

# Greater Penrith to Eastern Creek (GPEC) Urban Design Study





tonkinzulaikhagreer



JMD design



# ACKNOWLEDGMENT OF COUNTRY

The Department of Planning and Environment, Tonkin Zulaikha Greer and JMD would like to acknowledge the Dharug people as the Traditional Custodians of the land of Greater Penrith Eastern Creek. We pay our respects to Elders past, present and future. We acknowledge the Country, communities and values of Aboriginal culture throughout the study area, and hope that they are reflected in the outcomes of this project.

Our team is committed to better understanding on how to reflect Country and Aboriginal values into our practice. This document is informed by On-Country training, conducted by Dharug Custodians and inputs from Aboriginal people working on this project. This document would not exist in its final form without the time, knowledge and expertise of the Indigenous representatives and traditional custodians who sharing their stories and valuable understanding of the GPEC area.

We look forward to further refining the approach to connecting with Country, community and culture as the project progresses.

A warning to any Aboriginal and Torres Strait Islander readers that this document may contain images, or name Indigenous traditional custodians that may have passed away.

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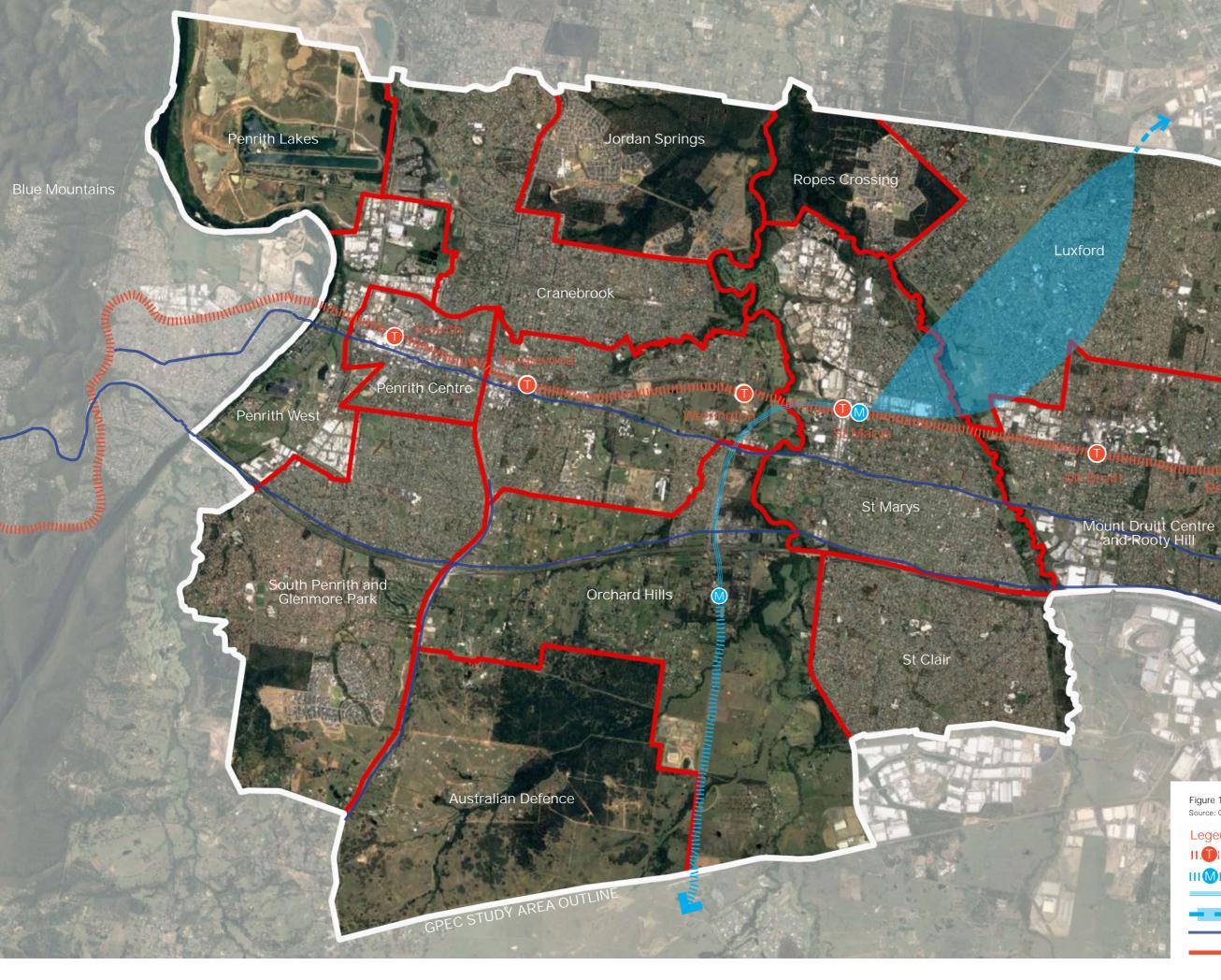
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# Western Sydney Parklands

Figure 1: Location Diagram OF GPEC Source: Google Earth with TZG overlay, 2021.

# Legend:

II []] II T2 Train line and Station locations
Future Metro line and Station locations
Future Metro line (underground)
Future Metro line (under investigation)
Major Roads
GPEC Precincts boundary

# **Executive Summary**

The Greater Penrith to Eastern Creek<br/>('GPEC') Growth Investigation Area is<br/>home to vibrant, unique communities on<br/>diverse land uses.The GPEC area's amenity is set to grow<br/>with improved connections to St Mar<br/>as a strategic centre and Penrith as a<br/>Metropolitan city, as well as more div

The area has evolved over time from rural beginnings into a significant economy in its own right. The area is poised for growth catalysed by cityshaping major infrastructure investment including the Sydney Metro Rail Project, Outer Sydney Orbital vehicle & freight corridor and the Western Sydney International (Nancy Bird Walton) Airport and the adjoining Aerotropolis.

The GPEC area's amenity is set to grow with improved connections to St Marys as a strategic centre and Penrith as a Metropolitan city, as well as more diverse and affordable housing types within the district and increased job opportunities leveraging off growth within the area.

Established green corridors of Cumberland Plain vegetation provide opportunities for enhanced green grid connections to reinforce the landscapeled vision for the Western Parkland City.

The GPEC area is made up of rich landscape and Country that underpins its identity. GPEC's future will benefit from enhanced and protected waterways, opportunities to create more green space and parklands that mediate the heat island effect whilst retaining local identity and preserving the landscape.

# Background

# **Purpose & Role of** Document

# Scope

# **Engagement Process**

The Greater Penrith to Eastern Creek (GPEC) Growth Investigation Area is identified in A Metropolis of Three Cities - Greater Sydney Region Plan (GSRP), Western City and Central City District Plans (WCDP and CCDP) as an area to investigate for regional scale change over the next 30 years. The GPEC investigation area spans approximately 18,620 hectares and connects an area bounded by the Nepean River to the west, M7 Motorway to the east, the Western Sydney Airport to the south, and residential and vegetated areas to the north. The GPEC investigation area includes land within the Penrith and Blacktown Local Government Areas. It is currently home to 254,000 people, accommodates 88,000 homes and 75,000 jobs. This large strategic area requires collaboration and coordination across all levels of government to achieve the planning aims defined in the Greater Sydney Region Plan (GSRP).

GPEC is an area of open sky and rolling hills, set amongst the flood plains and creek network of the Nepean River, and Wianamatta-South Creek, Eastern Creek and Ropes Creek, with views stretching to the Blue Mountains escarpment. There are many areas of untouched Country in GPEC, made up of waterways, green spaces and protected natural areas.

This document lays the foundation for the GPEC Strategic Framework that will be realised over the next 20-30 years. The GPEC Strategic Framework identifies strategic directions for GPEC and is key to guiding the future planning needs of the Precinct to meet its regional relevance, anticipated growth and renewal to deliver a vision to 2056. This document builds on the vision and directions of the GPEC Place-Based Infrastructure Compact (GPEC PIC) and provides a set of design principles to inform future strategic planning work for GPEC.

This document aims to:

- Prioritise the directions of local and state government agencies, by combining strategic directions, and place-based responses through the lens of spatial analysis, understanding and delivery.
- Provide a platform for collaboration with and between government agencies such as Transport for NSW, Land and Housing Corporation, Schools Infrastructure NSW, Local Council and state government and all other agencies.
- Align with regional transport plans, and recently undertaken strategic plans.
- Embed 'Connecting with Country' principles into the planning and urban design framework.
- Provide a foundation for future master planning on site that has considered stakeholder and community feedback, collaboration, local character and identity.
- Put forward a direction that will inform future densities, amenity, landscape, built form and connectivity in a holistic and integrated way.

Tonkin Zulaikha Greer and JMD design have worked to lead the project across a multi-disciplinary consultant team including:

- Aboriginal Engagement,
- Aboriginal Cultural Heritage,
- Urban and Landscape Design,
- Strategic Planning,
- Desktop Residential, Employment and Retail Feasibility, and,
- Strategic Traffic and Transport (engaged by TFNSW)

GHD and Zion. The stakeholders included: Preparation of this report has involved close collaboration amongst the consultant team, to bring - Aboriginal Housing Office together urban design, strategic planning, economic - Western Sydney University feasibility, Aboriginal heritage and infrastructure and engineering advice. - Darug Custodian Aboriginal Corporation - Kamilaroi-Yankuntjatjara Working Group The consultant team has also collaborated with and sought advice from the following stakeholders in the - Deerubbin Local Aboriginal Land Council preparation of this report: - Blacktown City Council Aboriginal Liaison

- Transport for NSW\*
- Greater Sydney Commission\*
- Penrith City Council\*
- Blacktown City Council\*
- Land and Housing Corporation\*
- Western Parkland City Authority\*
- Sydney Metro\*
- Green and Resilient Places Team, Department of Planning and Environment
- \*Infrastructure Partnerships and Agreements,

- \*Department of Planning and Environment \*Denotes membership of the GPEC Project Collaboration Group

GHD and Zion have provided holistic input and advice regarding general principles of connecting with and respecting Country. Throughout the project, the urban design and landscape teams (TZG and JMD) have worked with and the indigenous heritage team (EMM) and Indigenous Consultation team (GHD / Zion) to integrate Indigenous consultation outcomes. A virtual on Country training, facilitated by Dharug Traditional Custodians was undertaken, plus a series of internal workshops with DPIE and other technical teams allowed engagement with feedback received from local Aboriginal communities during the Aboriginal Engagement consultation that was undertaken by



# GPEC Then and Now

P.0.

PROSPECT RESERVOIR 20 M. TO SYDNEY

Prospect

SYDNE

SMITHF

This section presents research that has been undertaken into the rich and varied history of the GPEC area, and summarises key historic themes that are important to be recognised in the future of the GPEC area.

CROSS KOADS

Glenfreld

# 1.1. Historic Context

# 1.1.1 Aboriginal **Archaeology and History**

## 40,000 Years of History

The GPEC area is located within the traditional land of the inland Darug (or Dharug) people who have been the traditional land owners and custodians of Country from the Blue Mountains to the coast and extended from Wisemans Ferry and the Nepean River at Appin. The Dharug language group were made up of fourteen clans. It is believed that the original inhabitants of Wianamatta-South Creek were the Gomerrigal-Tongarra clan. Aboriginal People, the first people of this area, have been evidenced to occupy the region for more than 40,000 years through the dating of Aboriginal artefacts found at Cranebrook Terrace.

The Darug people moved across Country with the seasons. They settled on the high ground and accessed water from the many creeks, billabongs and wetlands across the Cumberland Plain. These water sources also provided food which included fish, shellfish, eels, waterbirds and allowed the Darug people to hunt the animals that were drawn to the water. The stones from the creeks and riverbeds, such as silcrete, quartz, quartzite and chert, were made into weapons, knives and utensils. These stone tools were generally discarded when they broke, so uncovering the remnants of these in different locations reveal how the Darug people used and travelled across the Country, their migration routes and potential trade patterns.

Darug connections to Country also include the stories, myths, customs, traditions and social practices which were passed down by the elders. Most of these connections were lost as a result of the European colonisation (invasion) in 1788, which irrevocably changed the way of life for the Aboriginal population. The early British expeditions provided valuable observations of pre-contact Aboriginal occupation, however, they also introduced disease, smallpox, violence and competition for resources which culminated in the Aboriginal and European conflict at Prospect Hill.

Sources:

"St Marys," Penrith City Local History, accessed June 15, 2021, https://penrithhistory. com/st-marys/.

- Australian Museum Consulting, Environmental survey of Commonwealth land at Badgerys Creek: Aboriginal Heritage, (Sydney: SMEC Australia, October 2014), 16.

- Val Attenbrow, Sydney's Aboriginal Past, 2nd edition, (Sydney: University of New South Wales Press Ltd, 2010), 16.

Curio Projects, "Aboriginal Connections," Blacktown City Council, accessed June 15, 2021, https://www.blacktown.nsw.gov.au/About-Council/Our-city/Blacktown-Memories/Our-history-and-heritage/Aboriginal-heritage/Aboriginal-Connections.

- "Aboriginal Heritage," Western Sydney Parklands, accessed June 15, 2021, https://www. westernsydneyparklands.com.au/about-us/our-story/aboriginal-heritage/.



Figure 2: "Pimbloy: Native of New Holland in a canoe of that country." Engraving by Samuel John Neele believed to be the only known depiction of Pemulwuy Source: State Library of Victoria



Figure 3: Aboriginal Firestone found at Castlereagh. Source: Penrith City Library, Warren Pinfold collection



Figure 4: Stone Utensils found in Emu Plains Source: Penrith City Library, Normal Hunter Collection



Figure 5: By water to Parramatta; with a distant view of the western mountains, taken from the Windmill-hill at Sydney, 25 May 1798, J. Heath. Source: State Library of NSW

#### The "Deep time" archaeological record

The banks of the Hawkesbury-Nepean River formed a key focus of Aboriginal occupation in the region. Some of the earliest evidence for occupation in the Sydney Region dating back ~36,000 years is preserved within deep sand deposits of the Cranebrook Formation along the river's edge.

As well as utilising the natural resources of the river, Aboriginal populations focused on the resources available in deposits of Quaternary alluvium along the banks of Wianamatta-South Creek, Ropes Creek, Blaxland Creek and Eastern Creek. This included the collection of local gravels from these creek beds for the production of stone implements and tools.

The region contains several other localised rock outcrops that were quarried to produce stone tools, including Rickabys Creek gravels, St Marys Formation silcretes and other volcanic materials. The Cranebrook formations are of much geological significance, particularly the St Marys formation.

The AHIMS sites recorded in the region are almost exclusively stone artefact sites that have been recorded in close proximity to major watercourses and known rock outcrops. Sites are larger, more complex and more densely clustered along permanent creek and river lines than ephemeral drainage lines. These sites often date to within the past 5,000 years.

Ridgelines were also key movement corridors for Aboriginal people and enabled good visibility of the surrounding landscape. Two broad low ridgelines along Mulgoa Road and The Northern Road have been identified as being culturally significant, and regional archaeological models suggest that there may be Aboriginal sites located along the 'spines' of these important transitory corridors.

A large proportion of the GPEC area has been subjected to development impacts from historical sand mining activities, road and rail infrastructure, and residential and industrial development. Further investigation in accordance with Heritage NSW guidelines and procedures should be undertaken to inform detail precinct design.

#### Aboriginal pre- and post-contact history

The region has a rich cultural history spanning the preand post-contact period, and today there is a strong sense of community and contemporary connection to the urban landscape by local Aboriginal people.

The documented historical ethnographic research relates back to important historical themes that investigate traditional Aboriginal subsistence strategies and the utilization of the region's rich natural resources, resistance to European settlement and frontier violence, working and thriving in a Eurocentric society, assimilation, dispossession and loss, and maintaining a contemporary connection to the landscape.

The local Aboriginal people spoke the Darug language, and several clan groups are recorded within or near to the site, including the Mulgowi, the Wandeandegal and/or Boorooberongal, the Gomerigal-Tongarra, and Wawarrawarri. They utilized the plentiful resources of Dyarubbin (known as the Hawkesbury), creeks and surrounding forests; travelling across the landscape along defined trackways to engage in trade and fulfil kinship and ceremonial responsibilities. Clans had certain rights of access to important natural resources such as yam patches, river gravels and silcrete, and a responsibility to manage these resources for future generations.

Early European settlement along the banks of the Hawkesbury and Wianamatta-South Creek blocked off traditional access to hunting grounds and yam patches, and this was occasionally met with retaliatory action on both sides, resulting in casualties of Aboriginal men, women and children, and European settlers.

Not all interactions were negative, for example, and some settlers allowed Darug people to camp on, meet on and fulfil ceremonial obligations on these early estates. Others found work as guides, trackers and workers in the historical period.

The first land grant to an Aboriginal person was made on the edge of the GPEC area, to Colebee and Nurragingy in 1819. This site is now partly developed with housing, in the suburb of Colebee.

As European settlement expanded, Darug clans were forced to relocate onto reserves and missions in the regions such as the Blacktown Native Institute, Castlereagh Common and the Mulgoa Mission.

#### Indigenous Culture and Values

The ridge lines and rivers are key areas still holding Indigenous significance today.

The waterways are comprised of alluvial sands deposits and are not only a key archaeological refuge for people of past but also a ceremonial and dreaming area.

Clusters of Indigenous culture exist at the edge of the GPEC study area, notably at and around the Blacktown Native Institute site in the north east corner of GPEC.

#### Contemporary Aboriginal connections

Mount Druitt, St Marys and Penrith were identified as important places of Aboriginal cultural revival and contemporary connection, there being a strong Aboriginal presence in the local community.

The community felt that prior to urbanisation in the area, the Cumberland Plain would have had numerous historically unmapped clay plans, waterholes, and lagoons, providing rich places for natural resource exploitation.

An Aboriginal man known as Black Santa, Sydney "Doc" Cunningham, was of particular significance, being a local personality who frequented St Marys Station and Elizabeth Street, and established the Western Districts Foundation for Aboriginal Affairs on Queen Street.

Aboriginal community members drew attention to the significance of the creeks and ridgelines and their importance not only as occupation sites but also as transportation and movement corridors.

Fishing was a common activity for Aboriginal people and took place along all waterways in the area; however, this activity has slowly dropped off since the mid-1950s, as land was purchased, urbanised, and privatised over time.

Community members proposed a shift away from Colonial-centric naming conventions and advocated for co-naming of important places, public parks, and localities in local Aboriginal language.

#### Sources:

- EMM Desktop Aboriginal Cultural Heritage Assessment.

 "St Marys," Penrith City Local History, accessed June 15, 2021, https://penrithhistory.com/st-marys/.

- Australian Museum Consulting, Environmental survey of Commonwealth land at Badgerys Creek: Aboriginal Heritage, (Sydney: SMEC Australia, October 2014), 16.

- Val Attenbrow, Sydney's Aboriginal Past, 2nd edition, (Sydney: University of New South Wales Press Ltd, 2010), 16.

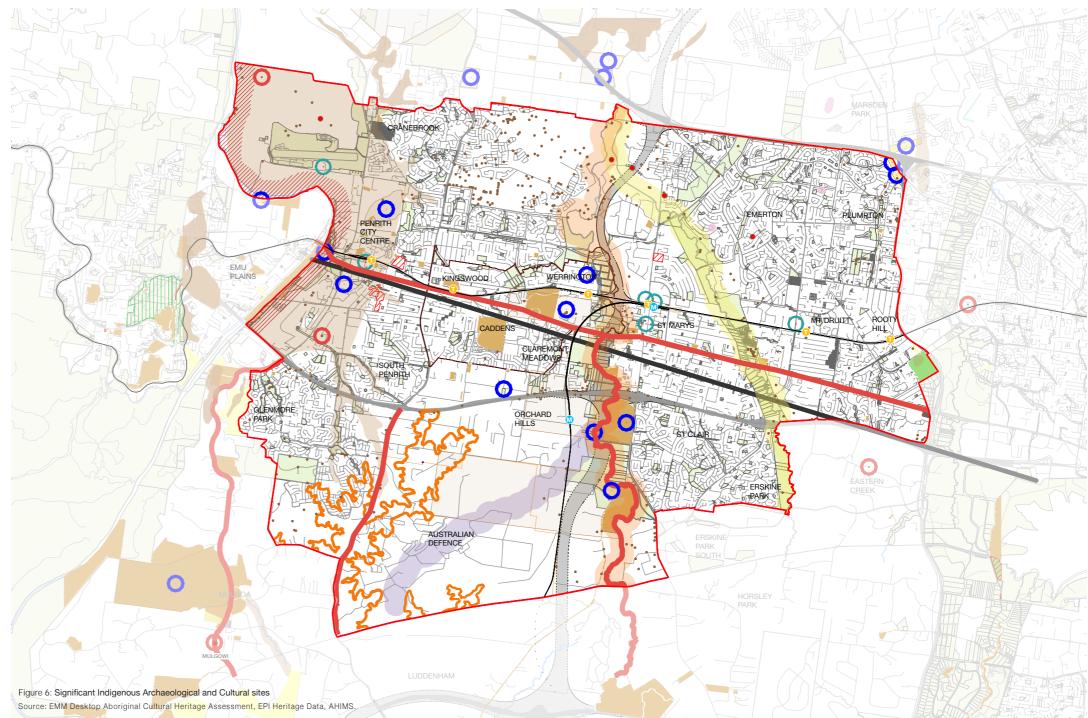
 Curio Projects, "Aboriginal Connections," Blacktown City Council, accessed June 15, 2021, https://www.blacktown.nsw.gov. au/About-Council/Our-city/Blacktown-Memories/Our-history-andheritage/Aboriginal-heritage/Aboriginal-Connections.

 "Aboriginal Heritage," Western Sydney Parklands, accessed June 15, 2021, https://www.westernsydneyparklands.com.au/about-us/ourstory/aboriginal-heritage/. GPEC Then and Now

# **1.1.2 Significant Historic Sites**

Various historic sites are mapped on the adjacent Figure 6, showing the rich and diverse history of the GPEC area, its many significant sites and important features to be retained, protected and preserved for future generations.

Contemporary Values Areas identified in St Marys include the main street and Bora Rings, both of which are meeting places for Aboriginal people in the area today.



#### Legend:

CONSERVATION AREA - GENERAL
ABORIGINAL PLACE OF HERITAGE SIGNIFICANCE
CONSERVATION AREA - LANDSCAPE
HERITAGE ITEM - GENERAL
ABORIGINAL OBJECT
HERITAGE ITEM - ARCHAEOLOGICAL
HERITAGE ITEM - LANDSCAPE
LOCAL HERITAGE - GENERAL

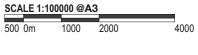
AREAS OF ARCHEOLOGICAL INTEREST ROPES CREEK CORRIDOR SOUTH CREEK CORRIDOR BLAXLAND CREEK CORRIDOR ESTATE AND LAGOON BOUNDARIES HAWKESBURY NEPEAN CORRIDOR ABORIGINAL TRAVELLING ROUTES NORTHERN RIDGE LINES

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- EARLY EUROPEAN SETTLER ROUTES C ETHNOGRAPHIC ENCOUNTER O CONTEMPORARY VALUES AREAS O RECORDED CLANS / TRIBE
- AHIMS
- NOTABLE AHIMS SITE

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# **1.1.3 Historic Development**

The following maps track historic development and significant changes in Country, landscape and the built urban fabric over time, since mapped European record was undertaken.



Figure 7: Map of the country between Penrith, Camden and Liverpool prepared for use at staff ride Sept. 1904, New South Wales Source: National Library of Australia, http://nla.gov.au/nla.obj-341956705

#### A rich landscape with key trade routes

This maps shows early documentation of the ridges and hilltops which make up a key component of GPEC's Country. The maps also highlights the initial road structure pattern and alignment of major roads such as Queen Street, Mamre Road, Great Northern Road, Luddenham Road and the Great Western Highway that was established by early settlers. Mamre House, Michinbury Vineyard are shown as key land holdings within the area. This documentation shows a relationship between significant water courses such as the Blaxlands Creek and Claremont Creek with the corresponding ridgelines within Orchard Hills, Erskine Park and South Penrith.

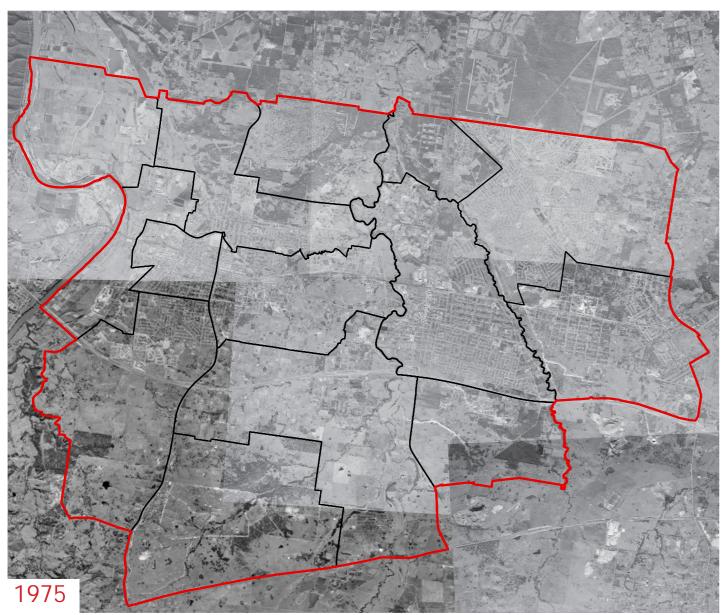
The Victoria Bridge crossing at the Nepean River is present at this time, and established a connection to the Blue Mountain region and West NSW further afar. Figure 8: Map of the Municipality of Penrith, 1950's Source: National Library of Australia, http://nla.gov.au/nla.obj-1804666686

#### Evolving Suburban Urban Structure

The street grid as seen today within Penrith, St Marys, Werrington and Kingswood township is largely established by the time this map was made. Denser development occurs primarily along the Great Western Railway, Northern Road and the Great Western Highway indicating these roads connecting function for local townships. This map reveals a grid structure township was planned for Claremont but not realised. Other major developments visible are the RAAF armament depot (now the Defence Establishment Orchard Hills), the Magazine Area and the King's School in Orchard Hills. Early Industrial development is also visible in north St Marys, with a circuit system of roads having been created. Penrith raceway can be seen located north of the Penrith township.

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Figure 9: Historical Imagery Mosaic, 1975 Source: Historical Imagery Viewer, NSW Government, Spatial Collaboration Portal

## Pastoral lands with established and growing Suburban pockets

This Aerial photo shows that GPEC's landscape condition outside townships was historically consisting of primarily rural use where large area of cleared land were likely used for agricultural purposes. This aerial photograph shows a small amount of vegetated tree canopy and remnant forest remained in 1975 along the creek corridors. Larger areas of remnant bushland can be seen around today's Glenmore Park South, Australian Defence, Marsden Park and Wianamatta Regional Park. Suburban and residential development had occurred on local roads between the established grid street network, spreading north-south from the highway and rail corridor.

The western motorway had been developed with a new bridge over the Nepean River in the same location as the former. Early cul-de-sac style suburban structure has appeared around Whalan, Mt Druitt through to Wilmot, Shalvey and Hassal Grove.

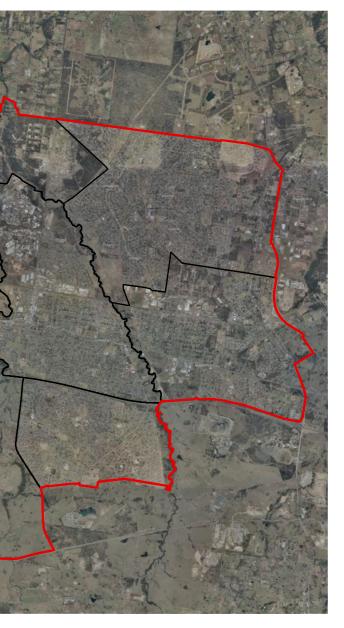
Figure 10: Historical Imagery Mosaic, 1991 Source: Historical Imagery Viewer, NSW Government, Spatial Collaboration Portal

## Urban Sprawl contained by Landscape Buffers

Between 1975 and 1991, further urbanisation occurred, and this aerial image reveals the newer cul-de-sac suburbs such as that of Claremont Meadows that had appeared on the fringes of the GPEC area. This aerial also reveals that Orchard Hills has remained largely as rural use, with remnant bushland areas further re-establishing and providing increased tree canopy across the area particularly at the Australian Defence Site.

Wianamatta-South Creek and Ropes Creek corridor, established in 1976 as flood plain recreational open space can be clearly seen with small clusters of tree canopy re-establishing in what was previously agricultural or cleared land.

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# 1.1.4 Built Heritage

# Transport and Road infrastructure - Forging connections to Sydney and beyond

The Great Western Highway was a traditional movement corridor from the east through the mountains by Aboriginal peoples, formalised by non indigenous peoples.

The Western Road, as it was known originally by European Settles, was one of three Great Roads expanding the colony beyond the Sydney Basin. It began as a three-metre-wide overland track connecting Sydney to Parramatta and built with convict labour. The track was later widened for carriages and opened for traffic in 1810. In the search for arable land, Governor Macquarie commissioned Blaxland, Lawson and Wentworth who succeeded in finding a safe route through the Blue Mountains in 1813. The route was extended to Bathurst by Surveyor George Evans with William Cox later commissioned to construct the new road.

In October 1815, the completed route from Parramatta to Bathurst was inspected by Governor Macquarie and named the Great Western Road, which would be maintained and repaired by the Colonial Government. The Great Western Road was the main trade and access route connecting the Colony with the fertile lands of the Cumberland Plains and beyond the Blue Mountains. The formation of the Great Western Road was crucial for the survival of the growing colony and the catalyst for development of the land along its route.

Similarly, the Great Western Railway aided the industrial expansion across the Colony with railway stations key to the development of rural settlements. The first extension of the Great Western Railway line was completed in 1860 from Parramatta to Blacktown. The railway station at Wianamatta-South Creek, now St Marys, was opened in 1862 and a year later, the Great Western Railway terminated at the banks of the Nepean River at Penrith. The town of Penrith was transformed into an interchange for the western line in the years preceding the railway expansion into the Blue Mountains. Cobb and Company ran two coaches daily from Penrith and local business flourished with the arrival and departure of coaches and trains.

The first bridge over the Nepean River was the Victoria Bridge near Penrith and was completed in December 1855. Prior to this, punts were used to transport people and goods across the river. The bridge was designed by Engineer-in-Chief of Railways (NSW), John Whitton to carry two railway tracks however, it carried both rail and road traffic until a dedicated rail bridge was opened in 1907. The bridge was an important link for both the Great Western Road and Railway. The line at Penrith linked to Lapstone Zig Zag and continued over the Blue Mountains alongside the original route discovered by Blaxland, Lawson and Wentworth in 1813.

#### Sources:

 - "Wianamatta-South Creek Bridge (Eastbound)," "Former Great Western Highway Alignment," and "Victoria Bridge," New South Wales State Heritage Register, Heritage NSW

- E.C. Rowland, The Story of the NSW Railways, Royal Australian Historical Society (1954) Vol. XL, Part V.



Figure 11: View of the Victoria Bridge over the Nepean River at Penrith, ca. 1900-1929 Source: State Library of NSW, File no: FL1060530



Figure 12: View of the railway corridor at Penrith Station, c1905 Source: State Library of NSW



Figure 13: Aerial view of Penrith looking east by Milton Kent. Penrith Speedway and Railway Station visible on the left. ca. 1960s Source: State Library of NSW, Mitchell Library, File no: FL8808619



Figure 14: View of the Nepean River crossing at Penrith, c1952. Source: National Library of Australia

#### Pastoral expansion at Orchard Hills

The transition from British penal colony to free settlement signalled a period of rapid economic development in Australia in the 1820s and 1830s. The transfer of convict work gangs from the urban centres to rural areas and the rise of private enterprises into industrial and agricultural development fuelled pastoral expansion into the Cumberland Plains. These were commonly associated with the subdivision of large estates like Orchard Hills, which was formed from parts of the Frogmore and York Estates. The estates in this region were mainly subdivided into orchards and vineyards that developed into rural communities. The Mount Hope Methodist Church was built in 1904 followed by the York Estate Public School in 1910. The area was officially named as Orchard Hills by its residents at a meeting in October 1910.

The rolling hills and creeks at Orchard Hills provided the ideal climate and soil for growing stone and citrus fruits, which attracted many farming families to the region. The Calvert family produced peas and fruit at their property on Homestead Road. While at Prestonville and Mackenzie's Paddock, the Morris and Earley families established orchards and produce fields.

The rural landscape also proved a prosperous region for livestock farming. In 1804 Reverend Samuel Marsden received the grant of 1030 acres at Wianamatta-South Creek where he established an experimental farm he named Mamre, from Genesis 13:18. Marsden initially experimented with sheep breeding to produce good meat and wool but later concentrated on the production of fine wool. In 1807 he returned to England to present a woven suit of Mamre wool to King George III and was rewarded with five Spanish Merino ewes and lambs from the Royal Flock. At the time of his death in 1838, Mamre had grown to approximately 1500 acres. The Mamre Homestead, which was constructed in the 1820s as a country cottage for overseers of the farm, stands on the remnants of the original property. It was purchased in 1984 by the Department of Environment and Planning and leased to The Sisters of Mercy who re-established it as a working farm with Egelabra Merinos descended from Marsden's flocks.

Sources:

- "Penrith City Local History," https://penrithhistory.com/orchard-hills/ and

- "Mamre - Homestead" & "Mamre," New South Wales State Heritage Register, Heritage NSW.



Figure 15: Spraying the vines at Orchard Hills, 1957. Source: Penrith City Library



Figure 16: View of vineyards at Orchard Hills, 1973. Source: Penrith City Library



Figure 17: Orchards and crops at Orchard Hills, 1985. Source: Penrith City Library



Figure 18: Mamre House and Farm, Orchard Hills. Source: Blacktown Memories, Les Tod

#### St Marys: Roadside village to rural industrial centre

St Marys was originally part of 242 hectares granted to Governor William Bligh's daughter, Mary Putland in 1806. She received a further 426 acres following her marriage to Maurice O'Connell and the combined grants at Wianamatta-South Creek were later known as the O'Connell Estates. Settlement of the area, which at this time was known as 'Wianamatta-South Creek,' began with the partial subdivision of the O'Connell Estates into town allotments and four- and twenty-hectare fields. The town was later renamed 'St Marys' after the Parish of St Mary Magdalene church on the Great Western Highway.

The settlement had developed into a small roadside village by the 1850s with the town centre consisting of a butcher, ironmonger and grocer, post office and hotel. The construction of the railway station in 1863 brought the first of the local industries to St Marys. These initially focused on supporting the western expansion of the railway but soon included tanneries, sawmills and coach and wagon works. The largest of the tanneries were owned by Andrew Thompson and Martin Brell. Bennett's Wheelwright and blacksmith workshops were established on Queen Street in 1875 by George with additional workshops built by his brother James closer to the Great Western Highway. The high cost of transporting goods and declining supplies of timber saw most of the tanneries relocated and no new wagons built after 1934. By the end of World War II, most of the tanneries in St Marys had also closed.

The second wave of expansion at St Marys followed the establishment of the large munitions depot on the northern side of the railway line; the complex later formed part of St Marys Industrial Estate. The munitions factory provided over three thousand jobs to the area, and it sustained these high levels of employment after the war. This steady income triggered a surge of residential development, which changed the character of St Marys. During the end of the nineteenth century, the town centre moved from the Great Western Highway to Queen Street and the area transformed as part of general redevelopment and road-widening programmes.

Sources:

- "Establishment of the Village of St Marys," Penrith City Local History, https://penrithhistory. com/industries/st-marys-industrial-heritage-study/establishment-of-the-village-of-st-marys/

- "The Establishment of the Tanning Industry in the St Marys District," Penrith City Local History, https://penrithhistory.com/the-establishment-of-the-tanning-industry-in-the-st-marys-district/

- "Wianamatta-South Creek Bridge (Eastbound)," New South Wales State Heritage Register, Heritage NSW



Figure 19: George T. Bennett's Wagon Works at St Marys c1910. Source: Penrith City Library



Figure 20: Illustration of Thompson's St Marys Tannery at Saddington Street c1906. Source: Penrith City Library



Figure 21: Aerial photo of St Marys Station with the munitions factory complex to the north. Source: Penrith City Library

# 1.2. GPEC Today

# **1.2.1 GPEC's Precincts**

#### Understanding the existing character of GPEC's Precincts

For this Urban Design Study, the GPEC area has been broken into precincts that are defined by their unique character and delineated by the subtle differences between their existing uses, urban structure and landscape characteristics. Each precinct's character is summarised below.

#### Residential precincts with low scale, low density housing

Comprising Cranebrook, Jordan Springs, Ropes Crossing, South Penrith / Glenmore Park, St Clair and Luxford Precincts, these areas have mostly single storey, freestanding residential single housing with little commercial activity outside small, localised town centres. Older suburbs benefit from larger yards and landscape setbacks from street edges, where newer suburbs are more tightly planned, with darker coloured roofs, small backyards and little landscaping or tree canopy.

## Mt Druitt and Rooty Hill - Mixed Use with a residential

#### focus

The Mount Druitt and Rooty Hill area's character is defined by an established town centre containing education, hospital and retail / commercial areas that serve the surrounding residential area. The existing low rise residential is of mixed quality and contains interspersed affordable and social housing. These precincts are characterised by wide streets with little activity, primarily located within cul-de-sac suburbs that are enclaves unto themselves.

#### Australian Defence Special Purpose area underpinned by

#### landscape

This precinct, located east of the Northern Road, contains the Australian Defence Establishment lands as well as some rural and open space area. This area contains inaccessible remnant bushland and active defence training uses.

#### Penrith Lakes Tourism and Employment

Penrith Lakes is part natural asset, part 'adventure destination' and links the Blue Mountains region to the Nepean River waterfront. The precinct holds the Sydney International Regatta Centre, Whitewater Stadium and associated facilities including a pedestrian link across the Nepean River. The precinct is based in recreational activities, including cafes and restaurants focused on water-based activities. There is currently no residential development within the precinct. The Penrith Lakes Development Control Plan Stage 1 was finalised in 2021 and facilitates tourism and employment on zoned land within Penrith Lakes.



GPEC Today

## Orchard Hills - Rural large lots with significant existing

#### pockets of landscape biodiversity

Most of the Orchard Hills precinct contains large (1-2ha plus) rural lots. It is surrounded by established and developing suburban areas and contains remnant bushland and private small scale agricultural uses. The area has few connecting roads which operate as thorough-fares for residents and largely consists of private rural roads or lesser travelled, single lane, local roads.

# Penrith and St Marys Centres - Mixed Use with an

## Employment focus

The areas of Penrith West, Penrith City Centre and St Marys are characterised by established town centres that are pedestrian friendly, with safe, active and maintained public domain. Each area contains a vibrant, mixed cultural character 'high-street' comprised of one or two storey retail frontages, as typified by the historical grid layout street structure. In North St Marys and Penrith West pockets of low-rise, bulky goods, large item warehouses and industrial uses exist usually within proximity to road or train infrastructure. The highway corridor slices through these precincts creating disconnected sub-precincts.

# Kingswood and Werrington - A Health and Education focus

An area of varied character, bounded by the Wianamatta-South Creek corridor to the east, and anchored by the growing Nepean Hospital in the west, the Kingswood and Werrington Precinct contains large yet dispersed institutional-owned land that reads as an area unto itself. Large portions of undeveloped open space are located within the institutional campuses of Western Sydney University (WSU) and TAFE and provide a break between in established residential areas at Kingswood and Werrington Stations and newer single dwelling residential development to the south within Caddens. The area contains various community, public school and civic institutions further differentiating its character from adjacent areas. The landscape character varies - from prominent ridgelines and hilltops located within WSU's campuses to the flatter, flood prone areas of Wianamatta-South Creek corridor containing existing recreational and industrial uses. The Great Western Highway is largely devoid of activity and cuts the precincts in half due to heavy vehicle traffic.



GPEC Today

# **1.2.2 GPEC's Community**

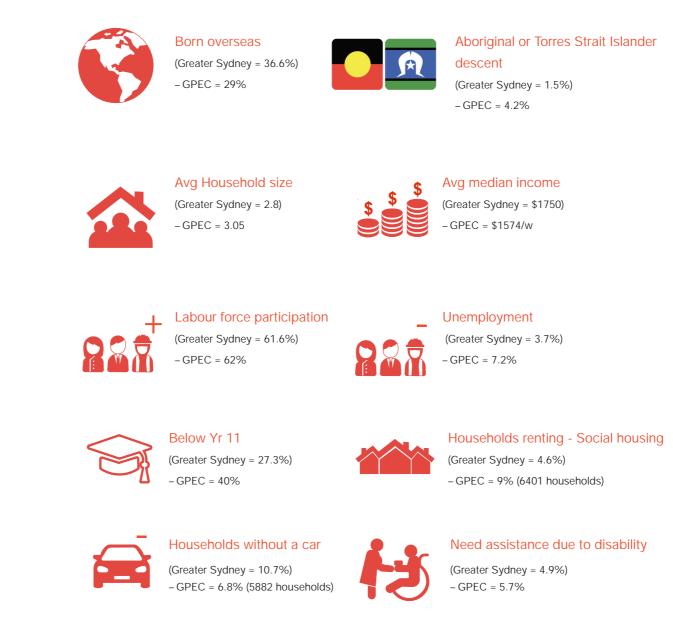
GPEC is home to a young and diverse community of over 250,000 people. In 2016, almost 30% of GPEC residents were born overseas, and at just under 34 years of age, the median age of GPEC residents is over 2 years younger than the rest of Greater Sydney.

Whilst the GPEC community is culturally diverse, it is also socio-economically diverse. A significant number of GPEC residents face severe and intergenerational socio-economic disadvantage. Analysis of the Socio-Economic Indexes for Areas (SEIFA) Index of Disadvantage shows that compared to most other areas of Greater Sydney, a significant portion of the Luxford precinct as well as parts of Cranebrook, St Marys and Kingswood face relative socio-economic disadvantage. The most disadvantaged communities exist where there is a high concentration of social housing. Residents in some of GPEC's disadvantaged communities currently experience long commute times and unreliable connections to the public transport network. Limited transport opportunities can prevent access to educational and employment opportunities, and limit accessibility for residents with physical and cognitive disabilities.

At the same time, many parts of GPEC including Glenmore Park, Caddens and Claremont Meadows have a much higher SEIFA index score, indicating that broadly, these areas enjoy many more advantages than areas with lower SEIFA index scores.

The statistics included opposite provide a further snapshot of the GPEC community at the 2016 Census. At the time of writing, the 2021 Census results were not yet released. Future detailed planning for areas within GPEC will look more closely at the existing and forecast demographic profile so that the right types and amount of services and facilities are planned for.

# **1.2.3 GPEC's Demographic Profile**



GPEC Today



Median age (Greater Sydney = 36) - GPEC = 33.8yrs



# Low income households

(<\$650/w) (Greater Sydney = 15%) - GPEC = 14.4%



# Uni Education

(Greater Sydney = 28.3%) - GPEC = 14%



# Travel to work by car

(Greater Sydney = 56.7%) - GPEC = 71% (81,270 people)

# 2.0 Strategic Planning Context

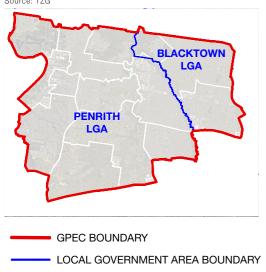
This section summarises existing strategic planning work at both state and local government level that relates to GPEC. It identifies the strategic significance of the GPEC investigation area.

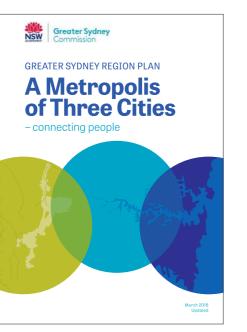
# 2.2.1 Strategic Planning Context

Forming part of the initial Western Sydney Place-Based Infrastructure Compact (PIC) area, Greater Penrith to Eastern Creek (GPEC) was identified as a future investigation area in the Greater Sydney Region Plan due to its unique position to capitalise on a once-in-a-generation series of economic, infrastructure and strategic initiatives anchoring the Central River City and Western Parkland City. GPEC encompasses approximately 19,000 hectares of land within Penrith and Blacktown local government areas (LGA) and is currently home to 254,000 people. and supports 75,000 jobs. Bounded by the Nepean River to the west and the M7 Motorway to the east, GPEC also provides a link between the North West Growth Area and Western Sydney Aerotropolis Growth Area. A small area in the south-east of GPEC also overlaps with the Western Sydney Employment Area. Current key planning strategies related to the GPEC investigation area, include:

- A Metropolis of Three Cities Greater Sydney Regional Plan (GSC, 2018)
- Western Parkland City and Central City District Plan (GSC, 2018)
- The Western Sydney Place Based Infrastructure Compact (GSC, 2020)
- Blacktown City Council Local Strategic Planning Statement (Blacktown City Council, 2020)
- Penrith City Council Local Strategic Planning Statement (Penrith City Council, 2020)
- Blacktown Local Housing Strategy (Blacktown City Council, 2020)
- Penrith Local Housing Strategy (Penrith City Council, 2022)

Figure 22: Key plan of LGAs within GPEC Source: TZG





State and Regional Plans



# A Metropolis of Three Cities - The Greater Sydney Region Plan

The Greater Sydney Region Plan (the region plan) guides integrated land use planning and infrastructure delivery over the next 20 years, with a long-term vision extending 40 years. The Plan seeks to reposition Sydney as a metropolis of three cities – comprising the Eastern Harbour City, Central River City and Western Parkland City, aiming to shape how land use planning and infrastructure is integrated to deliver a 30-minute city.

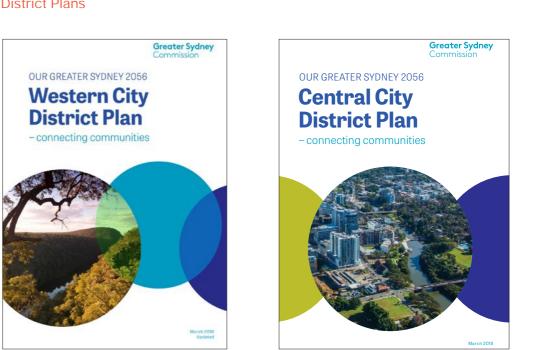
The GPEC investigation area is located across both the Western Parkland City and Central River City and is specifically identified by the region plan as a future investigation area that will support growth in appropriate locations and contribute to a connected, vibrant Western Parkland City with more homes, jobs, services, social infrastructure and open space. Such opportunities exist through potential land release areas and urban renewal in association with investment in transport infrastructure connecting the Western Economic Corridor.

# Future Transport Strategy 2056 and Greater Sydney Services and Infrastructure Plan

The Future Transport Strategy 2056 sets the strategic direction for transport in NSW establishing a vision and guiding principles to shape how transport network will evolve over the next 40 years. Supporting the Future Transport Strategy 2056, the Greater Sydney Services and Infrastructure Plan establishes specific outcomes transport customers in Greater Sydney can expect and identifies the policy, service and infrastructure initiatives. Key initiatives include potential public transport corridors to enhance connectivity within and to the Western Parkland City, such as:

- The Sydney Metro Airport line through the Western Parkland City (St Marys to Western Sydney Airport-Badgerys Creek Aerotropolis) to enable more people in the west to access jobs and services within 30 minutes and help shape sustainable growth of the area
- St Marys to Cudgegong Road Rail link which will potentially connect to Metro Northwest at Tallawong.

## **District Plans**



# Western Parkland City and Central City District Plan (2018)

The Western Parkland City and Central River City District Plans also identify GPEC as an urban investigation area as part of a structured approach to managing the long-term growth of Greater Sydney, where land use is integrated with major transport corridors. This specifically envisages GPEC's role as a growth area for Western Sydney as it leverages on the benefits of north-south transport corridors such as the North South Rail Link and potential extensions and the Outer Sydney Orbital.



The following opportunities are outlined to guide the planning for the investigation area:

- Create opportunities for renewal and new land release, in particular opportunities arising from the North South Rail Link from St Marys to the Western Sydney Airport and Badgerys Creek Aerotropolis.
- Grow and strengthen the metropolitan cluster by developing key activity nodes, including Penrith CBD, the Penrith health and education precinct as well as the centres of St Marys, Mount Druitt and Rooty Hill.
- Capitalise on the benefits of potential development and expansion of health, education or other social infrastructure in these key activity nodes.
- Include strategies to promote tourism within the region that can capitalise on its natural and recreational assets along the Wianamatta-South Creek Corridor and Penrith Lakes.
- Enhance connections to the Western Sydney Parkland's Green Grid to the Western Sydney Parklands and develop the Wianamatta-South Creek parkland corridor.

#### Local Plans



LOCAL STRATEGIC PLANNING **STATEMENT** PLANNING FOR A BRIGHTER FUTURE PENRITH CITY COUNCIL

# Penrith City Council Local Strategic Planning Statement (LSPS) (2020)

The Penrith Local Strategic Planning Statement (LSPS) outline Penrith's economic, social and environmental land use needs over the next 20 years. The LSPS identifies Penrith as a Metropolitan City for the Western Parkland city and St Marys as a Strategic Centre. New city-shaping transport initiatives such as the North South Rail Link; and The GPEC Area, identified for its potential to capitalise on significant transport and infrastructure investment.

The LSPS has identified specific planning priorities that will support growth in the GPEC area and include:

- 1 Establishing a connected green and blue grid a network of waterways, bushland, urban tree canopy, parks and other open spaces.
- 2 Building new city-shaping infrastructure which includes the new North South Rail Link from St Marys to the Western Sydney Aerotropolis.
- 3 Deliver new housing in the form of mixed-use and high density residential developments in Penrith City Centre, St Marys Town Centre and around stations on the Western Rail Line and the Sydney Metro Western Sydney Airport Line.

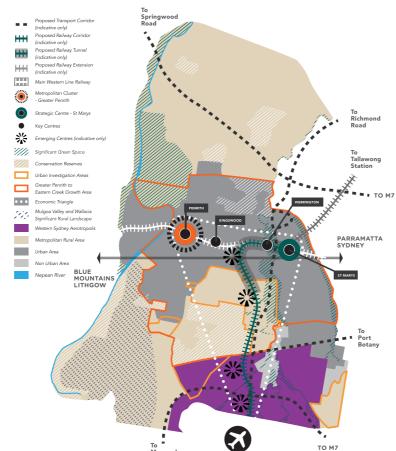


Figure 23: Map 2 Structure plan - Penrith Local Council Source: pp.21, Penrith Local Strategic Planning Statement 2020

- 4 Explore the provision of more housing in the statenominated Urban Investigation Area of Orchard Hills which will be serviced by the Sydney Metro Western Sydney Airport Line.
- 5 Enhance connectivity throughout the Western Parkland City and provide better access to jobs and services by supporting the delivery of the North South Rail Link.
- 6 Develop Penrith's economic triangle by strengthening the anchors of the east-west economic corridor between Penrith and St Marys, as well as leveraging growth from the North South Rail Link from St Marys.



# Blacktown City Council Local Strategic Planning Statement (LSPS) (2020)

The Blacktown Local Strategic Planning Statement (LSPS) sets out a 20-year vision for the future of Blacktown city as it grows and changes. The LSPS has identified the Mount Druitt precinct as a significant growth area that will emerge around the Western Sydney Airport and Aerotropolis, serviced by the proposed Sydney Metro Extension. Mount Druitt Strategic centre is the retail and commercial centre for the Greater Mount Druitt area and a hub for essential social services for Western Sydney. The Blacktown LSPS also recognises the potential for the planned Sydney Metro extension from St Marys to Schofields to include stations in Greater Mount Druitt that would catalyse social change and growth.

To achieve the objectives of high amenity, enhanced

connectivity across precincts and more diversity in

future growth area will need to address the following:

providing affordable housing in these precincts.

employment opportunities, housing and services, the GPEC

1 Provide more housing and choice that has better access

to jobs, services and public transport, including Mount

Druitt and Rooty Hill and investigating the feasibility of

2 Increase tree canopy coverage and extend Green Grid

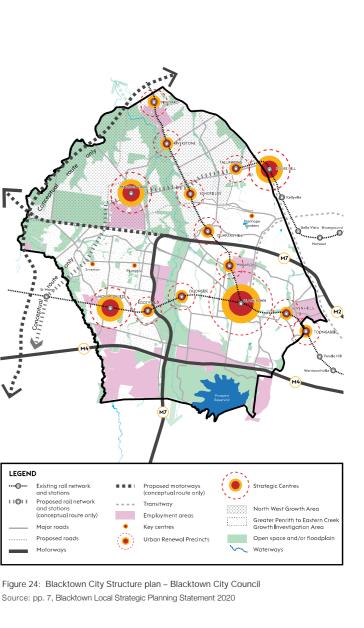
along Eastern Creek to connect with South Creek.

connections such as the Western Sydney Parklands north

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1E

- 3 Leverage growth around existing and future new rail and metro stations.
- Marsden Park.
  - services.



- 4 Deliver integrated land use and transport planning and a 30-minute city through exploration of a potential Sydney Metro extension in the Mount Druitt Precinct.
- 5 Improve connections to jobs in the Western Sydney Employment Area, Western Sydney Airport and
- 6 Create better access and movement around the centre and reinforce the centre as a hub for social support

# The Western Sydney Place Based Infrastructure Compact (2020)

The Western Sydney Place Based Infrastructure Compact (PIC) Program seeks to set a clear pathway to create dynamic places in the Western Parkland City, where the benefits of growth and investment are realised for all residents and businesses. The initial PIC area sits in the centre of the Western Parkland City and covers over 36,000 hectares of land, from Greater Penrith to Eastern Creek and south to Glenfield.

Considering how the Western Parkland City may grow and evolve, three scenarios were developed for the distribution of future growth in the Western Parkland City, as follows:

- 1 The Growing Parkland City: A Western Parkland City created under existing planning opportunities without any further rezoning of land to deliver more suburban communities and jobs in centres, with some transport improvements through already committed infrastructure
- 2 The Thriving Aerotropolis: A Western Parkland City is underpinned by a connected metropolitan cluster, where communities have access to new industries and career opportunities in a thriving Aerotropolis, with stronger centres in Liverpool, Greater Penrith and Campbelltown-Macarthur, that are well connected to surrounding compact, urban and renewed communities and centres.
- 3 The Thriving Metropolitan Cluster: A Western Parkland City is underpinned by the metropolitan cluster, where people have easy and better access to industry and jobs in Liverpool, Greater Penrith and Campbelltown-Macarthur, surrounding employment areas and the emerging Aerotropolis

The key findings of the PIC confirmed the need to be selective about where, when and what to invest to create over time the Western Parkland City. Specifically, this reinforced the need to align growth with the provision of infrastructure. To deliver this outcome, key actions were identified to inform how growth can be efficiently and equitably aligned with the provision of infrastructure, notably:

- Action 1: Identifying initial places for jobs and skills, including Penrith Centre Precinct and Kingswood and Werrington Precinct
- Action 2: Identifying initial places for housing and people, including South Penrith and Glenmore Park precincts (south). Mount Druitt Centre and Rooty Hill Precinct (north), St Marys (central) and Orchard Hills (north and east) precincts
- Action 3: Identifying initial places for landscape and resilience, including Wianamatta-South Creek in Kingswood and Werrington, St Marys and Orchard Hills precincts
- Action 4: Identifying subsequent places for growth and change, including the western and southern parts of Orchard Hills Precinct and Luxford Precinct
- Action 9: Developing a regional whole-of-water cycle and stormwater management reform as part of place-making with DPIE to lead a process to clarify the desired infrastructure requirements and service levels; roles and responsibilities; and appropriate funding mechanisms
- Action 10: Renewing and increasing the provision of social and affordable housing as part of placemaking to improve the quality, location and mix of social and affordable housing with private housing in the initial PIC area where feasible

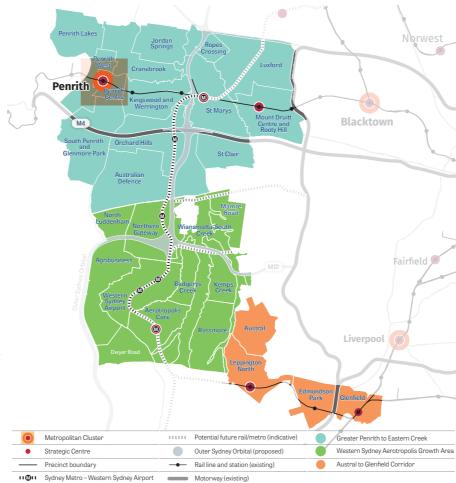


Figure 25: Initial PIC area (GPEC in blue) Source: Making the Western parkland City: Initial Place based Infrastructure compact (PIC) Area, 2020, Greater Sydney Commission, pg. 57

# (GPEC) investigation area

intergenerational disadvantage.

Alongside the new opportunities created from new infrastructure, there are opportunities to help to create richer physical and cultural connections for everyone through a restored Wianamatta-South Creek corridor. This is an important green spine for GPEC's Green and Blue Grid with environmental and cultural significance. Through its enhancement, Wianamatta-South Creek corridor can support the vision for a cooler, green environment for the Western City while playing an important role in enhancing physical and cultural connections for everyone.

Urban Design and Landscape Analysis October 2022

# Strategic significance of Greater Penrith to Eastern Creek

The Greater Penrith to Eastern Creek (GPEC) investigation is set to benefit from significant transformation. The opening of the Western Sydney International (Nancy-Bird Walton) Airport in 2026, the Sydney Metro – Western Sydney Airport and the creation of the Western Sydney Aerotropolis are three catalysts for this transformation. This is set to support new economic hubs of new industries across the Western Parkland City, including the GPEC investigation area, generating a range of new jobs within 30 minutes access by public transport.

Strategic planning policy at regional, district and local levels all recognise this opportunity, and look to leverage this through coordinated, placebased growth for new jobs and homes in locations that are supported by appropriate infrastructure and services. Longer term opportunities for place based planning may be unlocked through additional transport infrastructure commitments (i.e. the Sydney Metro Airport line extension) through key areas of disadvantage such as Luxford. These opportunities can improve the quality, location and mix of, social and affordable housing in the GPEC area and have a marked positive impact in areas of