDA Research 2009, RP Data, PIMS, Red Square.

Typically, average sized residential vacant lots achieve around \$400-\$500/sqm. Larger residential development sites (>700sqm) have been trading at around \$350-\$450/sqm. Areas with higher amenities, better access and more picturesque settings command higher land values, such sites by the Nepean River.

Table 13 - Property Prices for Houses & Units - 12 months to April 2009

Suburb	Houses	Long Term Trend	Units	Long Term Trend
Penrith	\$285,000	6.6%	\$189,000	6.8%
Clarmont Meadows	\$332,500	7.7%	SNR	SNR
Cranebrook	\$317,500	8.0%	SNR	SNR
St. Marys	\$255,000	6.5%	\$207,000	4.1%
Emu Plains	\$350,000	5.9%	\$325,000	5.5%
Glenmore Park	\$380,000	6.2%	\$337,000	10.2%
Kingswood	\$277,000	6.8%	\$178,000	1.7%
Penrith LGA	\$355,000	6.7%	\$275,000	4.8%

Source: Australian Property Monitors

In the 12 months to April 2009, property prices fell across the LGA consistent with the state wide trend. The median house and unit price in the suburb of Penrith is \$285,000 and \$189,000 respectively. Suburbs such as Claremont Meadows, Emu Plains and Glenmore Park have higher median prices. The long term trend (10 years) shows that Penrith LGA has seen house prices increase on average by 6.7% per annum and unit prices increase by 4.8% per annum.

According to local agents, there has been a significant increase in sales activity and market interest due to the increase in the First Home Owners Grant that occurred in October 2008. The last 6 months has seen increasing demand for all dwelling types (houses, townhouses and units) priced below \$400,000. Conversely, properties that are over \$400,000 have been moving slowly.

Penrith LGA may sustain prices (or in some cases improve) over 2009 as opportunities arise within the lower price end of the market (<\$500,000) due to first home buyers taking advantage of low interest rates and lower listed prices. Agents have indicated that the majority of enquires are from potential first home buyers, with investors showing little interest. Development sites have been selling relatively slowly, although larger blocks are proving more popular (over 500sqm).

6.4 Implications for the Riverlink Precinct

Advantages with residential development at the Riverlink Precinct include:

- Good visual amenity to the Nepean River;
- Strong proven market;
- High residual land values along the river front;
- In close proximity to Penrith CBD with good road and public transport access to the city;
- Views to the Blue Mountains and River will attract a considerable premium on prices; and
- Higher densities and mixed use are attractive along Mulgoa Road and other perimeter roads.

The main consideration with residential development in the Riverlink Precinct is the need to balance:

- Demand for recreational land along the River's edge;
- The constraints of flooding (e.g. flood levels, evacuation of persons);
- The visually sensitive nature of the area with views to and from the mountains;

- The rural perceptions of the City it conveys to residents and visitors in its undeveloped state; and
- Demand for redevelopment by rural/residential owners in Blaikie Road/Tench Avenue for residential development opportunities.

7. RIVERLINK PRECINCT TRADE AREA ANALYSIS

The definition of the trade area is determined by a number of factors including:

- The strength and attraction of the centre in question, determined by factors such as the composition, layout, ambience/atmosphere and car parking in the centre;
- Competitive retail centres and attractors, particularly their proximity to the subject centre and respective sizes, and offer;
- The location and accessibility of the centre, including the available road and public transport network and travel times; and
- The presence or absence of physical barriers, such as rivers, railways, national parks and freeways.

Hill PDA is of the opinion that given the potential end users in the Riverlink Precinct, there may be different trade areas for different land uses, although it is acknowledged that “dual shopping” could create overlapping trade areas. For example: the trade area for a supermarket on site may include those residents living on site. However, it is recognised that a family visiting the Panthers entertainment complex, may perform a dual shopping trip and pick up some groceries at the supermarket before going home.

It is acknowledged that retail uses do form a nexus relationship with entertainment and leisure uses and hence any proposed retail at the subject site has the potential to capture some trade from people spending time in the entertainment facilities.

However, for the purposes of examining retail and commercial office demand and the impact of any proposed floorspace in the Riverlink Precinct on existing provision in Penrith CBD, Hill PDA suggests the trade area for goods and services in Penrith CBD and Jamisontown (Mulgoa Road Precinct) includes the Local Government Areas of Penrith, Blue Mountains and Hawkesbury.

Hill PDA also expects some trade will be captured from the southern parts of the Greater Lithgow LGA and northern parts of Wollondilly LGA (Warragamba area), as well as a small proportion from Liverpool and Blacktown LGA's. However, these areas only account for around 2,000-3,000 residents so it is likely this additional expenditure will be counterbalanced by the escape expenditure from the three LGA's that make up the bulk of the trade area.

Hill PDA believes that it is unlikely provision at Riverlink or indeed Penrith CBD will capture trade from South West regions such as Camden and Campbelltown. This is because Campbelltown CBD comprises approximately the same amount of retail floorspace as Penrith CBD through the likes of Macarthur Square (76,000sqm), Campbelltown Mall (37,000sqm) and Marketfair Campbelltown (8,000sqm). There is also approximately 35,000-40,000sqm of strip retailing along Queen Street, and 50,000-60,000sqm of bulky goods floorspace along Campbelltown and Blaxland Roads in Campbelltown.

Similarly, Hill PDA believes that it is unlikely that trade will be captured from North West regions such as Castle Hill and Blacktown. Castle Towers Shopping Centre comprises over 100,000sqm of retail floorspace with major tenants such as David Jones, Myer, K-Mart, Target and Coles. It is understood that QIC Real Estate, owners of the centre, has plans to expand by a further 30,000sqm.

Other indoor centres in the Castle Hill area include Castle Mall Shopping Centre (10,000sqm) and Oakhill Village Shopping Centre (1,500sqm). There is also 60,000sqm of bulky goods floorspace in the likes of Hills Homemaker Centre (28,000sqm), Castle Hill Supa Centre (5,000sqm), the Castle Hill Homemaker City (13,000sqm) and Norwest Business Park.

There is also significant retail offer in Blacktown through indoor centres such as Westpoint Shopping Centre (81,000sqm) and Blacktown Mall (2,500sqm) as well as around an additional 25,000-30,000sqm of strip retailing. There are also 3 bulky goods clusters in the area being East Blacktown, Minchinbury and Prospect, which together provide around 50,000-60,000sqm of floorspace.

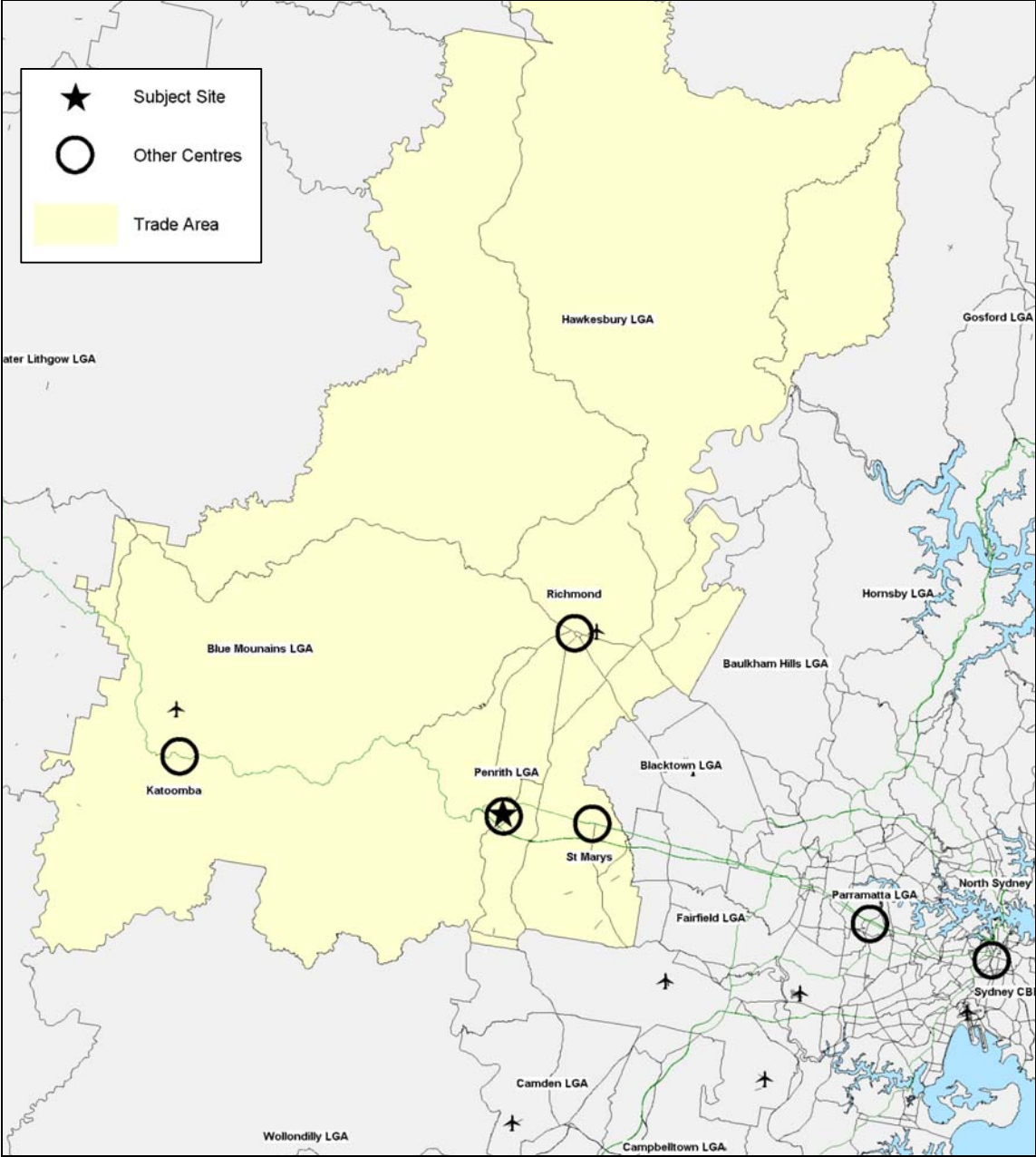
The 67,500sqm of retail proposed on the Panthers site includes a significant 25,000sqm brand outlet centre. Whilst the 8,000sqm of restaurants/café's could meet demand from the residential, working and visitor populations on site, the brand outlet centre is likely to have a wider trade area than encompassing just those people on site. The closest competitive development is the Brand Smart discount outlet in Mt Druitt. As a result it is likely the brand outlet will compete directly with retail provision in Penrith CBD.

It is also noted that the Panthers/ING proposal does not suggest the retail store types associated with 'general' retail. However, Hill PDA has been verbally informed by ING Real Estate that this retail is associated with active ground floor retail within the business park component of their proposal.

If the Panthers/ING proposal is developed, along with other regional attractors on site (e.g. water theme park) it could be expected that the trade area for regional entertainment and recreational attractions in the Riverlink Precinct would encompass the LGA's of Penrith, Hawkesbury and the Blue Mountains. There is also potential for overnight visitor trips from regional areas (any area within 3-3.5hours driving distance) for entertainment land uses at the Riverlink Precinct.

Hill PDA's trade area is visually represented in the following map.

Figure 8 - Riverlink Precinct Trade Area



8. RETAIL AND COMMERCIAL LANDS ANALYSIS

The Riverlink Precinct Plan (2008) identifies planned mixed use and employment zones for the Precinct. The employment zone covers the existing bulky goods cluster on Mulgoa Road, with the mixed use zones applying to land on the Panthers and Carpenter sites. As a result, Hill PDA undertook an analysis of demand for retail and commercial land uses with the intent of recommending uses for the mixed use and employment zones of the Precinct Plan.

8.1 Recent Retail and Commercial Trends

Retailing

Traditionally retailing has followed a hierarchy from regional through district to small neighbourhood centres. In the 1980s, Australian retail floor space totalled approximately 1.8sqm per person (excluding commercial and automotive retailing), which was roughly divided into equal components of regional, district and neighbourhood/local centres. More recently that hierarchy has been challenged by the following social and economic trends:

- Increase in the proportion of working women;
- Increase in the proportion of part-time and casual employment and reduction in full-time employment;
- Reduction in the proportion of households that match the 'traditional family' model and an increase in the number of single persons and single parent households;
- Increase disparity of household income, ranging from high double income households to households that rely on welfare;
- Ageing of the population; and
- Increasing working hours for those in full-time employment.

The retail industry's response to these changes has led to the growth and introduction of:

- The 'super-regional centre' (such as Westfields) which incorporate a large diversity of shops complemented by leisure activities and other facilities with an extensive trade area;
- 'Convenience community centres' usually dominated by a supermarket to meet daily and weekly shopping needs;
- 'Stand alone supermarkets' offering a just-in-time 'one stop shop' (petrol, video, pharmacy, groceries, fast food, etc);
- 'Power centres' and 'category killers' (eg Bunnings, Babyco, Toys-R-Us) offering an extensive range of single market goods in low cost buildings; and
- Bulky goods retailing, integrating warehousing with retail space;

These trends are polarising the retail hierarchy with the larger regional centres positioning themselves for a more dominant role in the provision of entertainment and customer services matched with increased retail floor space. The more successful smaller centres have moved towards the concept of convenience centres with

greater emphasis on food retailing, just-in-time shopping, fast foods, local services and petrol. Examples include the Woolworths Market Place concept.

Factory and Brand Outlets

Factory and brand outlets comprise sales of manufactured goods often described as 'seconds' or 'surplus', usually at discounted prices.

Bulky goods retailing, factory outlets and clearance centres in traditional industrial areas integrating warehousing with retail space are also recent innovations. As with power centres, they generally rely on low rents. While purpose-built factory outlets are common in the United States, most of Australia's major factory outlet centres occupy premises formerly occupied by traditional retailers, factories or other uses – eg Birkenhead Point and DFO Homebush.

There is some misconception that DFO retailing is a new phenomenon when it really has been around for the past few decades in some form or other. Originally it has been incorporated in small shops attached to factories. The inner parts of Sydney and Melbourne have had small individual factory outlet shops for some time mainly in relation to fashion goods, footwear and accessories.

The first factory outlet stores disassociated from factories began to appear in Australia during the 1980s. These stores established themselves in Redfern, Darlinghurst, Camperdown, Alexandria and Surry Hills. These stores sold goods that were out of season, damaged or failed to meet quality control standards. At the same time purpose built factory outlet centres began to appear in the USA. They were usually located on the fringes of retail centres in a similar manner to bulky goods centres.

In Sydney the first two factory outlet centres were conversions of buildings that were unable to trade effectively as traditional retail centres. They were Birkenhead Point and the Stockland Discount Centre at Maroubra. Later DFO at Homebush Bay opened as well as the upstairs level at Tuggerah Supacentra. More recently Harbour Towns, which are large multi-tenant super centres for brand outlet stores have opened up in Melbourne, Adelaide, Perth and the Gold Coast. These developments evolved as a solution to high cost development. They are larger format, lower turnover stores – typically around \$4,000 to \$5,000/sqm compared to \$6,000 to \$7,000/sqm in regular shopping malls.

Brand outlet centres is retail trend that is expected to continue and are expected to capture an increasing share of household expenditure – particularly in apparel and to a lesser extent homewares, travel goods and gifts.

Mixed Use

'Mixed use' is a term used to describe a development where there is a combination of residential and commercial uses occurring on the same site. Mixed use is seen as essential for a number of reasons:

- Different uses create a sense of place, community, life and vibrancy.
- Local people can make the most of the infrastructure by using it in different ways at different times of the day;
- Local people do not need to drive to their nearest facilities, providing health and environmental benefits to local residents through walking and fewer exhaust emissions;

- Residents are not left out of opportunities that may need long-distance travel or that may not be in their local area; and
- Local employment opportunities are available.

The type of non-housing uses that need to be provided as part of a successful housing development will vary with the size of the development, the possible populations, how accessible public transport is, and whether current or planned services and facilities are available.

However, if a mixed use development is not well designed, it can result in land use conflicts and can undermine redevelopment in the long term. For example, if a residential flat building is built over an enclosed shopping centre, it limits the redevelopment, expansion and remodelling potential of the shopping centre in the future.

Different communities choose mixed use development options for different reasons. Some see it as an excellent way to incorporate a mix of housing types on a small scale while enhancing traditional town character. Others see it primarily as a vehicle for revitalizing struggling areas and spurring economic development. Still others use it to create or enhance village centres. Suburban communities in metro areas have identified many benefits of mixed use development.

Commercial Office

Throughout the principal centres of Australia, but most particularly in Sydney, the location and demand for office accommodation has and continues to undergo change. It is a change which is being influenced by forces which are multi faceted. It is a change which is inextricably intertwined with structural changes in the economy, and the rapid advances in information and communications technology. Office based activity and office based employment has continued to grow, however this has not been uniform.

In a spatial context the evidence points towards a greater level of centralisation and specialisation in office based activity, with some sectors demonstrating a particularly strong preference for a central city location, such as those associated with communications, finance and insurance, property and business services.

Other sectors have shown a greater propensity to be footloose, giving rise to new focuses of office based activity in suburban locations both within centres and beyond, throughout the metropolitan region. In some locations there has been a relatively dramatic growth – locations such as the area stretching from North Sydney, St Leonards/Crows Nest, Chatswood, out towards North Ryde and Macquarie Park. Elsewhere, there has been a mixed performance, with centres such as Parramatta and Penrith playing increasingly important roles in Western Sydney, while others such as Liverpool experiencing comparatively little activity.

This lack of uniformity is also being reflected in the functional characteristics of various sectors of the economy. For some there is now an increasingly important need to integrate office based activities with their technical, assembly, manufacturing, servicing or warehousing functions. This is giving rise to demands for higher proportions of office floor space in industrial premises and in turn a blurring of the distinction between property types.

The emergence of suburban office parks, science parks and technology parks, which are characterised by low-rise buildings, ample provisions for car parking, and extensively landscaped environments, is essentially a

reflection of the response to these changes in demand for office and industrial floor space. An example is the Norwest Business Park.

The changes can also be seen in the various areas of manufacturing activity, transport and storage and wholesale trade related activity. In these sectors the increased use of information and communications technologies to facilitate faster more efficient and flexible supply chains, has generated increased demand for office based activity such as those associated with third party logistics. Evidence of this restructuring can be seen with the decision by Woolworths to relocate its Head Office operations to the Norwest Business Park and its review of logistics and supply chain operations ("Project Mercury") which sought to achieve some \$4.1 billion in savings by 2007.

This lack of uniformity is being accentuated by changes in labour market patterns – in how work is organised, where it is located, and what is being done. This can be seen in the emergence of home based work – a pattern found to be most evident in the middle and outlying regions of Baulkham Hills/Hawkesbury Hornsby/Kuring-gai and the Northern Beaches, as well as the inner areas of the metropolitan region.

It can be seen in the increasing rates of participation and part time work – which reflects a higher incidence in non-standard work. It can be seen in the growing importance of small business and changing occupation types – particularly those associated with the "knowledge economy". These facets in the profile of the labour market are now having an increasingly significant influence on the demand for office accommodation.

Outside of the Sydney Metropolitan Area there have also been increases in the number of commercial properties arising in new industrial precincts with several industrial lots having a 50/50 commercial/industrial component. Although the majority of land is being utilised for industrial purposes the bulk of industrial units have some form of commercial office suites attached. However, these commercial components play an ancillary office role and as such remain related to the attached industry. This trend reflects the changing nature of industry, whereby industrial accommodation requires higher ancillary office components than previously.

Technology and Research

Technology and research industries provide an opportunity to diversify a local area's base industries. Successful clustering can occur via research and development functions. There may be some scope for research facilities with affiliations with universities particularly in the areas of business and agricultural sciences. The Sydney examples of the Macquarie Technology Park (on the Macquarie University campus) and the Norwest Business Park are relevant.

An increasing proportion of the workforce is employed in tertiary service industries. Growth in tertiary industries will most likely be linked to population flows from Sydney. This is evident by increasing levels of education in Penrith and the North West Sub-Region and the lifestyle benefit of living in a rural environment.

Incubator Space

The tight supply of office space within Sydney CBD will push businesses into accessible and more affordable locations outside and around the Sydney Greater Metropolitan Area. Attributes of the Penrith LGA and surrounding areas include lower land values and rents comparative to locations such as Parramatta CBD, as well as an increasing professional skilled local workforce. Over the past few decades the Blue Mountains have

attracted an increasing proportion of professional working residents and there is an opportunity for Penrith to provide professional jobs for these workers.

Coupled with this growth in demand is the growing recognition of the value of the 'incubator space' concept. By way of example this concept has successfully been developed and supported by Sutherland Shire Council's SSHED (Sutherland Shire Hub for Economic Development)³. The Sutherland example is a purpose built business unit at Loftus designed to assist new and growing ventures in Sutherland Shire accelerate their growth by providing mentoring and other support in the start-up and early stages of development.

Another consideration in relation to flexible office space in Penrith LGA is Australia's growth in economic wealth and therefore the resulting growth in expenditure in the services economy. Accordingly demand for floorspace within physically attractive and accessible locations and with complementary uses such as the retailing of services has grown. These uses could be well suited to small units above ground floor retail in the Riverlink Precinct, and would help to support the vitality and viability of land uses in the Precinct.

8.2 Existing Retail and Commercial Floorspace Supply

In order to determine the adequacy of retail and commercial floorspace provision in Penrith, supply of existing floorspace needs to be considered and compared with demand. This also aids in the determination of impact of development in the Riverlink Precinct.

Based on the following sources, Hill PDA suggests there is currently around 264,750sqm of retail floorspace in Penrith:

- Ibecon floorspace data 2004;
- Penrith and St Mary's Town Centre Revitalisation Strategy, Hill PDA (2004);
- Property Council of Australia Shopping Centres Directory (2007); and
- Shopping Centre News Magazine (2008).

³ Further information can be found via the Sutherland Shire Council's website www.sutherland.nsw.gov.au, or alternatively at www.sshed.com.au.

Table 14 - Floorspace Supply in Penrith CBD and Jamisontown (sqm)

Retail Store Type	Westfield Penrith	Centro Nepean	Penrith Centre	At Home Penrith	Henry Lawson Centre	Nepean Shop' Centre	Harvey Norman Centre	South-lands	Other*	Total
Department Store	20,114	-	-	-	-	-	-	-	-	20,114
Disc. Depart. Store	15,835	8,430	-	-	-	-	-	-	-	24,265
Supermarket	5,805	4,325	-	-	-	1,500	-	1,225	-	12,855
Bulky Goods	1,200	-	2,001	27,335	3,203	-	34,306	-	54,938	122,983
Specialty	33,480	7,642	2,133	-	3,136	700	-	3,470	33,969	84,530
Retail Floorspace	76,434	20,397	4,134	27,335	6,339	2,200	34,306	4,695	88,907	264,747
Shop Front Commercial	3,028	-	-	169	2,254	-	-	-	26,300	31,751
Other	8,834	584	3,685	-	864	-	-	-	5,022	18,989
Total Floorspace	88,296	20,981	7,819	27,504	9,457	2,200	34,306	4,695	120,229	315,487

* Includes other bulky goods retailers in Mulgoa Road area (including Penrith Trade Centre and Home Court Complex) and bulky goods and strip retailers in the CBD – the majority of which are on High Street. Source: Hill PDA physical land use survey 2004, Property Council of Australia 2007, SCN 2008, Ibecon 2004.

8.3 Existing Retail and Commercial Centres

Penrith CBD

Strip retailing in Penrith CBD is predominantly located along High Street, extending to Henry Street in the north and Union Road in the south, comprising a total of approximately 50,300sqm of floorspace. Major tenants include The Warehouse (1,500sqm) and Retravisio (700sqm). In addition, there is also approximately 25,000sqm of commercial floorspace. It is noted that Spotlight, formerly located in Penrith CBD, has now relocated to the Harvey Norman Centre leaving a 5,500sqm vacancy.

Westfield Penrith

The recently expanded Westfield Penrith comprises 77,000sqm of retail floorspace, located on Henry Street, bounded by Jane Street to the north, Great Western Highway to the south and Mulgoa Road to the west. Major tenants include Myer (20,114sqm), Big W (8,738sqm), Target (7,097sqm), Woolworths (3,795sqm), Franklins (2,010sqm) and Best & Less (1,195sqm). There are also 311 specialty shops accounting for 31,228sqm of retail floorspace.

The centre also accommodates a medical centre, a Hoyts Cinema and commercial office tenants. In 2007, the centre achieved turnover of \$562.5m, equating to \$7,087/sqm⁴. This was around 10% above the median level of turnover for the 85 “Big Gun” shopping centres (centres over 45,000sqm lettable area) listed in the Shopping Centre News 2009. It is also one of the strongest performing centres in Western Sydney.

Based on discussions with Penrith City Council, it is understood Westfield may be examining further expansion.

Centro Nepean

Centro Nepean is located on the corner of Station and Woodriff Streets and comprises 20,400sqm of retail floorspace. The centre is anchored by Kmart (8,430sqm) and Coles (4,325sqm). Additional specialty shops

⁴ Shopping Centre News, Big Guns 2008

account for 7,642sqm of retail floorspace. The centre also accommodates a Black Stump restaurant. Centro Nepean achieved a turnover \$155.62m in 2007, equating to \$7,681/sqm⁵.

Penrith Centre

The Penrith Centre is located on the corner of High and Station Streets and comprises 7,800sqm of retail floorspace. Major tenants include Sam's Warehouse (2,001sqm) and Priceline Pharmacy (583sqm). 16 specialty shops provide 1,550sqm of retail floorspace. The Centre also accommodates a nightclub and hotel (3,206sqm).

Henry Lawson Centre

The Henry Lawson Centre is located at 61-79 Henry Street and comprises 6,300sqm of retail floorspace. It is anchored by The Good Guys (3,203sqm) and has 3 specialty shops that provide 3,136sqm of retail floorspace. It also accommodates an independent medical practice and 3 office tenancies. It is understood the centre was sold in mid 2008 for \$16.9m equivalent to \$1,971/sqm and a yield of 7.24%.

The Nepean Shopping Centre (Henry Street Mall)

The Nepean Shopping Centre is located on Henry Street and comprises approximately 2,200sqm of retail floorspace. The centre is anchored by a Franklins supermarket of 1,500sqm. There are also approximately 700sqm of retail specialties.

At Home Penrith (Homemaker Centre)

At Home Penrith is located on the corner of Wolseley Street and Mulgoa Road and comprises 27,400sqm of bulky goods retail floorspace. Major tenants include Bing Lee (1,522sqm), Everyday Living (1,006sqm), Spectrum Furniture (1,003sqm), Sleep City (1,001sqm) and Forty Winks (1,000sqm). There are also 31 specialty shops that provide 21,803sqm of retail floorspace.

Harvey Norman Centre – Jamisontown

The Harvey Norman Centre is located on Mulgoa Road and comprises approximately 34,000sqm of bulky goods retail floorspace. Major tenants include Bunnings (12,934sqm), Harvey Norman (11,617sqm), Domayne (6,656sqm) and Lincraft (2,025sqm). There are 3 specialties providing around 1,614sqm of floorspace and includes Super Cheap Auto.

Southlands Shopping Centre

The Southlands Shopping Centre is located on the corner of Maxwell and Evan Streets in South Penrith. It is understood the centre is currently under expansion and renovation. The existing Franklins supermarket will be replaced with a Woolworths. 25 specialty stores are also included.

⁵ Shopping Centre News, Big Guns 2008

8.4 Demand for Retail Floor Space

Household expenditure was sourced from:

- ABS Household Expenditure Survey 2003-04 which provides household expenditure by broad commodity type by household income quintile; and
- Marketinfo 2007 which is generated by combining and updating data from the Population Census and the ABS Household Expenditure Survey (HES) using “microsimulation modelling techniques”.

Marketinfo combines the data from the Census, HES and other sources to derive total HES by commodity type. This data, which was validated using taxation and national accounts figures, quantifies around 15% more expenditure than the ABS HES Survey.

The table below shows expenditure that the trade area (Penrith LGA, Blue Mountains LGA and Hawkesbury LGA) will generate. Expenditure was estimated for 2006 and forecast for 2011, 2016 and 2021 based on:

- 1.36% per annum household growth for Penrith LGA, 0.79% for Hawkesbury LGA, and 0.78% for Blue Mountains LGA;
- Expected growth in real expenditure per household of 1.0% per annum for all commodities⁶; and
- Marketinfo 2007 data (in terms of retail spend per capita) applied to 2006 ABS population data.

Table 15 - Trade Area Expenditure by Retail Store Type (\$2007)

Retail Store Type	Spend per person in 2006*	2006 (\$m)	2011 (\$m)	2016 (\$m)	2021 (\$m)
Supermarkets & Grocery Stores	3,292	1,009.6	1,120.7	1,244.2	1,381.7
Specialty Food Stores	1,292	396.2	439.7	488.2	542.0
Fast-Food Stores & Restaurants	1,884	577.9	641.5	712.3	791.0
Department Stores	971	297.7	330.5	366.9	407.5
Clothing Stores	793	243.2	270.0	299.8	333.0
Bulky Goods Stores	1,737	532.7	591.3	656.4	728.8
Other Personal & Household Goods Retailing	1,217	373.1	414.2	459.8	510.6
Selected Personal Services	394	120.8	134.0	148.8	165.2
Total	11,579	3,551.4	3,942.0	4,376.4	4,859.7

Sources: ABS Census 2006, Marketinfo 2007 and Hill PDA.

The above table indicates the trade area commands around \$4,104.8m of total expenditure on retail goods and personal services in 2011. Note Hill PDA's expenditure model does not take into account the recent downturn in the economy. However, Hill PDA believes this to be a short term condition, and therefore Hill PDA has only considered the long term trend.

Hill PDA estimated capture of expenditure (or turnover) available for Penrith CBD and Jamisontown by the application of capture rates to household expenditure. For the purpose of the analysis the following capture rates were applied:

⁶ Based on Retail Trends since 1991 – Source: ABS Monthly Turnover by Broad Industry. This is a conservative estimate as actual real growth has been a little higher at 1.3%.

Table 16 - Capture of Household Expenditure by Source (LGA %) to Penrith CBD and Jamisontown

Retail Store Type	Source of Expenditure (LGA)			Weighted Total
	Penrith	Blue Mountains	Hawkesbury	
Supermarkets & Grocery Stores	30%	2.5%	2.5%	17.4%
Specialty Food Stores	30%	2.5%	2.5%	17.3%
Fast-Food Stores & Restaurants	30%	2.5%	2.5%	17.4%
Department Stores	90%	50.0%	50.0%	71.7%
Clothing Stores	90%	50.0%	50.0%	71.9%
Bulky Goods Stores	90%	50.0%	50.0%	71.5%
Other Personal & Household Goods Retailing	50%	20.0%	20.0%	36.2%
Selected Personal Services	30%	2.5%	2.5%	18.4%
Weighted Average	50%	18.8%	18.8%	35.8%

These capture rates reflect the level of expenditure that Penrith CBD and Jamisontown should capture given the position and size of competing centres in the LGA and surrounding areas. The capture rates reflect the retail offer in the hierarchy. In broad terms, regional centres like Penrith capture around 35% of total expenditure. These centres capture the majority of department store and fashion shopping. District or town centres (such as Katoomba and Richmond which are usually anchored by a discount department store and two large supermarkets) capture around 20% to 25% of total expenditure. Village centres (usually anchored by a supermarket) capture around 20% to 25%, out-of-centre “bulky goods” areas capture 15% and the remaining 5% is captured by neighbourhood centres (corner stores or small group of small shops).

The above table shows for instance that Penrith CBD and Jamisontown could potentially capture 50% of department store expenditure from Blue Mountains and Hawkesbury LGA's given a lack of those store types in the regional area. This allows for 50% of expenditure generated by the secondary trade area in department stores to be captured locally (e.g. Big W store in Richmond and Kmart in Katoomba) or escape to higher order centres (e.g. Sydney CBD).

Furthermore it is assumed 2.5% of supermarket expenditure and 50% of bulky goods expenditure generated by Blue Mountains and Hawkesbury LGA's will be captured by Penrith CBD and Jamisontown. The supermarket spend mainly refers to secondary spending. That is, whilst residents outside Penrith visit Penrith CBD to shop for fashion and other discretionary items they will also undertake some food and grocery shopping there.

Total household expenditure from the trade area when multiplied by their respective capture rates generates the following turnover.

Table 17 - Potential Turnover Captured in Penrith CBD and Jamisontown (\$m2007)

Retail Store Type	2006	2011	2016	2021
Supermarkets & Grocery Stores	175.5	197.0	221.2	248.3
Specialty Food Stores	68.4	76.8	86.2	96.7
Fast-Food Stores & Restaurants	100.7	113.0	126.9	142.4
Department Stores	213.4	237.9	265.1	295.6
Clothing Stores	174.8	194.8	217.2	242.2
Bulky Goods Stores	380.8	424.3	472.8	527.1
Other Personal & Household Goods Retailing	135.0	150.7	168.3	188.0
Selected Personal Services	22.3	25.0	28.0	31.3
Total Retailing	\$1,271.0m	\$1,419.5m	\$1,585.7m	\$1,771.6m

Source: Hill PDA Estimate (refer to Appendix 1 for detailed tables)

The above table indicates Penrith CBD and Jamisontown have the potential to capture around \$1.4b of expenditure on retail goods and personal services in 2011. Of this, \$197m is in supermarket and grocery food stores, \$77m on specialty food stores and so on. Putting tourism and visitor expenditure aside, the above results indicate growth in expenditure of around \$30m per annum.

Dividing the above expenditure by average turnover benchmarks (metropolitan averages) can determine the current and forecast demand for retail floorspace in Penrith CBD and Jamisontown.

Table 18 - Retail Floorspace Demand in Penrith CBD and Jamisontown

Retail Store Type	Benchmark Turnover Rate (\$/sqm)	Floorspace Demand (sqm)			
		2006	2011	2016	2021
Supermarkets & Grocery Stores	10,000	17,554	19,704	22,117	24,827
Department Stores	3,500	60,984	67,962	75,751	84,448
Bulky Goods Stores	3,500	108,791	121,223	135,099	150,590
Specialty Stores (incl. personal services)	6,000	83,534	93,391	104,424	116,775
Total Retailing Demand		270,864	302,279	337,391	376,640
Undersupply of Floorspace		6,117	37,532	72,644	111,893
Growth in Demand			31,415	35,112	39,249

* Sources include ABS Retail Survey 1998-99 escalated to \$2006, JHD Retail Averages, Shopping Centre News and various consultancy studies.

The above table indicates demand for around 300,000sqm of retail floorspace in 2011. Of this, there is demand for 19,700sqm of supermarket floorspace, 121,000sqm of bulky goods floorspace and so on.

By 2011 there will be potential undersupply of around 38,000sqm of floorspace based on the above growth forecast and target capture rates. This will escalate to 73,000sqm undersupply in 2016 if existing supply remains constant. Growth in demand for floorspace equates to the requirement for around 5,000sqm of additional retail floorspace per annum by the trade area in Penrith CBD, Riverlink and Jamisontown area.

Apportioning some of that demand to Riverlink precinct can be done by demand modelling from residents, workers and tourists.

Based on expenditure modelling results, and given the everyday shopping needs of the new residential population on site, Hill PDA would anticipate demand for around 12,000sqm of retail floorspace for residents on site based on a population of 5,500 people (2,500 existing residents and 3,000 additional residents on the Panthers site) by 2.2sqm per person. Of this, it would be reasonable to assume that local shopping on site would account for around half (6,000sqm) of this floorspace, with the remaining being provided off site and in the local area (primarily Penrith CBD).

In addition, a workforce of around 3,000 people in the Riverlink precinct will demand a further 2,500sqm of retail space based on workers spending around 15% of their total household expenditure near their place of work.

Residents and workers on site will therefore demand approximately 8,500sqm of retail floorspace on site. The likely form of retail would be a supermarket of around 3,000sqm and specialty shops. The specialty stores should include at least one newsagency and one pharmacy. Other stores would include bakery, butcher, liquor, take-away foods and restaurants.

8,500sqm of retail space combined with demand generated from added tourism expenditure (3,000sqm⁷) would bring the total retail space to around 11,500sqm. A further say 1,000sqm of shop front space would be required for non-retail commercial uses such as banks, real estate agents, post office, medical services, etc.

Total shop front space that could be supported by additional residents, workers and tourists is therefore around 12,000 to 13,000sqm.

Note that the retail space is only meeting some demand generated by on-site residents, workers and visitors. "Higher order" discretionary or "comparative goods" spending including department store merchandise, fashion, bulky goods and the like will be directed to other centres – mostly to the Penrith CBD. Hence with 12,500sqm of retail space on the Panthers site there will still be positive impacts on the Penrith CBD.

Every year growth in Penrith's trade area will generate demand for a further 4,000 to 5,000sqm of additional retail space in the Penrith CBD. Some of this space could be accommodated in the northern end of the Riverlink precinct as part of the extension of the CBD to the river (refer to Section 10).

8.5 Demand for Commercial Floor Space

Demand for office space is dependent upon growth in employment numbers which is correlated to population growth and employment trends. There are several sources of data available in forecasting demand including Council's CBD Floor Space Forecasts prepared by Hill PDA in 2000 and Journey to Work forecasts.

Across the city there is demand for an additional 4,000 to 4,500sqm of floorspace every year. This is based on Tables 6 and 7 above combined with the following apportionment of jobs by industry type to commercial (office) space (business zones) and assigning 22sqm of space to each worker.

Table 19 - Apportionment of Forecast Jobs to the Commercial Centres

Industry	Apportionment
Construction	10%
Communications	20%
Finance, insurance	100%
Property and business services	100%
Public administration and defence	50%
Education	20%
Health and community services	50%
Cultural and recreational services	50%
Accommodation, restaurants, cafes, clubs	50%
Personal and other services	100%

7. Using the MacroPlan assumptions in the Panther's proposal, Hill PDA has calculated there to be around 163,586 occupied room nights per annum estimated at the Panthers site. Based on spend of \$167/night for business visitors and \$198/night for holiday makers this equates to around \$29.84m per annum spend by overnight visitation.

Assuming a 10% increase in day visitors to Penrith, averaging \$88/day spend, \$6.6m per annum total day visitor spend results. Combining day and overnight visitors, total increase in tourism spend in Penrith from the proposed development is around \$36.4m per annum.

The MacroPlan report assumes 44% of all tourism expenditure is spent in retail which is consistent with Tourism Australia data. Based on Hill PDA's calculations, this results in demand for around 3,000sqm of associated retail floorspace based on a target turnover of \$5,000 to \$5,500/sqm.

In short, if hotel and convention space is built on the Panthers site, associated retail of around 3,000sqm is supported. This translates to around 25 to 30 specialty shops mostly in the form of fast foods, restaurants, clothing, souvenirs and gifts.

In addition to the above demand is generated by growth in the broader CBD trade area which includes Blue Mountains and Hawkesbury LGAs. This increases the total demand to around 7,000sqm to 8,000sqm of office floor space per annum to be distributed in various localities throughout the three LGAs. The Penrith CBD would be expected to take up as much as 30% to 35% of this space. This translates to 2,100sqm to 2,400sqm per annum in the CBD which is consistent with the earlier forecast by Hill PDA in 2000.

Riverlink has potential to capture some of this demand. The Panther's proposal includes commercial suites and a business park with a combined floor space of around 30,000sqm. The market could absorb this space over a period of 10 to 15 years. It's further possible that additional space could be catalysed given the current shortfall of jobs to working residents in the LGA (refer to Section 4.6 above). Likewise population growth can be stimulated by local job opportunities.

9. REGIONAL ATTRACTION ANALYSIS

Hill PDA examined other parklands and attractions within Sydney and around Penrith. This task was undertaken in order to ascertain potential competition to Riverlink, as well as to research potential land uses that may have a synergy with parklands or be attracted to a site like Riverlink.

9.1 Comparable Sydney Attractions

Centennial Parklands

Centennial Parklands comprises three parks: Moore Park, Queens Park and Centennial Park. The park is a playground for walkers, joggers, roller-bladers and cyclists. It is also one of the few inner-city parks in the world to offer horse-riding facilities. It includes 10 ponds covering 26 hectares which are linked to the Botany Wetlands System. The Park also has a café and restaurant, a marquee site, and outdoor cinema site, and offers facilities for organised sporting activities.

The Moore Park precinct is a unique premier leisure destination providing important facilities for the sporting and entertainment culture of Sydney and New South Wales. Facilities operating in Moore Park include:

- Combined restaurant/ function area/ café to seat 200-250 people;
- The Entertainment Quarter – formerly Fox Entertainment Precinct (on lease from the Trust);
- Royal Hall of Industries and Hordern Pavilion (on lease from the Trust);
- Fox Studios (on lease from the Trust);
- Centennial Parklands Equestrian Centre (managed by the Trust); and
- Adjoining Aussie Stadium and the Sydney Cricket Ground.

Centennial Parklands sporting facilities include the ES Marks Athletics Field, an 18-hole golf course and driving range, an equestrian centre, tennis courts, netball courts and sporting fields. Centennial Parklands has a total asset base of more than \$650 million and attracts over five million visits each year (Centennial Parklands precinct – including the adjacent Moore Park venues – attracts more than 13 million visits). With 6% of visitors being domestic or international tourists, Centennial Parklands helps generate tourism income for the State economy.

Discussions with the operators of the Parklands revealed activities they viewed as successful in the parklands included the golf driving range, tennis courts, 'Entertainment Quarter', Hordern Pavilion, equestrian centre, events, weddings and festivals.

Table 20 - Successful Uses within Centennial Parklands

Activity	Analysis
Golf Driving Range	The driving range is a good revenue earner, whilst the associated golf course is very capital intensive. The Trust has full control of the golf course and driving range. It owns and operates the facility in conjunction with the Golf Club.
Tennis Courts	The tennis courts are not high revenue earners; however they do provide reliable returns.

Activity	Analysis
	The revenue from the tennis courts are improving, especially being an increasingly popular "all-family" activity. Tennis coaching provides good returns.
Entertainment Quarter ('EQ')	The EQ is owned and built by the Trust Colonial First State (CFS) via a lease agreement operates the EQ. The EQ is vulnerable to market forces. The village markets held on the village green within the EQ ensure vibrancy and a critical mass of people in the area. They also provide a synergy of uses and critical mass of people who will use other facilities. A 2000 space, multi story car park works successfully in the EQ. There needs to be a balance between the retail and commercial uses. These hard areas can also provide a buffer between noisy parkland uses (e.g. concerts) and residential areas.
Hordern Pavilion	The Pavilion is on a long lease (20 years plus remaining) and provides a good income stream.
Equestrian Centre ('EC')	The EC and its associated stables are owned and operated by the trust. The EC only produces a marginal income and is high risk. The EC is only one of three to be located in main cities in the world. It is also uncommon for EC's in the city to have stables, which are available at Centennial Parklands.
Temporary & 'one off' events	Large temporary events (concerts, festivals, cultural events etc) are very successful. Event spaces need a synergy with hard areas like retail space, so revenue from one leads to revenue from the other and vice versa
Weddings	Weddings generate revenue especially if the reception is held in the park as well.
Food Festivals & Cultural Events	Festivals and cultural events raise awareness of the park and other facilities and uses within the area.

Furthermore, activities viewed as unsuccessful included the golf course and sports fields.

Table 21 - Unsuccessful Uses within Centennial Parklands

Activity	Analysis
Golf Course	The Golf Course by itself has high capital and maintenance costs.
Sports Fields	Sports fields don't necessarily work financially as there is generally no revenue, and no positive return. They can be capital intensive.

Future developments for the Parklands include:

- ES Marks field will soon be going to market and a tender process for the possible integration of the field into a full sporting complex forming part of the Moore Park South Masterplan;
- Centennial Parklands are investigating the possibility of integrating the golf course and driving range with a day spa/wellness centre, with gym facilities etc; and
- Event capacity infrastructure is to be expanded and developed. It helps to have infrastructure capable of aiding/facilitating events (eg. direct sewerage access for port-a-loos, lighting, generators and full phase power). This therefore limits the range of temporary infrastructure the event organisers need to bring themselves. The event can hire this infrastructure off the park directly, increasing the revenue capacity from events.

Centennial Park is also currently considering a proposal to create an all-weather Education Centre for school and community-based environmental education programs that could be a consideration for the Riverlink Precinct. The Centennial Park and Moore Park Trust has a long term commitment to environmental education - through servicing the needs of regional schools and community groups led by qualified and experienced

Education and Interpretation Rangers. The Trust currently undertakes environmental education activities and school holiday programs which are designed to promote the Parklands as an education resource focusing on the understanding and appreciation of the natural environment and cultural heritage of the Parklands. In 2007-08, over 13,000 participants were involved in these programs. All programs are held outdoors and, as a result, are dependent on good weather conditions for their delivery.

This type of education facility could be possible for a landmark building in Riverlink. The education element and its synergies with other land uses within the Precinct, Penrith CBD and the Blue Mountains (e.g. tourism, retail, universities, schools, active/passive recreation space, business) is advantageous.

Centennial Parklands has successfully mixed open space with more commercially viable land uses. As a result, the commercial land uses can fund and maintain other non-income producing assets. To be considered for Riverlink is the trade off between those uses which are successful for community and awareness reasons (e.g. festivals, one off events) and those uses that are successful for commercial reasons (e.g. Golf driving range, weddings, Hordern Pavilion).

Western Sydney Parklands

Western Sydney Parklands covers 5,500ha and stretches 27km from Quakers Hill in the north to Leppington in the south. Western Sydney Parklands is 25 times the size of Centennial Park.

The Parklands is home to a range of existing facilities including;

- High quality sports facilities developed for the 2000 Olympic Games for equestrian, shooting, baseball, softball and mountain biking competitions;
- Nurragingy Reserve;
- Eastern Creek Raceway and Dragway;
- Prospect Reservoir;
- Fairfield City Farm; and
- The Pimelea and Plough & Harrow picnic areas.

The development of the Western Sydney Parklands will be partly funded from development of nearby land. The adjoining land will be developed to include 50ha of residential land and approximately 40ha of employment land. This land has the opportunity to relate to, and to be developed in conjunction with, the Parklands.

Western Sydney Parklands is made up of nine precincts, each with a distinctive landscape character and a range of proposed land use options.

The first stage of the Parklands, identified as the Bungarabee Precinct (Precinct 2), will feature the development of a 490ha site along Eastern Creek at Doonside. The precinct will form the main community recreation hub for both active and passive recreation in the northern part of the Parklands. Bushland would be restored through the broad floodplain and current rural landscapes will be retained on the valley slopes to allow open areas for intensive community use including picnic and play areas, walking and cycling trails and active sports fields.

The Department of Planning is developing an Access Plan to facilitate pedestrian and cycle access along the entire length of the Parklands corridor.

In addition, Landcom (the developer) will be ensuring that development along the edges of the Parklands is sensitive to the needs of the Parklands, and allows for high quality interaction between new residents, workers and Parklands users. In early 2006, Landcom commissioned a master plan for the Doonside residential area and the West Huntingwood employment site. It is expected that work on both sites will commence in the first half of 2007.

The aim of the Parklands is successfully integrate parklands and open space with higher order land uses like residential, industrial and commercial. The interface between these land uses, so as to integrate them, rather than buffer them from one another (e.g. no hard walls) should be considered by Riverlink. For example: proposed business parks in the Parklands are encouraged to consider including individual buildings surrounded by public open space, with water features, some convenience retail, community events, bike paths and walkways.

Sydney Olympic Park

Sydney Olympic Parklands covers 425ha extending to Homebush Bay and the Parramatta River. 6.5m people visit Sydney Olympic Park each year for the wide range of leisure, entertainment, cultural, sporting and educational activities.

Nearly 1,800 events are held at the Park each year including the annual Sydney Royal Easter Show at Sydney Showground, Sydney Festival events, and the successful Night Noodle Markets. The Park also plays host to over 40 different sports each year, both at professional and amateur levels, such as NRL and ARL games at Telstra Stadium, the Medibank International at the Tennis Centre, the National Australian Swimming Championships at the Aquatic Centre and the National Athletics Championships at the Athletic Centre.

Other uses include hotels (5 star and budget), take-away food stores, ground floor retail outlets, commercial offices, conference facilities, a train station, and BMX track.

Sydney Olympic Park includes:

- Blaxland Common - A 20ha open turfed recreation area situated on the Parramatta River frontage. Blaxland Common is suitable for a variety of functions and events including informal recreation, large community and corporate events, individual and team sports.
- Woo-la-ra - The principal gateway to the parklands from the Sydney Olympic Park Ferry Wharf and is 22ha in size. Includes a lookout with paths leading to the summit.
- Haslams Creek Flats - A parklands area which adjoins the suburb of Newington and features a lookout, access to the walking/cycling path network. These pathways, which can be accessed by wheelchair, bicycle and foot, provide 6.3km of car-free paths and offer a unique historical and ecological experience, taking visitors through the Newington Armoury and adjoining wetlands.
- Kronos Hill - Covering an area of approximately 22ha comprising water features and control ponds.

- Wilson Park - Fronting Parramatta River the park is situated between Silverwater Road and Holker Street at Sydney Olympic Park. Wilson Park is managed by Auburn Council and provides playing fields for local sporting competitions and recreation space for the general public.

The Sydney Olympic Park Authority is responsible for managing and developing the 640ha that comprise the Park and maintain it as a lasting legacy for the people of New South Wales.

The Authority has a 'place management' division that is charged with the responsibility for day-to-day management of the public places. The concept of Place Management was introduced to Sydney Olympic Park in September 2003 to facilitate a seamless organisational approach to the care, control and management of the public arenas at the Park.

All of the venues at the Park are managed by private operators either in their own right or on behalf of the Authority. The Authority's place management function does not generally undertake works or services or deliver programs or services within venues, however the strong physical connection between the venues and the public domain is reflected in the working relationships between venue management and activities and those of the place management division.

The Sydney Olympic Park Authority has also established the Parklands Foundation to assist with the enhancement and appreciation of the Parklands. The Parklands Foundation is committed to enhancing the Parklands at Sydney Olympic Park for the community to treasure as a place of enjoyment, learning, discovery, recreation and tranquillity. The Foundation has been established by the Authority to attract financial resources and support educational, environmental, cultural, scientific and recreational activities within the Parklands. These activities include environmental learning experiences; research projects; nature tours; interpretive attractions; events and exhibitions.

By generating corporate contributions and individual donations, the Parklands Foundation will add value to the future of Sydney Olympic Park through initiatives that enhance the Parklands and the experience of visitors - initiatives that would not otherwise be possible.

The Park also includes a commercial office precinct which has seen a surge of development in recent years. This has included the Commonwealth Banks' relocation from Sydney CBD. The office precinct has long been located in the Park, however originally the buildings had a higher warehouse component. Over time, many of these buildings been redeveloped into pure commercial office. The opening of the train station at the Park has heavily influenced the popularity of the site for commercial office. Previously, public transport was limited which was a detractor to potential workers and companies locating on site.

The Draft Sydney Olympic Park Master Plan 2030 is the blueprint for the future development of Sydney Olympic Park. By 2030, Sydney Olympic Park is expected to accommodate 1.4m sqm of new building space and a further 28,000 jobs.

Bicentennial Parklands

Bicentennial Park was created during the 1980s, in time to celebrate Australia's Bicentenary in 1988. The 100ha natural heritage site provides an important wetland ecosystem with 40ha of parklands. Bicentennial Park

is part of Sydney Olympic Park and offers recreation areas, nature-based tours, environmental education and outdoor event experiences.

The Park offers free entry, BBQs, picnic areas, playgrounds, pathways and cycle ways, parking, access to the wetlands, salt marsh and bird hides. Additional features include Lake Belvedere, Peace Monument, Sundial, 'Cyrus the Great' statue, the Silent Hearts Memorial Garden and water features.

An additional feature of Bicentennial Park is the Treillage - a square, 3 storey viewing tower constructed from trellis. From the top of the Treillage there are views of Bicentennial Park, Sydney Olympic Park and the Sydney city skyline.

Bicentennial Park has numerous open spaces and shade structures available for hire. These provide for a variety of functions and events; including social and family picnics and barbeques, community events, wedding ceremonies, school picnics, corporate events and other special events. Site hire fees do apply.

Theme Parks

There are no major theme parks left in Sydney. A previous example was Australia's Wonderland. Some smaller theme parks have developed in regional locations like Jamberoo Recreation Park in Kiama LGA. It is understood there has been interest in such a development for Riverlink (e.g. water theme park, jumping castle theme park) and Penrith Lakes.

Regional and interstate examples include:

- **Whitewater World, Gold Coast** - Whitewater World is a new water park located on the Gold Coast, Queensland. It opened in December 2006 at an initial development cost of \$60m. It is located directly next to the successful Dreamworld theme park and is owned and operated by Macquarie Leisure Trust. Located on the 105ha Dreamworld site, it was built as an alternative to the larger nearby Warner Village Theme Parks' Wet 'n Wild Water World. In the half year to December 2007, the Park had 245,867 attendees, equating to \$8.44m spend. In the half year to December 2008, the Park had 291,096 attendees, an increase of 18.4%. However, this only equated to a 0.2% increase in revenue to \$8.46m due to the per capita spend falling to \$29.06 because of pricing changes.
- **Jamberoo Action Park** - Jamberoo Action Park is a water park and small theme park located in Jamberoo, around 115km south of Sydney. The Park consists of water rides/slides, pools, mini golf, tobogganing and go-carts. There are also dining and barbeque facilities. The Park commenced operations in 1980 and has had numerous renovations and additions since then. The Park operates from September – April, with around 365,000 attendances per season. The Park is located on a 40ha site; however, not all of it is utilised.
- **Manly Waterworks** - Manly Waterworks is a relatively small water park. It was operated jointly with the now defunct Mt Druitt Waterworks. The Park is situated on a small parcel of land and consists of three giant waterslides and viewing areas. The Park operates from September to April. It is only open daily during school holidays, and on weekends at other times. Park has a capacity of 150-200 patrons, with around 200 patrons attending per weekend (depending on the weather).

- Luna Park, Sydney - Luna Park is a historical amusement park located at Milsons Point in Sydney. The heritage listed park was first opened in 1935, although its history includes multiple closures. It is now the premier amusement park in Sydney after the collapse of Sega World and Australia's Wonderland. Entry to Luna Park is free, with payment compulsory for the various rides and games. Luna Park also contains 10 venues that are suitable small and large function areas for between 60 and 2,000 guests. The Park also includes the 'Big Top', which is a licensed two-level music auditorium with a capacity of just under 3,000 people.

Sydney Growers Market, Flemington

The Sydney Growers Market is Australia's largest grower's market, with over 400 stands selling fresh fruit, vegetables and herbs. The Markets comprises of approximately 120 Wholesalers, 394 Produce Growers, 172 Flower Grower-Sellers and over 160 supporting businesses.

The markets are located at Flemington and are open Monday through to Thursday 6am to 10.30am and Friday 6am to 9.30am. The majority of trading occurs before 9am, after which Paddy's Markets commences operation.

Market sales largely occur via impermanent "stalls" (often boxes on the ground) and the standard of retailing to the general public is poor when compared to what is offered elsewhere in Australia (e.g. Adelaide Markets, Queen Vic Markets Melbourne, Fish Markets Sydney) and in Europe.

Queen Victoria Markets, Melbourne

Queen Victoria Market is Victoria's premier open-air market and has been in operation for 130 years. The Market is best known for fresh produce. Almost 50% of the Market area is dedicated to the sale of fresh produce, including fresh fruits and vegetables, meat, chicken, seafood and delicatessen products sold from quality shops and stalls. The remainder of the Market is used for a variety and specialty goods, with Sundays being the most popular day for this category. The Market is divided into a number of precincts and is open Tuesday to Sunday.

Direct Factory Outlet (DFO), Homebush

The DFO is an indoor centre of 76 brand outlet stores with a total lettable area of approximately 14,500sqm built on a 2.8ha site in Homebush. The DFO sells discounted and out of season merchandise of which about 75% is apparel. As a result, the DFO has a wide and thin trade area.

9.2 Existing Supply and Competitor Analysis

Hill PDA has researched the potential for various regional attractions and other land uses that have entertainment, recreation and sporting functions. Hill PDA has undertaken a competitor analysis of these potential attractions in order to determine supply and demand for such land uses.

Table 22 - Regional Attraction Competitor and Supply Analysis

Uses	Regional Competitors	Weakness	Strengths
Walking tours/bike trails	Blue Mountains National Park	-	Adds potential to create a critical mass of people, distributed along entire parkland. Not capital intensive.

Uses	Regional Competitors	Weakness	Strengths
Wildlife sanctuary	Featherdale Wildlife Park, Doonside	Capital intensive to set up and ongoing operational costs. Tends to be a long term use rather than short term use.	Complements other revenue generating uses and adds to attract a critical mass of people.
Water sports	Penrith White-water Rafting - Cranebrook. Nepean Belle Paddleboat. Penrith Panthers - Panthers World of Entertainment.	-	Ideal in terms of the environmental setting. All revenue generating uses.
Camping grounds & associated facilities	Blue Mountains National Park. YMCA Camp Yarramundi & Deeimba - Yarramundi. Gross Vale Conference Centre & Adventure Campsite – Gross Vale. Camp Fletcher – Hazelbrook. Blue Gum Lodge - Springwood. Katoomba Christian Convention Centre - Katoomba.	Surrounding uses would be limited. Fire hazard land possible. Flooding issues.	Provides critical mass of people. Relatively 'cheap' use of the parkland for the participants and is therefore attractive. A camping ground which is scenic and provides the sense of being in the 'bush' whilst being relatively close to major urban centres. Not capital intensive.
Festivals, performances and events	Granny Smith Festival. Penrith City Festival – Penrith CBD. Annual Festival of Carols by Candlelight - Tench Reserve, Penrith. EVAN Theatre. Joan Sutherland Performing Arts Centre. Panthers. Glenmore Park Community Fair – Kingswood. Mamre Colonial Spring Craft and Art Fair - St Marys. Panthers Nepean Triathlon – Emu Plains.	Activity can be weather dependent. Penrith is still considered "far" from Sydney – there has to be some kind of impetus for those not located in Penrith to travel there for an event. Public transport to an event – better linkages needed between Penrith train station and precinct.	Revenue generating. Creates awareness of the precinct and other activities the precinct provides. Festivals and events can create the first impression leading to repeat visitors. If event infrastructure is installed at the parklands, increased revenue can be obtained through the hiring of these facilities and infrastructure by event coordinators.
Outdoor big screen to view major events such as sporting events or movies.	"Overflow" outdoor film area, Sydney Olympic Park	Not revenue generating	Socially a great idea – brings people together and creates a community atmosphere. Free access ensures wide social mix.
Weekend markets	Penrith Markets - Cnr Station St and Mulgoa Rd, Penrith. Panthers Trash & Treasure - Panthers Leagues Club, Penrith.	Activity can be weather dependent. May be more appropriate during warmer months of the year.	Revenue generating. Minimal capital cost to set up. Creates a critical mass of people which may use other facilities in the park. Therefore contributing to turnover of other uses (e.g. retail).
Permanent Fresh Food Markets	Penrith Growers Market (outside Council), Flemington Markets.	Permanent facility which is unlikely to be used for another use. Its success might take a while to build.	Creates critical mass of people in the precinct. Good synergies, although different offer, with the CBD and other uses in the Precinct. Promotes healthy city image for Penrith. Unique in Sydney/NSW. Draws on Penrith's rural image and local produce.
Museums and galleries	Penrith Regional Gallery & The Lewers Bequest – Emu Plains. Museum of Fire - Penrith. Arms of Australia Inn Historic Museum - Emu Plains. The Purse Museum - Katoomba. Bandamora Art Gallery - Katoomba. Commercial & Art - Katoomba. Braemar Gallery - Richmond.	Not overly attractive in economic terms	Varies exceedingly. Location to be marked at this stage.
Restaurants/cafes and kiosks with al fresco dining	Panthers World of Entertainment – Penrith CBD. Parramatta, Cabramatta, Leura, Katoomba, Glenbrook, Windsor, Richmond, Newtown.	Capital intensive to set up or a long lease required to offset capital required. May compete with town centre – needs to be clustered with town centre. Many regional competitors offering similar combined	Complements other uses and is revenue generating.

Uses	Regional Competitors	Weakness	Strengths
		entertainment and eating experiences especially Panthers.	
Convention centre	Edmund Rice Conference Centre. Mulgoa Rd, Mulgoa. Penrith Showground Function Centre. UWS Conference and Venue Management. Penrith Panthers - Panthers World of Entertainment.	Sometimes struggle by themselves. However if attached to accommodation it may be more financially attractive.	Complements accommodation use and attracts people
Motel/Hotel	Penrith Valley Inn - Memorial Avenue, Penrith. Chifley at Penrith Panthers. Quality Inn – Mulgoa Rd, Penrith. Log Cabin - Memorial Ave Penrith. Kerr Cottage - Lethbridge St Penrith. Jamison Hotel Motel - Smith St Penrith. Peachtree Inn - Peachtree Rd Penrith. Penrith Hotel/Motel - High St Penrith. Quality Inn Penrith - Cnr Mulgoa & Blaikie Rd Penrith.	Existing competition from Panthers and offer in Penrith City Centre and surrounds.	Revenue generating. Complements other uses, and can feed off participants of other uses in the precinct
Eco Tourism resort	Penrith Panthers- Holiday INN. Nepean Shores Riverside Resort & Conference Centre. Log Cabins – Memorial Ave Penrith. Penrith Valley Inn - Memorial Ave, Penrith.	Finding an experienced operator may prove difficult.	Complements wellness centre and wildlife park. Revenue generating.
Wellness Centre & Day Spa	Ella Rouge – Specialising In Day Spa Packages, High St Penrith. Hopewood Health Retreat - Wallacia. Oxygen mind&bodyfitness - The Trade Centre, Penrith	Capital intensive to set up or a long lease required to offset capital required.	A wellness centre would use the parklands as a setting to assist physical and mental recuperation. Revenue generating. Could utilise existing and other facilities within the parkland.
Swimming Pool/Floating Baths	Eva Bory Swimming School – Emu Plains. Inswim Aquatic Centre – Penrith. Nepean Swimming Club. Penrith Swimming Club Inc. Penrith RSL Youth Amateur Swimming Club – Cambridge Park. Penrith Swimming Centre – Penrith. Ripples - St Marys Leisure Centre – St Marys.	Capital intensive to set up and maintain	May be an appropriate use for secondary water quality lakes. Adds to attract a critical mass of people.
Recreation centre/facility - indoor & outdoor	Ripples Leisure Centre - St Marys. Penrith Indoor Sports & Recreation - Penrith. The Climbing Centre - Penrith. Woodriff Gardens Tennis Complex - Penrith. Penrith District Netball Associate - Penrith. Hawkesbury Sports Council Inc. - Richmond. Nepean Motor Sports Club Pty Ltd - Castlereagh. Penrith Touch Association – St Marys. Panthers World of Entertainment- The Climbing Centre – Penrith.	Sports fields are not revenue generating. Flood issues may impact on sporting fields (i.e.: sinking).	Recreation and sports centre is revenue generating but not viable as business venture. Attracts people to the area who can use other facilities (e.g. retail).
Golf course/ Mini Golf course	Penrith Panthers – 54 hole mini golf/Golf Driving Range. Glenmore Heritage Valley Golf Course – Mulgoa. Leonary Golf Club – Leonay. Penrith Golf and Recreation Club – Penrith. Colonial Golf Club – Werrington. Dunheaved Golf Club – Dunheaved. Penrith Golf Club - Northern Road, Penrith. Twin Creeks Golf Club – Peppers Twin Creeks Resort, Luddenham.	Not overly revenue generating. High operating costs.	A great attractor to the remainder of the precinct. Could form synergies with other more revenue generating uses e.g. driving range, golf lessons etc.

Uses	Regional Competitors	Weakness	Strengths
	Jamison Golf Resort (Driving range & golf Academy) – Penrith. Llandilio Golf Driving Range (mini golf & driving range) – Penrith. Aqua Golf (hit target & win prizes) - Penrith.		
Sports Stadium	Penrith Panthers – Penrith, includes: Dominiques, Lakeside Lounge, Starlights, TC's Sports Bar, Grey Gums Hotel, Pinoneer Tavern. Parramatta Stadium. ANZ Stadium Homebush.	Competition with existing surrounding developments. Very capital intensive. High operating costs. Needs to attract a professional sporting team which helps with revenue, prolonged use and popularity of the use.	Could attract a professional sporting team for training, games etc.
Amusement/ Theme Park	Penrith Panthers, Luna Park, Jamberoo Recreational Park, Gold Coast Theme Parks	Competition with existing surrounding developments that are entertainment based i.e.: Penrith panthers	Revenue generating in the long run once established.

Source: Hill PDA Research 2009

10. PREFERRED LAND USE PLAN

10.1 Land Use Principals and Considerations

The Riverlink Precinct will be a vital addition to the array of economic assets in Sydney and the Greater Metropolitan Region. It is this role as a known place in the environment, as an employment hub, and as a high quality setting for recreation uses, that it can make its greatest contribution to the economic development of Penrith. Of course there are a range of other important roles the site can play as a residential, leisure and tourist destination and in adding to a critical mass of activity in the creation of an effective community on the fringe of Penrith CBD.

The services and retailing activity in Penrith CBD provides major employment opportunities for residents. The critical mass of activities and services in the CBD generates its own momentum and will continue to attract additional economic activity. This momentum should be encouraged and policies and strategies to preserve the primacy of the CBD should be supported.

The Riverlink Precinct can maximise its economic development impact and employment contribution, given its local and regional context by:

- Recognising and complementing Penrith CBD as the prime commercial and retail hub, whilst supporting Penrith as a Regional City;
- Linking into and complementing existing economic activity, business and employment at the site, and phasing in new uses as and when they become feasible and are in demand;
- Adding to population diversity and the pool of skilled and educated labour by offering employment within the vicinity of high quality residential environments;
- Encouraging an appropriate array of economic activities whilst recognising the need for a flexible approach to the location of economic activity across the site;
- Integrating employment uses and residential development, and dedicating part of the site for water and recreation activity as needed; and
- Maximising the unique attributes offered by the Precinct, being the river, the Blue Mountains backdrop, views and its proximity to a regional city centre.

Hill PDA developed the following land use principles in recommending land uses for the Riverlink Precinct:

- Land uses should not just be a response to 'highest and best use';
- Focus not on quantum of development but quality of development;
- Landmarks/focal points should be considered;
- Reconnect the River to the City – river edge and river-walk;
- The Precinct should be as public as possible;
- Co-location and synergies of land uses, no isolated objects or functions; and
- Legibility of city elements: market place, political/civic, cultural, educational, residential, health.

10.2 Riverlink Precinct Constraints and Opportunities

Based on Hill PDA's site investigation of the Riverlink Precinct and surrounding lands, the following issues, opportunities and constraints will influence recommended land uses:

- There is no public green space near the CBD where the community can gather apart from urban locations (e.g. Westfield Shopping Centre, outside Council, proposed City Square);
- The CBD should be extended to the River;
- Maximise activities in the northern portion of the precinct with a CBD and river connection;
- A landmark or iconic building should be considered in the Riverlink precinct that can be seen from all locations in the precinct and possibly beyond including the M4 motorway;
- Link regional attractions;
- Need to ensure Penrith Panthers does not turn its back on the CBD;
- Link uses in the Riverlink Precinct with Panthers, don't compete with uses in Panthers, and do not duplicate Panthers uses;
- Define the hierarchy of streets – main avenues, gateways, approaches, residential roads;
- Reinforce main avenues and street planting;
- Need night time activation of land uses;
- Opportunity to facilitate employment growth within an established urban area;
- Conflicts between land uses may need resolving (e.g. entertainment and residential);
- Consider how to deal with disruptions to river front and river linkages from residential and other private land uses;
- A cohesive and comprehensive layout of land uses in the Precinct is required;
- A sense of human scale and openness should be achieved; and
- Public facilities need to be accessible and affordable.

Furthermore flooding is a major constraint to development in the Riverlink Precinct. Hill PDA understands Council is undertaking various flood studies which may result in recommendations for land uses for flood liable lands. However, given the time constraints for the completion of this report, Hill PDA have listed land uses preferable for the precinct given the objectives and vision of the Riverlink Precinct Plan and to inform zoning and potential DCP controls. It is acknowledged that some of the recommended uses may not be appropriate given flooding constraints; however this can be determined at a later date.

The current Penrith Local Environmental Plan 1998 (Urban Land) considerably limits the range of permissible uses. The relevant clause from the LEP⁸, which controls the nature of any uses permitted on flood liable land, is provided below.

⁸ Source: Penrith Local Environmental Plan 1998 (Urban Land), Penrith City Council Page 41 of 66 Gazetted 8 January 1999. LEP 1998 Version 1.16.

32. Flood Liable Land:

- (1) The council must not consent to the carrying out of any development on or adjacent to flood liable land unless the provisions of any council policy for the development of flood liable land have been taken into consideration.
- (2) The council must not consent to an application to carry out any development (other than flood mitigation works or drains) which in its opinion will significantly:
 - (a) adversely affect potential flood behaviour, including the flood peak at any point upstream or downstream of the proposed development or the flow of floodwater on adjoining lands; or
 - (b) increase the potential flood hazard or flood damage to property; or
 - (c) cause erosion, siltation or destruction of riverbank vegetation in the locality; or
 - (d) affect the water table on any adjoining land; or
 - (e) affect riverbank stability; or
 - (f) affect the safety of the proposed development in time of flood; or
 - (g) restrict the capacity of the floodway; or
 - (h) increase the need for the council, the State Emergency Service or any other Government agency to provide emergency equipment, personnel, welfare facilities or other resources associated with an evacuation resulting from flooding; or
 - (i) increase the risk to life and personal safety of emergency services and rescue personnel; or
 - (j) redistribute flows across the floodplain.
- (3) In considering any application for consent the council shall have regard to the need for safe access to the site of the proposed development should it become flooded.

Hill PDA has been advised by Council that the draft flooding clauses for the new city-wide LEP will be similar to the existing clause in that it will require that new development not adversely affect flood behaviour and:

- Not increased flood affectation on other properties;
- Not affect flow distributions and velocities;
- Not affect safe occupation of land affected by the plan;
- Not cause erosion;
- Not result in unsustainable social and economic costs to the community as a consequence of flooding;
- Not be incompatible with the flow conveyance function of the floodway;
- Not increase flood hazard in the floodway; and
- The development would have to have the structural integrity to withstand the forces imposed by floodwater, including effects of lateral forces and buoyancy in a 1 in 200 year event.

10.3 Recommended Land Uses for Riverlink Precinct

The range of activities at the Riverlink Precinct, and the assets of the site themselves, may provide opportunities for the development of higher order service and commercial functions in the longer term. Special commercial and business development opportunities with waterside settings may be created.

The provision of up-market housing as part of the site (along Nepean River) enhances the chance of attracting professionals and 'knowledge' workers who will create a higher demand for business services. This will flow in to providing additional commercial development prospects.

However, with significant development and investment in other planned urban precincts (e.g. WELL precinct) it's envisaged that any take up of commercial floorspace at the Riverlink Precinct is very long term. As such, staging is going to be of particular importance, as will be the timing of major infrastructure works.

Access and public transport will be integral to any successful development in the Riverlink Precinct. Whilst planning dictates that Penrith City Centre forms the CBD precinct and should remain the key retail and commercial nodes, the scope for broad scale commercial development (e.g. business park) at the Riverlink Precinct should be considered.

Based on the research and analysis within this report, Hill PDA recommends land uses for the Riverlink Precinct. The following schedule recommends gross floor areas for viable development. Assumptions made in compiling this schedule of land uses include:

- The schedule indicates desirable or required land area and target gross floor areas;
- The schedule also includes the Panthers/ING proposal. Note, components of Panthers/ING proposal may be reduced – particularly retail areas given the potential City Centre related implications with this component. Residential development on Panthers Stage 3 is prohibited by Council due to flood evacuation issues.
- It is unknown if the water themed park can be developed on flood liable land; and
- Areas (hectares) of flood liable and flood free land (other than Panthers site) have not been considered in developing the list of land uses.

Table 23 - Riverlink Precinct Preferred Land Use Plan

Precinct Land Uses	GFA Existing	GFA Proposed
North*		
Sports Stadium		2,000
Indoor / Outdoor Sports Centre		5,000
Integrated Visitor Centre / museum / gallery		2,000
Sports Academy / Management School		4,000
Art / Cultural / Business Incubator		3,000
General Retail ground floor		5,000
Fresh Food Markets		4,000
Private High School		10,000
TOTAL		35,000
Penrith Panthers Stages 1 & 2		
Club	27,200	27,200
Conferences / Conventions	21,000	48,200
Aquatic health wellness centre		4,000
Hotel	11,500	41,700
Serviced Apartments		9,000
Cinemas & bowling		8,500
General Retail		9,000
Restaurants	3,050	3,500
Commercial Suites		6,000
Business Park		25,000
Multi-use Arena		30,000
Seniors Living Residential		50,000
Residential Medium Density		54,000
Residential High Density		30,000
TOTAL	62,750	346,100
Panthers Stage 3		
Restaurants, Hotel/Tavern, Functions, Conference Facilities and River Rec. Uses		15,000
TOTAL		15,000
Southwest		
Restaurants		1,200
Tavern		1,500
Functions / receptions		1,500
River recreational uses		1,500
TOTAL		5,700
Southeast		
Bulky Goods		15,000
TOTAL		15,000
Flood Liable Land**		
Water Theme Park		20,000
Golf Course (18 Holes)		1,000
Camping Grounds		
Eco tourism resort		7,500
Market Gardens		
City Garden		
TOTAL		28,500
TOTAL	62,750	445,300

* Components of these uses could be constructed on flood liable land such as the playing grounds for the school.

** Subject to flood compatibility

Whilst the amount of developable land in the Riverlink Precinct is uncertain, Hill PDA has suggested the following FSR's apply to the Precinct:

- North (mixed use) FSR 0.8:1
- Panthers site FSR 0.8:1
- Bulky goods FSR 0.5:1
- South West (Nepean Riverfront) FSR 0.5:1

Note that the above FSRs are indicative of likely and achievable outcomes. They are not meant to be recommended FSRs in a statutory instrument. These FSRs are not inconsistent with the urban design study undertaken by HBO+EMTB as they refer to gross floor areas by gross site areas (including local streets).

Riverlink's precincts are indicated in the following plans. The first aerial map overlays the precincts with existing land uses. The second map indicates the extent of the flood plain with respect to the precincts.

Figure 9 - Riverlink Precinct Plan Aerial

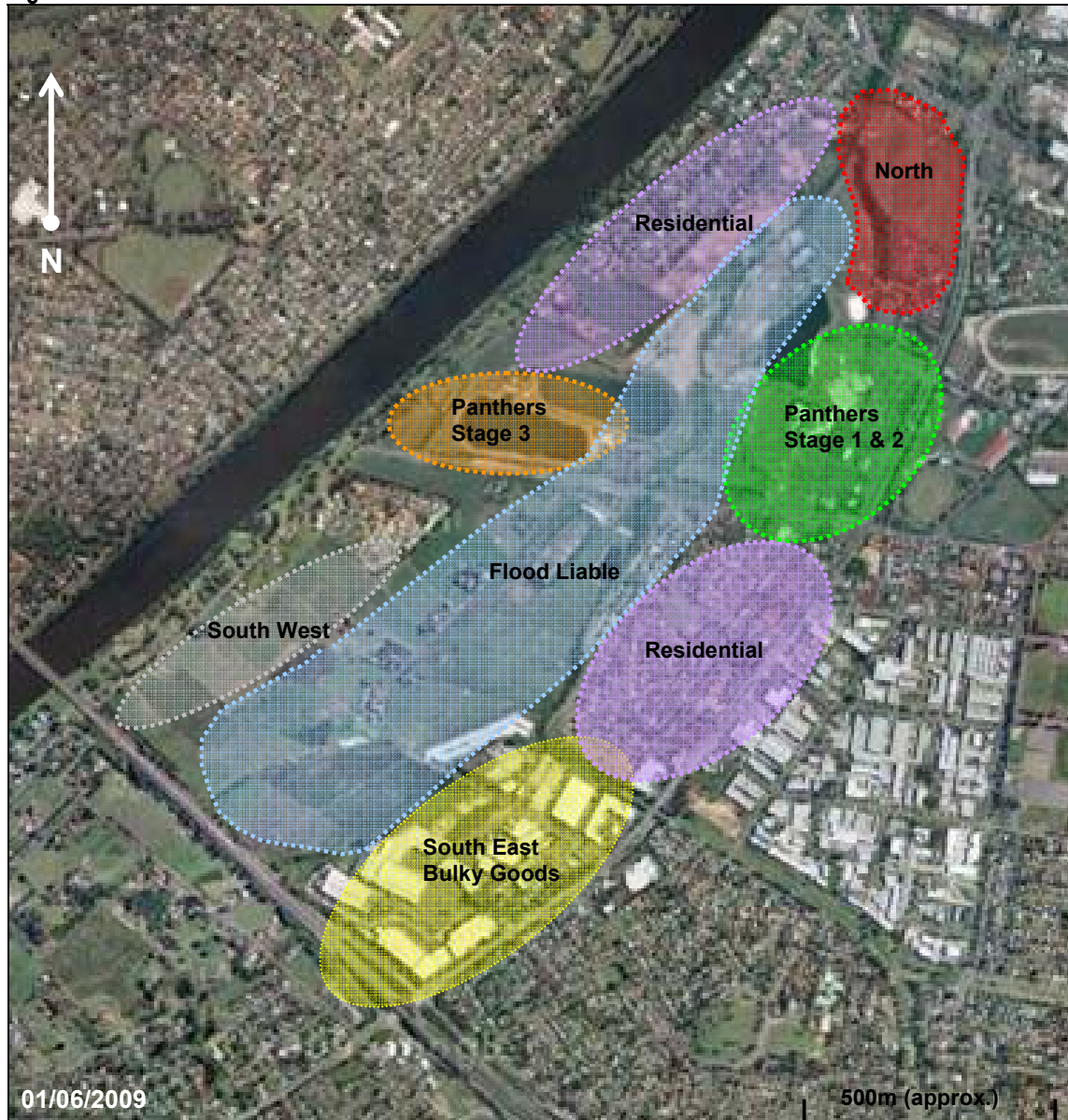
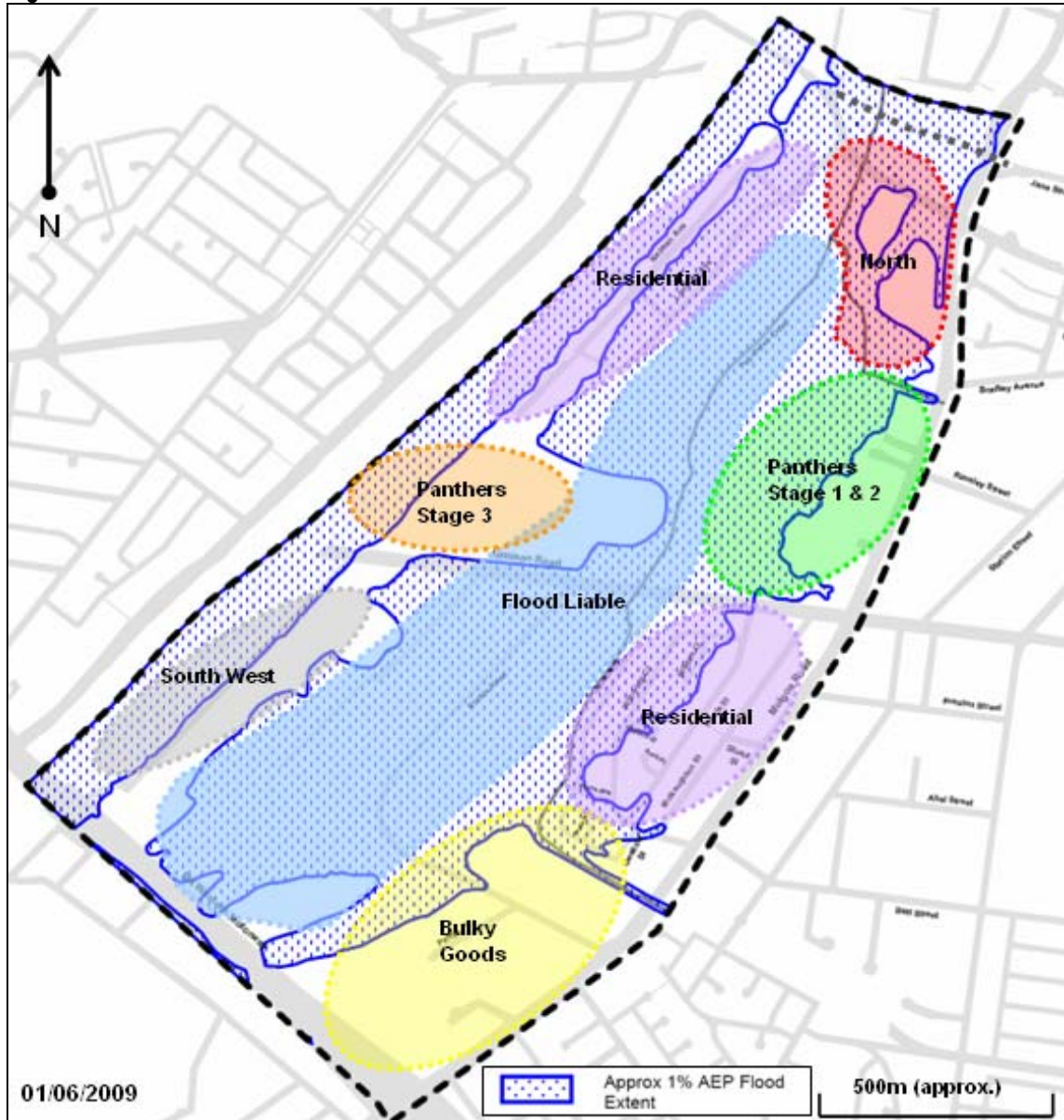


Figure 10 - Riverlink Precinct Plan with Flood Line



The following comments relate to the economic viability of proposed land uses in the Riverlink Precinct subject detailed feasibility testing:

Recreation

- Whilst traditionally the Riverlink Precinct was highly valued for its recreational opportunities, this may not represent the highest and best use of the site in the very long term (30 years +).
- Increasing residential land values, and the increasing pressure for new locations for commercial office space mean that locations for such uses close to Penrith CBD may be limited, putting a premium on land that fits these characteristics.

Retail Land Uses

- Panthers/ING has proposed a 25,000sqm brand outlet centre for the Panthers site. The modern format of brand outlet centres is inclusive of large floor plates, low fit out costs, and selling stock which is out of season and in some cases damaged or factory seconds stock. These clothing manufacturers and retailers are joined by other brands which have traditionally included footwear, linen, home wares, kitchenware, glassware, fashion accessories, giftware, music, mobile phones, cafés, and small food operators.
- On the whole the brand outlet centre would be a good investment for Penrith LGA. It offers price competitive shopping, will bring additional shoppers to Penrith, and may either widen or intensify the existing trade area of the CBD (i.e. Penrith will capture a greater share of expenditure within the trade area).
- The preferred location for a brand outlet centre is in Penrith CBD. There are two or three potential sites in the CBD (although these sites are not as large as the Panthers site). For these reasons the Brand Outlet Centre has not been included in the above land use table. The exclusion of the brand outlet centre from the above table does not necessarily preclude the option. It's a recognition that there are alternatives and that a full and detailed assessment is required should this option be further considered.
- The location of Mulgoa Road is an ideal and preferred location for bulky goods retailing given its locational characteristics and existing cluster of bulky goods floorspace. Notwithstanding its strengths, Mulgoa Road will face competition from other locations. If the supply of land and floorspace is severely restricted over time and it fails to meet the growth in demand, supply will move to other locations. Bulky goods at the Panthers site will have a direct impact on the Mulgoa Road precinct.
- There are a couple of remaining non-flood affected 2 hectare sites on the corner of Blaikie Road and Pattys Place that can accommodate some additional bulky goods retailing.

Business Park

- The Riverlink Precinct is attractive for commercial development due to its proximity to Penrith CBD, amenity, views, and water.
- For business park type tenants to consider Penrith LGA there needs to be a significant shift that not only demonstrates the cost advantages of the location but also the lifestyle attributes of the centre and its environs.
- Riverlink is located within proximity of the Penrith Lakes Scheme and the Nepean River and as such provides attractive locational qualities with scenic views to the lakes which may be attractive to those potential office users seeking a point of difference to the types of product being offered in the CBD. These types of users could be lost from Penrith LGA should they prefer areas like Norwest for these reasons.
- Given the differences between Riverlink and the WELL precinct, there may be a case for two differently themed business parks, especially considering the WELL precinct's links with the University and its high technology focus.

- It is unlikely that there is a sufficiently large enough site in Penrith CBD for the relocation of high profile tenants and corporate headquarters.
- Government offices and small scale private businesses that provide local services (e.g. accountant, lawyer, architects, medical etc) should be encouraged in the CBD and discouraged in out-of-centre locations like Riverlink.

Regional Attractions

- Tourist attractions are fundamental to the existence of tourism with major attractions often labelled flagship attractions, referring to their role as focal points and as catalysts for tourism development in a region or a tourism destination.
- Amenities and aspect of the Riverlink Precinct (such as the river, mountain views and proximity to the Regatta) present an appropriate location for hospitality uses (e.g. hotels, cafes, restaurants etc). Recreation, events and commercial office at the site also provide an opportunity for the provision of accommodation to cater for visitors.
- Recreation and scenic assets provide opportunities for the longer term development of hotel facilities (a leisure destination). An opportunity exists to include a restaurant facility either attached or separate to the hotel/motel to allow both users to trade off each other, increasing revenue to the Riverlink Precinct in the longer term.
- Two 150-300room hotels might be viable if the balance of the site is developed for entertainment purposes or as an extension of the CBD.
- A function centre is very capital intensive and would struggle to find a standalone operator. As such, it is suggested the function centre be combined with other uses like restaurants or the tavern in order to find an operator capable of running both uses successfully.
- A bowling alley fits within an entertainment precinct's objectives, and combined within the Panthers entertainment complex, it is unlikely there are planning constraints preventing it from being located onsite. Furthermore, it is understood the AMF Bowling centre previously located in Woodrifle Street Penrith, will be closed from October 2009. It was the only Bowling centre in the LGA.
- Museums and galleries are not overly attractive in economic terms.
- Museums, galleries, amusement parks, big outdoor entertainment screens, events and the like may develop, however it would only be because existing operators or a particular party approached the land owners with the specific desire to build such a use at their own cost. Generally, these uses are not economically viable in a commercial sense, are high risk and require significant capital for start up.
- Some particular parkland uses such as an eco-tourism resort or wellness centre should rely on a prospective and proven operator to tender to operate that use in the parkland.
- The population of more than 300,000 people in outer Western Sydney (equivalent to Canberra's population) provides sufficient demand to support a range of sporting and recreational venues including a Sports stadium, sports centre, management school and sports academy.
- A private high school or selective sports high school is another use that provides that synergy with the sporting, tourist, recreational theme of Riverlink.

Theme Park or Gated Attraction

Prior to any gated attraction or theme park being envisaged for the Riverlink Precinct a feasibility study should be undertaken analysing the potential viability of the new venture through an in-depth analysis of market demand and competitive influence. Additionally, the study should also provide critically important "positioning strategies".

The value of the land at the Riverlink Precinct for a theme park or gated attraction will not be significant. If the theme park can be built on flood prone land (which is almost worthless anyway) this would provide external benefits to the local economy.

The operator of the park may require considerable government funding for establishment at the Riverlink Precinct and as such will not pay a high value for the land. The value of the land may be similar to that of industrial land. It will not be as high as a residential or commercial office development site value.

It is also likely that such an attraction will create a multiplier effect in that the combined demand from the new outlets will cause the Riverlink Precinct to be a more popular destination which will lead to more money being spent outside of the attraction but within the Riverlink Precinct.

However, the initial success of a theme park or gated attraction can create false and unrealistic expectations about future attendance and ongoing success. Repeat visitation plays a critical role in successful operations of a theme park/gated attraction. Often the life cycle of a theme park is characterised by reaching the stagnation stage within two years of operation when the peak of the cycle occurs, followed by decline, then possible rejuvenation if new facilities or development are provided.

Other considerations for such a use at the Riverlink Precinct are:

- Scope and nature of the proposed attraction.
- The compatibility of adjacent land uses.
- Accessibility - both existing and potential.
- The complementary nature, attendance characteristics and trends of public and private cultural, historical and entertainment facilities. Although any existing or proposed attraction is a competitor, they may also serve to complement the planned attraction.
- Entertainment scope and market drawing power of existing and proposed competitive attractions in the region.
- Expenditure patterns and operating characteristics for area recreational and cultural activities.
- Proximity to resident and tourist markets.
- Size and characteristics of the available markets
- Penetration projection of the available markets.
- Proposed pricing policies.

- The financial impact of the development.

Panthers/ING Proposal

- It may be that with increasing demand for commercial floorspace over time, the Panthers/ING proposal is not viewed as an isolated option, but evolves to include other uses as the market demands it.
- The main consideration for the Panthers/ING proposal in the Riverlink Precinct is whether there are alternative locations for such activity should it not be at the Riverlink Precinct.

The three LGAs in outer Western Sydney have a combined population of over 300,000 people – equivalent to Canberra's population. This population is increasing both in size and affluence. Other uses include a private or sports selective school, sports academy / management school and sports centre and stadium. It is generally considered that these uses are supportable within a sub-region of this size.

10.4 Timing and Staging of Development

Based on viability, Hill PDA has recommended the following staging plan. Short term refers to within the next 6 years. Medium term refers to 6-12 years time. Long term, are those uses that are highly unlikely to occur or are not considered feasible in the next 12 years.

Table 24 - Riverlink Precinct Preferred Land Use Plan

Precinct Land Uses	GFA Existing	GFA Proposed	Stage	Panther's Stage
North*				
Sports Stadium		2,000	Medium term	
Indoor / Outdoor Sports Centre		5,000	Medium term	
Integrated Visitor Centre / museum / gallery		2,000	Short term	
Sports Academy / Management School		4,000	Short term	
Art / Cultural / Business Incubator		3,000	Short term	
General Retail ground floor		5,000	Short term	
Fresh Food Markets		4,000	Short term	
Private High School		10,000	Medium term	
TOTAL		35,000		
Penrith Panthers Stages 1 & 2				
Club	27,200	27,200		
Conferences / Conventions	21,000	48,200	Short term	1
Aquatic health wellness centre		4,000	Short term	1
Hotel	11,500	41,700	Short term	1
Serviced Apartments		9,000	Short term	1
Cinemas & bowling		8,500	Short term	1
General Retail		9,000	Short-Med term	2
Restaurants	3,050	3,500	Short-Med term	2
Commercial Suites		6,000	Short-Med term	2
Business Park		25,000	Short-Med term	2
Multi-use Arena		30,000	Short term	1
Seniors Living Residential		50,000	Short-Med term	2
Residential Medium Density		54,000	Short-Med term	2
Residential High Density		30,000	Short-Med term	2
TOTAL	62,750	346,100		
Panthers Stage 3				

Precinct Land Uses	GFA Existing	GFA Proposed	Stage	Panther's Stage
Restaurants, Hotel/Tavern, Functions, Conference Facilities and River Rec. Uses		15,000	Long Term	3
TOTAL		15,000		
Southwest				
Restaurants		1,200	Medium term	
Tavern		1,500	Medium term	
Functions / receptions		1,500	Medium term	
River recreational uses		1,500	Medium term	
TOTAL		5,700		
Southeast				
Bulky Goods		15,000	Medium term	
TOTAL		15,000		
Flood Liable Land**				
Water Theme Park		20,000	Short-Med term	
Golf Course (18 Holes)		1,000	Medium term	
Camping Grounds			Medium term	
Eco tourism resort		7,500	Medium term	
Market Gardens			Short-Med term	
City Garden			Short-Med term	
TOTAL		28,500		
TOTAL	62,750	445,300		

* Components of these uses could be constructed on flood liable land such as the playing grounds for the school.

** Subject to flood compatibility.

There will be certain land uses like a theme park, or eco-tourism resort, which may only occur by a specialist operator approaching Council for the development of such a use, thereby seeing the potential for that land use to be located in Penrith. As a result, the timing and floorspace ratios associated to these land uses can not necessarily be confirmed at this point in time.

10.5 Recommended Land Use Zonings

Based on the schedule of preferred land uses for the Riverlink Precinct, Hill PDA considered appropriate zones for the Precinct with regard to the NSW Department of Planning's LEP Template.

B4 Mixed Use Zone could apply to uses in the North of the Riverlink Precinct (extension of CBD to the river) to provide a mixture of compatible land uses and to integrate suitable business, office, residential, retail and other development in accessible locations. Zone also aims to maximise public transport patronage and encourage walking and cycling.

SP3 Tourist Zone could apply to the South West Precinct to provide for a variety of tourist-oriented development and related uses. Permitted uses include: Food and drink premises; Tourist and visitor accommodation.

Various zones could apply to the Panthers site with permissible land uses added as seen fit. Potential base zones include:

- SP3 Tourist Zone to provide for a variety of tourist-oriented development and related uses. Permitted uses include: Food and drink premises; Tourist and visitor accommodation.

- B6 Enterprise Corridor Zone to promote businesses along main roads and to encourage a mix of compatible uses; to provide a range of employment uses (including business, office, retail and light industrial uses) and residential uses (but only as part of a mixed use development); and to maintain the economic strength of centres by limiting retailing activity.
- B4 Mixed Use Zone to provide a mixture of compatible land uses and to integrate suitable business, office, residential, retail and other development in accessible locations. Zone also aims to maximise public transport patronage and encourage walking and cycling.

Obviously the extent of retail proposed by Panthers/ING will impact the use of these zones for the Panthers site. Whilst a mixed use zone provides flexibility, it also limits Council's control of development on the site. Furthermore, residential is allowed in a mixed use zone and not necessarily in the tourism zone. As a result, Hill PDA would recommend Stage 1 and 2 of the Panthers/ING proposal be zoned tourism with residential as an added permitted use. Hill PDA would also recommend Stage 3 be zoned tourism but not permitting residential.

The B6 Enterprise Corridor Zone may be appropriate for the entire length of the Mulgoa Road boundary of the Precinct, from the bulky goods precinct in the south to the Carpenters site in the north.

11. IMPACT ASSESSMENT

11.1 Construction Impacts

The estimated construction cost for the Riverlink Precinct is approximately \$966m of which the Penrith Panthers is around 80% of this. This cost is estimated from the application of indicative “high level” construction cost rates sourced from Rawlinsons Construction Handbook 2008. The estimated costs are presented in the table below.

Table 25 - Riverlink Precinct Construction Impacts

	Site (ha)	GFA Existing	GFA Proposed	Non-GFA (sqm)	Construct. Rate (\$/sqm)	Fitout Costs (\$/sqm)	Total Costs (\$m)
North							
Sports Stadium	2.0		2,000		1,300	250	3.1
Indoor / Outdoor Sports Centre	1.5		5,000		1,500	250	8.8
Integrated Visitor / museum / gallery			2,000		2,000	250	4.5
Sports Academy / Management School			4,000		2,000	250	9.0
Art / Cultural / Business Incubator	3.0		3,000		2,000	250	6.8
General Retail ground floor			5,000		2,000	500	12.5
Fresh Food Markets			4,000		1,600	250	7.4
Private High School	7.0		10,000		1,700	250	19.5
Site Costs				107,000	100		10.7
Car Parking multi-deck (not GFA)	0.7			16,000	600		9.6
TOTAL	14.2		35,000	123,000			91.8
Penrith Panthers Stage 1 & 2							
Club		27,200	27,200		2,050	500	0.0
Conferences / Conventions		21,000	48,200		2,050	250	62.6
Aquatic health wellness centre			4,000		1,500	250	7.0
Hotel		11,500	41,700		2,600	250	86.1
Serviced Apartments			9,000		2,600	250	25.7
Cinemas & bowling			8,500		2,050	500	21.7
General Retail			9,000		1,800	500	20.7
Restaurants		3,050	3,500		1,800	500	8.1
Commercial Suites			6,000		1,800	500	13.8
Business Park			25,000		1,500	500	50.0
Multi-use Arena			30,000		2,200	250	73.5
Seniors Living Residential			50,000		2,100		105.0
Residential Medium Density			54,000		2,100		113.4
Residential High Density			30,000		2,100		63.0
Site Costs				163,650	100		16.4
Car Parking multi-deck (not GFA)				160,000	600		96.0
TOTAL	56.7	62,750	346,100	323,650			755.8
Panthers Stage 3							
Restaurants, Hotel/Tavern, Functions, Conference Facilities & River Rec. Uses	3.5		15,000		2100	500	39.0
Site Costs				15,000	100		1.5
TOTAL	3.5		15,000	15,000			40.5
Southwest							
Restaurants			1,200		1,300	500	2.2
Tavern	1.5		1,500		2,100		3.2
Functions / receptions			1,500		2,100		3.2
River recreational uses			1,500				
Site Costs				9,300	85		0.8
TOTAL	1.5		5,700	9,300			8.5

	Site (ha)	GFA Existing	GFA Proposed	Non-GFA (sqm)	Construct. Rate (\$/sqm)	Fitout Costs (\$/sqm)	Total Costs (\$m)
Southeast							
Bulky Goods	3.5		15,000		1,100	250	20.3
Site Costs				20,000	85		1.7
TOTAL	3.5		15,000	20,000			20.3
Flood Liabile Land							
Water Theme Park	7.5		20,000		2,000		40.0
Golf Course (18 Holes)	35.0		1,000		2,000		2.0
Camping Grounds	5.0						0.0
Eco tourism resort	4.0		7,500		900		6.8
Market Gardens	4.0						0.0
City Garden	10.0						0.0
Site Costs				626,500	40		25.1
TOTAL	65.5		28,500	626,500			48.8
TOTAL	144.9	62,750	445,300	1,117,450			965.5

The construction industry is a significant component of the economy accounting for 6.6% of Gross Domestic Product (GDP) and employing almost 14.6% of the workforce at March 2003. The industry has strong linkages with other sectors, so its impacts on the economy go further than the direct contribution of construction. Multipliers refer to the level of additional economic activity generated by a source industry.

There are two types of multipliers:

Production induced: which is made up of:

- First round effect: which is all outputs and employment required to produce the inputs for construction; and
- An industrial support effect: which is the induced extra output and employment from all industries to support the production of the first round effect; and

Consumption induced: which relates to the demand for additional goods and services due to increased spending by the wage and salary earners across all industries arising from employment

The source of the multipliers adopted in this report is ABS and Australian National Accounts: Input-Output Tables 1996-97 (ABS Catalogue 5209.0). These tables identify first round effects, industrial support effects and consumption induced multiplier effects at rates of \$0.466, \$0.438 and \$0.962 respectively to every dollar of construction.

Table 26 - Riverlink Precinct Multiplier Impacts

Precinct	Site (ha)	GFA Existing	GFA Proposed	Non-GFA (sqm)	Direct Construction Costs (\$m)	Total Added Value (\$m)
Northern Sector	14.20	0	35,000	123,000	92	263
Panthers Site Stages 1 & 2	56.70	62,750	346,100	323,650	579	2,166
Panthers Site Stage 3	3.50	0	15,000	15,000	41	116
Southwest Sector	1.50	0	5,700	9,300	8	24
Southeast Sector	3.50	0	15,000	20,000	20	58
Flood Liability	65.50	0	28,500	626,500	49	140
TOTAL	75.90	59,700	445,300	1,117,450	789	2,767

The table above shows that in addition to the \$789m of direct construction, there is an added value of \$1.47b to the Australian economy and a total value of 2.26 billion dollars.

Note that the above multiplier effects are nation wide, and not necessarily local. The ABS notes that “Care is needed in interpreting multiplier effects; their theoretical basis produces estimates which somewhat overstate the actual impacts in terms of output and employment. Nevertheless, the estimates illustrate the high flow-on effects of construction activity to the rest of the economy. Clearly, through its multipliers, construction activity has a high impact on the economy.”

The proportion of multiplier impacts that are local depends on a number of factors including the source of materials and the contractors employed. Some proportion of consumption induced impacts (around \$0.9b) is expected to represent local spend by on site workers.

11.2 Employment from Construction

The proposed developments will generate jobs in two ways – through construction and through commercial operations.

It is estimated that for every million dollars of construction there are 5.6 jobs created over 12 months (job year). Hence the \$0.97b project will generate around 5,400 job years directly in construction.

For every job year generated directly in construction there is 0.78 job years in production induced multiplier effects and a further 2.33 in consumption induced effects. The table below provides total employment generated, measured in full time job years, resulting from construction.

Table 27 - Riverlink Precinct Jobs during Construction

Precinct	Direct Construction Costs (\$m)	Construction Job Years	Production Induced Job Years	Consumption Induced Job Years	Total Job Years
Northern Sector	92	514	401	1,198	2,113
Panthers Stages 1&2	756	4,232	3,301	9,861	17,394
Panthers Stage 3	41	227	177	528	932
Southwest Sector	8	47	37	110	195
Southeast Sector	20	113	88	264	466
Flood Liability	49	273	213	636	1,122
TOTAL	966	5,407	4,217	12,598	22,222

As a result of 5,407 job years projected to be created directly in construction as a result of Riverlink development, the overall value to the Australian economy measured in job years is 22,222. Again the multiplier impacts are national and not local. As a rule of thumb around one third to half of multiplier impacts are local impacts. We will expect some positive impacts on the local economy – particularly in retail and service industries for the workers on site.

11.3 Employment Post Construction

Employment post construction is measured as full-time equivalents (FTE) and was estimated by dividing floor area by worker occupancy rates. Note that full time equivalent are typically lower than estimates for full-time

and part-time / casual workers – particularly in retail and entertainment uses where there are high proportions of part-time staff. Estimated workers are provided in the table below.

Table 28 - Riverlink Precinct Jobs Post Construction

Precinct Land Uses	GFA	FTE (sqm/staff)*	FTE
North			
Sports Stadium	2,000	400	5
Indoor / Outdoor Sports Centre	5,000	220	23
Integrated Visitor Centre / museum / gallery	2,000	100	20
Sports Academy / Management School	4,000	100	40
Art / Cultural / Business Incubator	3,000	100	30
General Retail ground floor	5,000	40	125
Fresh Food Markets	4,000	120	33
GPS School	10,000	120	83
TOTAL	35,000		359
Penrith Panthers Stages 1 & 2			
Club	27,200	100	272
Conferences / Conventions	48,200	100	482
Aquatic health wellness centre	4,000	120	33
Hotel	41,700	220	190
Serviced Apartments	9,000	400	23
Cinemas & bowling	8,500	220	39
General Retail	9,000	40	225
Restaurants	3,500	40	88
Commercial Suites	6,000	22	273
Brand Outlet Retail	25,000	70	357
Multi-use Arena	30,000	400	75
Seniors Living Residential			0
TOTAL	212,100		2,055
Panthers Stage 3			
Restaurants, Hotel/Tavern, Functions, Conference Facilities and River Rec. Uses	15,000	682	39
TOTAL	15,000	682	39
Southwest			
Restaurants	1,200	45	27
Tavern	1,500	45	33
Functions / receptions	1,500	100	15
TOTAL	4,200		75
Southeast			
Bulky Goods	15,000	70	214
Site Costs			0
TOTAL	15,000		214
Flood Liable Land			
Water Theme Park	20,000	100	200
Golf Course (18 Holes)	1,000	100	10
Camping Grounds			4
Eco tourism resort			2
Market Gardens			4
City Garden			0
TOTAL	21,000		220
TOTAL	287,300		2,924

* Various sources including Hill PDA research, ABS Retail Survey 1998-99, SGS, Julianne Christie (Research) for Penrith City Council.

Around 76% of the estimate workers on site are on the Panthers site. Whilst the above estimates are lower than Panther's estimates they relate to full-time equivalents.

11.4 Value of Post Construction Employment

The value of employment on site is measured by wages and the direct flow on and value added (multiplier impacts) to the broader economy. The wages and multiplier impacts are provided in the table below.

Table 29 - Riverlink Precinct Post Construction Wages and Multipliers

Industry	Average Salary	Multiplier Impacts
Retail	50,000	1.584
Commercial	70,000	1.537
Entertainment	57,500	1.467
Industrial	57,500	2.411

The above multipliers are State wide. Again caution needs to be given in any interpretation to benefits to the local (Penrith) economy. Total value to the NSW economy every year is estimated at \$418m as shown in the table below.

Table 30 - Riverlink Precinct Jobs Post Construction

Precinct	GFA	Full Time Equivalent Jobs	Salaries (\$m/ann)	Total Value per annum (\$m)
Northern Sector	35,000	359	21	52
Panthers Stages 1 & 2	212,100	2,055	119	297
Panthers Stage 3	15,000	682	39	97
Southwest Sector	4,200	75	4	10
Southeast Sector	15,000	214	11	28
Flood Liability	21,000	220	13	31
Total	302,300	3,606	206	515

11.5 Retail and Commercial Land Use Impacts

General Retail

General retail is divided into two components: the northern end of the Precinct and the Panthers site. Any retail in the northern portion of the Riverlink Precinct is viewed as an extension to Penrith CBD, providing an active link down to the Nepean River. Given the other land uses suggested for this location (e.g. tourism, hotels etc); the retail will form part of that synergy of land uses.

Hill PDA's expenditure modelling results indicated 12,500sqm of shop front space on the Panthers site is supported by additional tourist spend, workers and residents on site. With this level of retail space there would be no adverse impacts on other centres in Penrith LGA other than some positive impacts on Penrith CBD since an allowance of 50% of residents' expenditure is assumed to escape the Panther's site to other higher order centres (mostly to Penrith CBD).

Should retail on the Panthers site be any larger, there is likely to be some adverse impacts on the Penrith CBD. It's important to realise however that growth in expenditure in the trade area (Penrith, Blue Mountains and Hawkesbury LGA's) will generate demand for a further 4,000sqm of non-bulky goods retail space in the CBD every year. There is an opportunity for some of this growth to be taken up in the Riverlink Precinct if it is not absorbed in the CBD.

The Panthers/ING proposal offers around 12,000sqm more retail space than required to service the Panthers' site itself. With a turnover of say \$5,000 to \$5,500/sqm this equates to \$60m to \$65m being redirected from other centres. Hill PDA envisages that at least half of this (around \$35m) would be redirected from the CBD. This is an immediate loss in trade of 3.5%.

If combined with a factory or brand outlet centre (an additional 25,000sqm) the impact on the CBD is likely to be as high as \$90m or 9% of turnover which is significant. However, with around \$20m real growth in expenditure captured by the CBD every year, the loss in trade to the CBD may be absorbed by as little as five years growth depending upon the mix of retail types.

Brand Outlet Centre

It is understood Panthers/ING have proposed a 25,000sqm brand outlet centre as part of Stage 1 of their concept plan. The brand outlet centre provides some competition with existing retailers in Westfield Penrith, Centro Nepean, and other strip retail locations. Because of this its impacts need to be fully considered.

It is recognised that Stage 2 of the Panthers concept plan envisages expansion of the brand outlet centre by an additional 18,000sqm, bringing the brand outlet centre to 43,000sqm, just over half the size of Westfield Penrith. However, the impacts of this component are dependent on the timing of the expansion.

There are two or three potential alternative sites in the CBD for brand outlet retailing (although these sites are not as large as the Panthers site). For these reasons the Brand Outlet Centre has not been included in the preferred land use table. However this does not necessarily imply preclusion only that a full and detailed assessment of the proposal and its impacts is required should this option be pursued.

Bulky Goods

Bulky goods in Penrith LGA would draw trade from a trade area which covers not only Penrith LGA but also the Blue Mountains and Hawkesbury. Due to the comparative advantages of price and choice for large price items, people are prepared to travel longer distances to undertake shopping for these facilities.

The Mulgoa Road bulky goods precinct, also known as South Penrith Industrial Area, has developed into the main bulky goods precinct for Outer-Western Sydney. The area also has interspersed fast food outlets and industrial service businesses (e.g. auto-mechanics). In addition to the traditional bulky goods retailers of furniture, floor coverings, lighting and domestic appliances, bulky goods stores now include speciality store operators in recreational goods (such as Toy-R-U's, Rebel Sport and BBQ Galore), and domestic hardware and houseware (BBC Hardware House, Bunnings).

Bulky Goods retailing is not limited to bulky items with the advent of superstores such as Harvey Norman and Dick Smith, which operate as quasi-department stores without clothing and cosmetics. As a result, bulky goods stores compete for the majority of non-food household expenditure items with the current exception of clothing, pharmaceuticals, cosmetics and toiletry retailing.

Hill PDA's expenditure modelling results indicate that current supply of bulky goods in Penrith CBD and Jamisontown (122,980sqm) is sufficiently meeting demand from the trade area (100,620sqm) until 2016 when growth in expenditure will lead to demand for additional floorspace. As a result there is no immediate demand

for additional bulky goods floorspace. Hill PDA's modelling may suggest that bulky goods in Penrith may be trading slightly below target levels (\$3,500/sqm) but this remains sustainable for this location.

Furthermore, there may be bulky goods retailers currently not represented in Penrith who should not be restricted from locating in the Mulgoa Road precinct – the most appropriate location for new bulky goods retailers. The location of Mulgoa Road is an ideal and preferred location for bulky goods retailing given the following:

- Good car access directly off the M4 Motorway, which feeds the Blue Mountains and journey to work trips from Penrith, and to a lesser extent Hawkesbury, to Parramatta and Sydney. Ease of access compared to access in the commercial centre;
- It has a high traffic count which maximises exposure to passing traffic and maximises accessibility to the catchment. Major Roads carrying large traffic volumes provide retailers with access to a range of market segmented trips;
- Customer use of retail facilities is somewhat guided by repetitive marketing (i.e. driving past a site daily);
- The bulky goods retailers in Mulgoa Road provide generous parking provision and internal access and loading/unloading can be performed with ease (by comparison, the Penrith CBD has a number of problems with access and site suitability for adequate car parking to be accommodated on site without significant structural reform/cost);
- Mulgoa Road remains in close proximity to the Penrith Westfield regional shopping centre, which allows it's customers to consider mixing their shopping trips between Mulgoa Road and Penrith CBD; and
- Mulgoa Road offers land cheaper than the commercial centre.

Notwithstanding the above strengths of Mulgoa Road as a bulky goods precinct, it will face competition from other locations. If the supply of land and floorspace is severely restricted over time and the precinct fails to meet the growth in demand, supply will move to other locations. Examples would include Eastern Creek given its access to the M4 and its ability to capture early the Blue Mountains and Penrith market. Other locations may be the lower Blue Mountains and Richmond, but these locations would only likely be secondary.

It is acknowledged the Panthers/ING project proposes bulky goods development as part of their brand outlet centre, which will have a direct impact on the Mulgoa Road precinct. If the immediate development of the Panthers site results in an oversupply of bulky goods, the performance of the Mulgoa Road precinct will decline. However, by 2016 growth in household expenditure will translate to demand for additional bulky goods floorspace, and with the Mulgoa Road precinct largely built out, the Panthers site will probably prove the next viable and suitable location for bulky goods expansion.

The impact upon Penrith CBD by additional bulky goods development in Riverlink will be minimal given there is not a large concentration of bulky goods in the CBD except for the Henry Lawson centre to the east of the CBD.

At least with the bulky goods retailers on the periphery of the Penrith CBD, there is the likelihood of customer capture either for further product comparison with competing traders in the Penrith CBD or simply those bulky goods customers electing to further shop for clothes or entertainment in the Penrith CBD.

With the exception of Katoomba and Richmond, most centres in the trade area have minimal floorspace that competes with bulky goods retailers. Where they do exist, the floor areas of these stores are small and their trade focus is on local convenience. For example, the small hardware store or the Retravisson store that sells small appliances at a higher price for local convenience. The impact of the bulky goods stores is likely to have already occurred and any change is minimal.

Business Park

Hill PDA's 2004 study noted that office space including professional and shop front commercial premises (real estate agents etc), accounted for approximately 100,000sqm of floorspace in Penrith CBD. The supply of which is predominantly located in low-rise office or retail/office buildings.

Almost all the A-grade commercial space in the CBD is being occupied by government agencies. These government agencies as well as others generally require a CBD location to service their clients and to provide convenience to both staff and clients using public transport. The most recent development is the 9,200sqm State Government building at 129 Station Street. The new building houses the Sydney Catchment Authority, Department of Community Services, and the Office of Fair Trading. Lower grades of commercial space are being occupied by a range of businesses typically found in suburban district centres.

The prime uses in Penrith CBD include medical and health, financial and insurance, legal services, educational services, employment services, community services, office equipment and services and a range of other businesses. These uses are attracted to the CBD to better serve their clients. In most cases they are not the type of businesses found locating within employment lands like Norwest Business Park.

The remaining employment lands in Penrith are mostly related to industrial land uses. Generally these precincts attract certain types of light industrial businesses, such as warehousing, logistics and distribution. Examples include industrial areas in Dunheved, Emu Plains, North Penrith and Kingswood.

A business park development in the Penrith LGA may be supported given:

- The location of Penrith (20 km to Blacktown, 25km to Parramatta and close to 50km to the Sydney CBD) makes the need for regional office representation a necessity;
- The critical mass of the population (the Penrith catchment is 300,000+ which is comparable to Canberra) is a size which warrants regional offices; and
- Council's active role in fostering government offices to locate in Penrith.

For business park type tenants to consider Penrith there needs to be a significant shift that not only demonstrates the cost advantages of the location but also demonstrates the lifestyle attributes of the centre and its environs.

It is recognised the WELL Precinct Strategy Plan proposes an Enterprise Technology Park. The advantages of the WELL precinct lie in its synergies with the University, and its better public transport and road access. The

main advantage of the Panthers site over the WELL precinct is its proximity to Penrith CBD, the Nepean River, and its Blue Mountains backdrop. The Panthers site, as part of the Riverlink Precinct, provides attractive locational qualities with scenic views which may be attractive to those potential users seeking a point of difference to the types of product being offered in the CBD and the WELL precinct.

In most cases these firms do not require a Penrith CBD address. Their choice is made on price, amenity, incentives, agglomeration of like industries, environment, facilities and services, accessibility and other factors. It is not about selecting an existing retail centre versus an industrial area versus a new business park within a local government area or sub-region.

Given the differences between the two locations (Panthers site and the WELL precinct), there may be a case for two differently themed business parks, especially considering the WELL precinct's links with the University and its high technology focus.

Furthermore, given the key drivers of demand for business park selection are:

- Cost of occupancy and of construction (rental cost/land/build cost);
- Accessibility for employees and customers;
- Prestige and amenity of the environs;
- Ease and flexibility to own, rent or build;
- Access to business services & support (knowledge & personnel);
- Access to suppliers;
- Capability for co-location of warehouse or showroom facilities with office administration; and
- Potential for expansion of warehouse and office space on site.

it is unlikely that there is a sufficiently large enough site in Penrith CBD for the relocation of high profile tenants, or corporate headquarters. However, government offices and small scale private businesses that provide local services (e.g. accountant, lawyer, architects, medical etc) should be encouraged in the CBD and discouraged in out-of-centre locations.

Whilst Panthers/ING has an interest in developing a business park no occupants have yet been committed. In such a case the following are key requirements for business parks that Council should consider:

- Require new business parks to be located in areas that will support the existing network of commercial centres and can be accessed;
- Business parks should only permit businesses that require large floor plates (more than 1,000sqm), and are linked with research and technology or require storage/warehousing component. Those businesses that are purely office related (i.e. accountants, solicitors, etc) should not be permitted within business parks but encouraged in commercial/retail centres to help support their viability;

11.6 Regional Attraction Land Use Impacts

Riverfront Uses

The Riverlink Precinct is bound by the Nepean River to the west. This corridor offers passive recreational uses along the riverbank. Promenades and picnic areas are already located along the riverfront along with cycling and walking trails.

Passive waterfront recreation land uses could include: walking trails, fishing, bird watching, and boating facilities. Potential land uses to intensify the recreational use of the riverfront parklands could include:

- Waterfront cafés/restaurants;
- Marina/ferry wharf;
- Conserve/interpret heritage items;
- Fishing facilities;
- Landing for boating;
- Cross river access; and
- Camping areas.

Many of these land uses would not prove viable for private developers unless they could be offset against a more viable land use. Intensification of community facilities such as toilets, BBQ areas, and picnic shelters could commence immediately as they are not reliant upon future infrastructure.

Large Outdoor Events & Weekend Markets

Large outdoor events are interim and temporary land uses. Revenue is generated from the hiring of the grounds for events (i.e. car shows, music festivals and concerts). Socially they are a great idea – brings people together and creates a community atmosphere. However, public transport and access to the site would be mandatory for this use to be successful.

Additional advantages of such a use include:

- Create a critical mass of people which may use other facilities in the Riverlink Precinct, therefore contributing to turnover of other uses (e.g. café's);
- Creates awareness of the Riverlink Precinct and other activities it provides;
- Festivals and events can create the first impression leading to repeat visitors;
- If event infrastructure is installed, increased revenue can be obtained through the hiring of these facilities and infrastructure by event coordinators;
- Temporary uses that can be encourage or lessened as new more permanent uses are established; and
- Festivals and performance entertainment will flow on from the interim use. Cost will include an outlay of to service the site.

Market Gardening, Production Cropping, Wildlife Sanctuary

Market gardening and production cropping could prove viable land uses for flood prone areas. Furthermore, they can provide temporary land uses that are installed until such time as higher order land uses become feasible. In order to incentivise market gardening and production cropping, a concessional grant can be given to a potential lessee in exchange for planting and production.

A wildlife sanctuary (indigenous flora and fauna) can operate together with an indigenous cultural centre or visitor information centre. Again a concessional grant can be provided to encourage an external party to establish the wildlife sanctuary or cultural centre.

As no revenue will be generated for these land uses, the development costs will exceed the possible return gained. However, these land uses have an important role in preserving the cultural and indigenous heritage of the local area and subject site. As such, whilst they may not be viable in the short term, the uses will increase interest in the precinct and local area by prospective visitors, surrounding residents and tourists alike.

Museum and Gallery

Museums and galleries are not overly attractive in economic terms. Museums, galleries, amusement parks, big outdoor entertainment screens, and the like may develop, however it would only be because existing operators or a particular party approached the land owners with the specific desire to build such a use at their own cost. Generally, these uses are not economically viable in a commercial sense, are high risk or require significant capital for start up.

Convention & Exhibition Centre

A convention centre is not revenue generating by itself and may occur in the long term after the Riverlink Precinct and/or surrounding area has seen significant growth. Alternatively a party which wishes to undertake the development of more than one use (e.g. motel, tavern, and accommodation), may choose to undertake the convention centre as well.

Sports Recreation and Large Events

Given the existing and popular white water and rowing facilities at Penrith Lakes, the Riverlink Precinct could capitalise on a synergy of like recreational facilities to complement what already exists in Penrith LGA. The Riverlink Precinct could be developed as a recreation hub. Uses could include:

- Indoor and outdoor recreational centre;
- Entertainment Centre;
- Aquatic Centre;
- Restaurant/cafes/kiosk with alfresco dining;
- Basketball/tennis courts; and
- Restaurants/cafes/kiosk with alfresco dining.

Hospitality

The amenities and aspect of the Riverlink Precinct present an appropriate location for hospitality uses (e.g. hotels, cafes, restaurants etc). Recreation, events and commercial office at the site also provide an opportunity for the provision of accommodation to cater for visitors.

Recreation and scenic assets provide opportunities for the longer term development of hotel facilities (a leisure destination). An opportunity exists to include a restaurant facility either attached or separate to the hotel/motel to allow both users to trade off each other, increasing revenue to the Riverlink Precinct in the longer term.

Together with significant population growth across Penrith LGA, comes new tourism uses with the further recreational development of the Riverlink Precinct. This further development will increase the possibility of not only visitors associated with the new residential population, but recreation destination visitors, both of which increase the demand for visitor accommodation.

The Riverlink Precinct is within close proximity to Penrith Lakes, Penrith CBD, and Penrith Panthers which proposes new recreational facilities, a new residential community and new business and retail uses. Any new motel or hotel would have economic net benefits to these facilities.

Cinema

In the past two decades, the number of cinema screens has increased from 712 in 1988 to 1,941 at the end of 2007, with most of that growth occurring in the 1990s. Exhibitors have been doing most of the building within suburban shopping centres and, to a lesser extent, outside the major capital cities⁹.

For many thousands of people this has made it easier to get to the cinema than ever before. There were 86 screens in inner-city locations at the end of 2007, the lowest number for the last 20 years. In contrast, there were 1,063 in the suburbs. The contribution made by suburban cinemas to the annual gross box office was about 60% in 2007, although the proportion of screens was 55%⁹.

With the growth of new multiplexes and megaplexes which offer a choice of films, facilities and experiences under one roof, many older, smaller cinemas have closed down. This is a key reason why the number of cinemas in Australia has fallen by 35 to 485 venues in the past two decades, despite the number of screens increasing.

Hill PDA recognises that the economic impact of a cinema complex is difficult to quantify. There are multiplier impacts brought about by patrons attending a cinema, for example visiting surrounding entertainment or retail facilities, however quantifying these are difficult. There are currently 5 cinema complexes in the trade area, providing a total of 15 cinema screens.

⁹ Source: 'Get the Picture' is Screen Australia's comprehensive collection of statistics on the film, video, television and interactive digital media industries in Australia.

Table 31 - Cinema Screens in Trade Area

Cinema	Location	Screens
Hoyts	Penrith	10
Glenbrook Cinema	Glenbrook	1
The Edge Maxvision Cinema	Katoomba	4
Richmond Regent Twin Cinema	Richmond	2
Mount Vic Flicks	Mt Victoria	1
Total		18

Demand for cinema screens is based on research undertaken by the ABS and Screen Australia¹⁰ which indicates demand for 1 screen per 10,500 people. Given that the total population of the trade area is around 306,768 people, there is demand for around 29 screens¹¹. Given there is currently supply of 8 screens in the trade area, there is an undersupply.

Eco Tourism Resort

Eco-tourism is currently the fastest growing sector of tourism. Eco-tourism has commercial value and demonstrates the goals of where all forms of tourism can lead – environmental and cultural sensitivity and sustainability.

This growth in this niche industry reflects the increasing number of environmentally conscious consumers who have taken to eco-tourism because it combines a travel experience with the notion of being socially and environmentally responsible. Properly implemented, nature tourism can integrate conservation and rural development by: helping to protect valuable natural areas; providing reserves for planning and management; stimulating economic development through tourism expenditures; and, providing jobs and markets for locals.

Apart from offering an economic incentive for conservation, eco-tourism can provide benefits in several other ways including:

- Alternative to environmentally damaging industries – some areas may have fallen to the demands of intense industry. Apart from the revenue brought in by tourism, protected natural areas also generate income through the sustainable harvest of food product;
- Encourages individual conservation efforts – educates and entertains visitors and travellers;
- Encourages small scale infrastructure construction – one of the main benefits of eco-tourism is it can bring foreign exchange without the polluting factories and exploitative manufacturing companies. Instead, the infrastructure demands of an eco-tourism industry primarily include the construction of small scale hotels and transportation systems;
- Benefits to other industries – growth linkage possibilities of eco-tourism development can have far reaching effects of other sectors of the economy including local store, hotels, restaurants, the communications industry and agriculture; and

¹⁰ Source: 'Get the Picture' is Screen Australia's comprehensive collection of statistics on the film, video, television and interactive digital media industries in Australia.

¹¹ As at the 2006 ABS Census.

- Diversification – eco-tourism helps diversify the economy, which may have previously depended on agricultural products and exportation of raw materials.

Theme Park/Gated Attraction

Tourist attractions are fundamental to the existence of tourism with major attractions often labelled flagship attractions, referring to their role as focal points and as catalysts for tourism development in a region or a tourism destination.

Considerable public funding has been made available, often without sufficient background knowledge on potential visitor markets or how attractions function (individually and collectively) within the tourism context.

Theme parks constitute a group of man-made attractions in the field of international tourism. They are usually (and more-or-less by definition) large attractions, that often appear as flagships in their region or local area. Within the great variety of attractions - in almost any category of attractions there are examples of flagships – theme parks constitute a relatively homogeneous class of places to visit. Although there may be considerable conceptual differences from one park to another, their major attractive elements are appealing to basically the same kind of needs and demands for entertainment, experiences and playing activities.

Their market targets are quite broad in terms of visitor characteristics, but at the same time possible to identify - namely as the family segment.

The international tourism scene suggests that larger theme parks are usually located near big population centres. Understandably, peripherally located parks have to base their incomes more on tourism to compensate for the absence of sufficient local markets. They face less competition from other attractions than parks in more urbanised areas. For these reasons, they more frequently appear as flagship attractions in their local area.

However, the initial success of a theme park can create false and unrealistic expectations about future attendance and ongoing success. Repeat visitation plays a critical role in successful operations of a theme park. Often the life cycle of a theme park is characterised by reaching the stagnation stage within two years of operation when the peak of the cycle occurs, followed by decline, then possible rejuvenation if new facilities or development are provided.

A major reason for the lack of repeat visitation to theme parks revolves around the high admission fees and other costs associated with visiting theme parks relative to the average earnings of visitors.

In the case of attractions, impacts certainly comprise both effects of visitors' expenditures at the attraction (on-site expenditures) and effects of other expenditures in the area by the attraction visitors (off-site expenditures). A major problem is to separate off-site expenditures that are caused by the attraction's existence from those that are not.

For visitors coming to the area exclusively because of the attraction (who would not have come otherwise), all expenditures in the area are attributable to the attraction, and expenditure displacement is nonexistent by definition. Such displacement will in any case occur from businesses outside the area in question.

For local residents expenditure displacement is assumed to be significant because the household's expenditures are normally subordinated to a budget constraint (i.e. expenditures at the attraction will have an equivalent decrease in other expenditures, although not necessarily in tourism related expenditures).

The same argument may be used whenever the attraction expenditures replace consumption of other products or services imported to the area.

Disclaimer

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This report and its attached appendices are based on estimates, assumptions and information sourced and referenced by Hill PDA and its sub consultants. We present these estimates and assumptions as a basis for the reader's interpretation and analysis. With respect to forecasts we do not present them as results that will actually be achieved. We rely upon the interpretation of the reader to judge for themselves the likelihood of whether these projections can be achieved or not.

As is customary, in a report of this nature, while all possible care has been taken by the authors to prepare the attached financial models from the best information available at the time of writing, no responsibility can be undertaken for errors or inaccuracies that may have occurred both with the programming or the financial projections and their assumptions.

This report does not constitute a valuation of any property or interest in property. In preparing this report we have relied upon information concerning the subject property and/or proposed development provided by the client and we have not independently verified this information excepted where noted in this report.

APPENDIX 1 - 2006 ABS CENSUS DATA

	Blue Mountains LGA	Hawkesbury LGA	Penrith LGA
Population and Dwellings			
Total Population	74,067	60,561	172,140
Total Dwellings	32,732	22,902	62,165
Occupied Private Dwellings	28,311	21,141	58,198
Occupied Private Dwellings (%)	86.5%	92.3%	93.6%
Average Household Size	2.6	2.8	2.9
Age Distribution			
0-14	20.4%	23.1%	23.0%
15-29	17.0%	20.5%	23.0%
30-44	20.2%	22.4%	22.1%
45-59	23.5%	20.0%	20.0%
60-74	12.6%	9.6%	8.4%
75+	6.3%	4.4%	3.6%
Total	100.0%	100.0%	100.0%
Median Age	39	34	32
Place of Birth			
Australia & Oceania	80.1%	82.5%	76.1%
Europe	10.0%	8.0%	9.4%
North Africa and Middle East	0.2%	0.2%	1.0%
Asia	1.6%	1.2%	3.9%
Americas	0.7%	0.3%	0.2%
Sub-Saharan Africa	0.3%	0.2%	0.4%
Other	7.1%	7.5%	8.9%
Total	100.0%	100.0%	100.0%
Home Ownership			
Owned or Being Purchased	77.2%	72.3%	70.5%
Rented	19.8%	24.9%	26.6%
Other/Not Stated	3.0%	2.8%	2.8%
Total	100.0%	100.0%	100.0%
Household Structure			
Family Households	72.1%	77.9%	78.9%
Lone Person Households	25.1%	19.5%	18.6%
Group Households	2.8%	2.6%	2.5%
Total	100.0%	100.0%	100.0%
Family Type			
Couple family w. children	46.3%	51.3%	51.7%
Couple family w/o children	37.0%	32.0%	28.4%
One parent family	15.6%	15.7%	18.5%
Other family	1.1%	1.0%	1.4%
Total	100.0%	100.0%	100.0%
Dwelling Type			
Separate house	93.8%	86.8%	85.2%
Townhouse	3.4%	8.1%	8.1%
Flat-Unit-Apartment	2.6%	4.0%	6.0%
Other dwelling	0.2%	1.2%	0.6%
Not stated	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%
Labour Force			
Managers	11.6%	12.6%	9.6%
Professionals	26.6%	14.6%	12.2%

	Blue Mountains LGA	Hawkesbury LGA	Penrith LGA
Community & Personal Services	10.2%	8.5%	8.1%
Clerical and Administrative Workers	13.6%	14.9%	18.1%
Sales Workers	8.1%	8.2%	9.9%
Technicians & Trade Workers	12.7%	17.9%	15.1%
Machinery Operators & Drivers	4.0%	7.8%	10.0%
Labourers & Related Workers	7.0%	9.6%	10.0%
Inadequately described or N.S.	1.3%	1.7%	1.9%
Unemployed	4.9%	4.1%	5.3%
Total	100.0%	100.0%	100.0%
Weekly Household Income			
\$0-\$349	13.9%	11.1%	11.1%
\$400-\$799	19.8%	17.9%	18.4%
\$800-\$1,399	21.6%	24.9%	24.7%
\$1,400-\$2,499	22.7%	24.1%	25.5%
\$2,500+	11.6%	10.6%	9.6%
Partial income stated	8.3%	8.8%	8.2%
All incomes not stated	2.1%	2.7%	2.6%
Total	100.0%	100.0%	100.0%
<i>Median Weekly Household Income</i>	<i>\$1,093</i>	<i>\$1,146</i>	<i>\$1,147</i>

Source: ABS Census Data 2006

APPENDIX 2 - TDC PENRITH LGA JOB GROWTH BY INDUSTRY (2001-2031)

Industry	Job Growth (2001-2031)
Agriculture, forestry, fishing	1.21%
Mining	1.30%
Food industries	3.67%
Textiles, clothing, footwear	-4.87%
Wood and paper products	0.10%
Printing, publishing, recording	-0.32%
Chemicals and petroleum	3.00%
Metal products	1.22%
Non-metallic products	0.19%
Machinery, transport and equipment	1.66%
Other and undefined manufacturing	1.06%
Energy, water, sewerage	-2.08%
Construction	1.22%
Wholesaling	1.03%
Retailing	1.24%
Transport and storage	4.00%
Communications	1.18%
Finance, insurance	-0.17%
Property and business services	1.59%
Public administration and defence	1.64%
Education	0.35%
Health services	1.00%
Other community services	0.77%
Cultural and recreational services	1.40%
Accommodation, restaurants, cafes, clubs	1.17%
Personal and other services	1.83%
Unclassified	0.68%

Source: Transport Data Centre, Employment Forecasts by Industry (2001)