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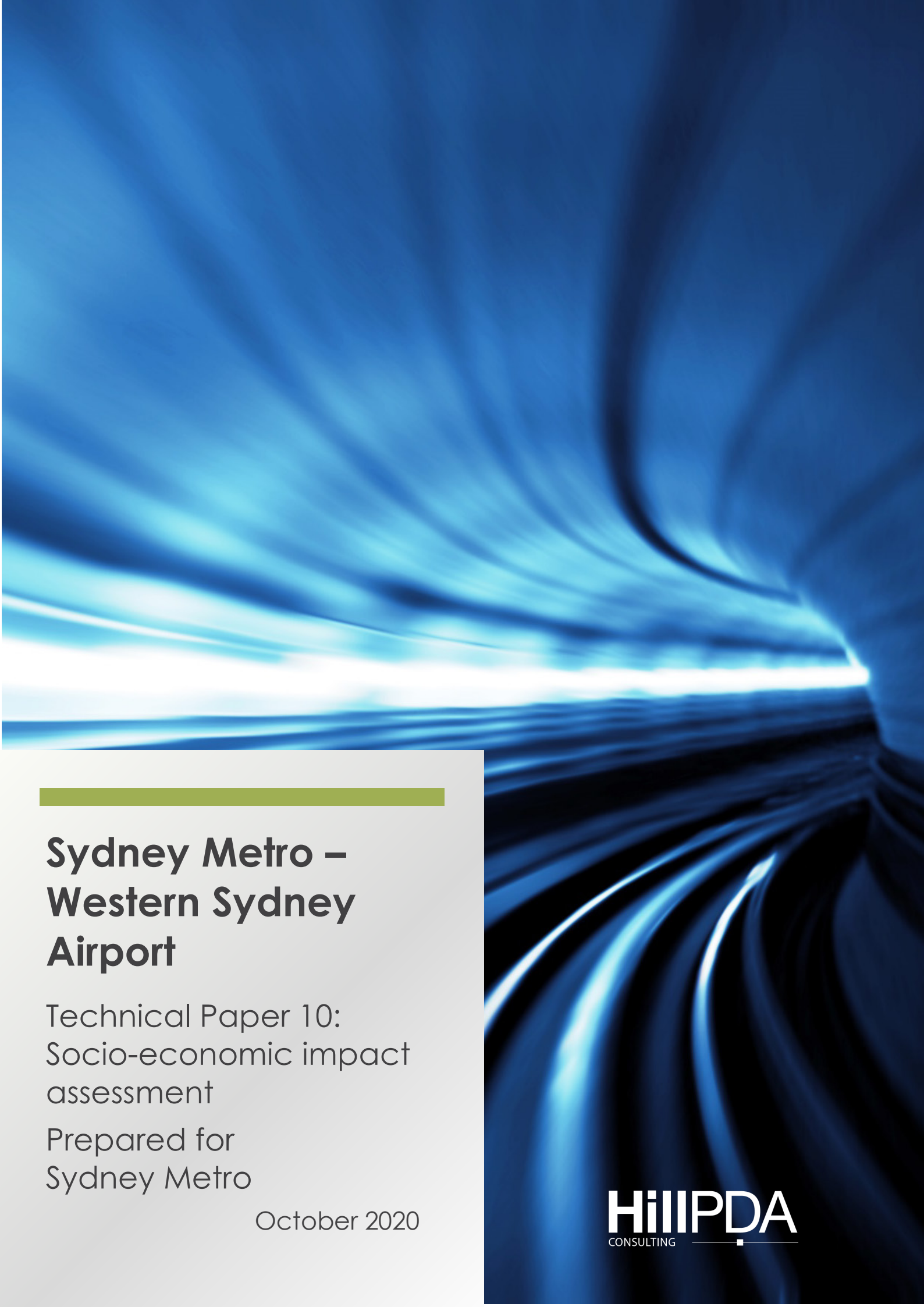
Sydney Metro – Western Sydney Airport

Technical Paper 10
Social and economic



Sydney Metro – Western Sydney Airport

Technical Paper 10: Socio-economic impact assessment

Prepared for
Sydney Metro

October 2020

HillPDA CONSULTING

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EXECUTIVE SUMMARY

The *Greater Sydney Region Plan* (Greater Sydney Commission, 2018a) sets the vision and strategy for Greater Sydney to become a global metropolis of three unique and connected cities; the Eastern Harbour City, the Central River City and the Western Parkland City. The Western Parkland City incorporates the future Western Sydney International (Nancy-Bird Walton) Airport (hereafter referred to as Western Sydney International) and Western Sydney Aerotropolis (hereafter referred to as the Aerotropolis).

Sydney Metro – Western Sydney Airport (the project) is identified in the *Greater Sydney Region Plan* as a key element to delivering an integrated transport system for the Western Parkland City.

The project is located within the Penrith and Liverpool Local Government Areas (LGAs) and would involve the construction and operation of a new metro railway line around 23 kilometres in length between the T1 Western Line at St Marys in the north and the Aerotropolis in the south. This would include a section of the alignment which passes through and provides access to Western Sydney International.

The project is characterised into components that are located outside Western Sydney International (off-airport) and components that are located within Western Sydney International (on-airport), to align with their different planning approval pathways required under State and Commonwealth legislation.

A socio-economic economic impact assessment (SEIA) for the project is provided in this technical paper. The assessment was prepared in accordance with the *Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and Extractive Industry Development* (Department of Planning and Environment, 2017) and the E*nvironmental Impact Assessment Practice Note (EIA-N05) – Socio-economic assessment* (Transport for NSW, 2020).

The study area for the assessment was defined by three areas of social influence including the project area for the Environmental Impact Statement, potentially impacted communities and nearby sensitive land uses. The study area included in the assessment is outlined in the table below.

Study area including LGAs, suburbs and proposed stations

LGA	Proposed station	Suburbs intercepted by the project	Adjacent relevant suburbs
Penrith	St Marys Metro station	St Marys	North St Marys
		Werrington	Kingswood
		Claremont Meadows	
		Erskine Park	
	Orchard Hills	Orchard Hills	
	Luddenham Road	Luddenham (part)	
		Kemps Creek (part)	
Liverpool		Luddenham (part)	
		Kemps Creek (part)	
	Airport Business Park	Badgerys Creek	
	Airport Terminal		
	Aerotropolis Core	Bringelly	

Potential socio-economic impacts associated with construction and operation of the project is summarised in the table below.

Summary of potential socio-economic impacts of the project

	Potential positive impacts	Potential negative impacts
Construction	• Increased workforce resulting in increased expenditure in the study area • Potential for increased passing trade for some businesses owing to pedestrian diversions • Stimulation of redevelopment opportunities • Increased food and beverage demand	• Loss of facilities in St Marys through acquisitions (including a Coles supermarket, medical centre and planned early child care centre) • Changes to transport network with potential for access difficulties for some in the community (e.g. closed streets or changed pedestrian routes) • Reduced amenity and associated potential temporary decline in trade for local businesses • Restrictions to servicing and delivery access • Reduced customer access to businesses • Noise, vibration and dust causing disruptions to community spaces and businesses • Reduced car parking, particularly in St Marys • Increased traffic congestion and travel times and therefore vehicle operating costs • Potential for interruptions to power and utilities • Reduced business turnover/viability • Property acquisition and associated relocations • Construction fatigue
Operation	• Enhanced community and business connectivity • Enhanced access to jobs, services and recreation • Increased capacity and development opportunities for St Marys and new precincts • Access to an expanded workforce • Connections to the new international airport, business park and Aerotropolis, creating new opportunities for innovation and investment • Reduced congestion improving access to services and deliveries • Improved business turnover/viability • Improved visual amenity • Opportunities for urban development and housing delivery in transit-oriented developments • Contributes to a healthy built environment and long-term sustainable city.	• Changes in on-street parking availability

There is also the potential for cumulative impacts during the construction phase from other major projects in the surround including Western Sydney International, future M12 Motorway, St Marys Intermodal Freight Terminal and The Northern Road Upgrade. Concurrent construction activities may cause increased construction traffic with the potential to produce a cumulative noise impact along common haulage routes. Increased traffic on local roads, as well as construction activities may cause changes in the rural character and lifestyle impacting the amenity of nearby properties and communities due to construction noise, vibration and dust. There is potential for impacts to health and wellbeing due to construction fatigue from multiple construction projects occurring concurrently.

During operation, the cumulative impacts of these projects would be positive. Collectively, the projects promote greater transport efficiencies by relieving pressure on existing roads and reducing traffic volumes and congestion along some of western Sydney's main arterial roads while improving connections between major hubs improvements in air quality and lower carbon emissions by reducing heavy vehicle traffic.

Potential socio-economic impacts would be managed largely through the following management frameworks and strategies:

- Construction Environmental Management Framework (CEMF)
- Construction Traffic Management Framework (CTMF)
- Construction Noise and vibration Standard (CNVS)
- Overarching Community Communications Strategy (OCCS)
- Construction Environmental Management Plans (CEMPs) and sub-plans.

In addition, measures are proposed to mitigate impacts including:

- Creating opportunities for community involvement and creative expression
- Implementing a program for community benefit during the construction period
- Working collaboratively with other agencies and organisations to offset reductions in car parking
- Building on established processes for property acquisitions.

1.0 INTRODUCTION

1.1 Project context and overview

The *Greater Sydney Region Plan* (Greater Sydney Commission, 2018a) sets the vision and strategy for Greater Sydney to become a global metropolis of three unique and connected cities: the Eastern Harbour City, the Central River City and the Western Parkland City. The Western Parkland City incorporates the future Western Sydney International (Nancy-Bird Walton) Airport (hereafter referred to as Western Sydney International) and Western Sydney Aerotropolis (hereafter referred to as the Aerotropolis).

Sydney Metro – Western Sydney Airport (the project) (see Figure 1-1) is identified in the *Greater Sydney Region Plan* as a key element to delivering an integrated transport system for the Western Parkland City. The project would be located within the Penrith and Liverpool Local Government Areas (LGAs) and would involve the construction and operation of a new metro railway line around 23 kilometres in length between the T1 Western Line at St Marys in the north and the Aerotropolis in the south. This would include a section of the alignment which passes through and provides access to Western Sydney International.

The project is characterised into components that are located outside Western Sydney International (off-airport) and components that are located within Western Sydney International (on-airport), to align with their different planning approval pathways required under State and Commonwealth legislation.

1.2 Key Project features

Key operational features of the project are shown on Figure 1-1 and would include:

- around 4.3 kilometres of twin rail tunnels (generally located side by side) between St Marys (the northern extent of the project) and Orchard Hills
- a cut-and-cover tunnel around 350 metres long (including tunnel portal), transitioning to an in-cutting rail alignment south of the M4 Western Motorway at Orchard Hills
- around 10 kilometres of rail alignment between Orchard Hills and Western Sydney International, consisting of a combination of viaduct and surface rail alignment
- around two kilometres of surface rail alignment within Western Sydney International
- around 3.3 kilometres of twin rail tunnels (including tunnel portal) within Western Sydney International
- around three kilometres of twin rail tunnels between Western Sydney International and the Aerotropolis Core
- six new metro stations:
    - four off-airport stations:
        - St Marys (providing interchange with the T1 Western Line)
        - Orchard Hills
        - Luddenham Road
        - Aerotropolis Core
    - two on-airport stations:
        - Airport Business Park
        - Airport Terminal
- grade separation of the track alignment at key locations including:

  - where the alignment interfaces with existing infrastructure such as the Great Western Highway, M4 Western Motorway, Lansdowne Road, Patons Lane, the Warragamba to Prospect Water Supply Pipelines (pipelines), Luddenham Road, the future M12 Motorway, Elizabeth Drive, Derwent Road and Badgerys Creek Road
  - crossings of Blaxland Creek, Cosgroves Creek, Badgerys Creek and other small waterways to provide flood immunity for the project
- modifications to the existing Sydney Trains station and rail infrastructure at St Marys (where required) to support interchange and customer transfer between the new metro station and the T1 Western Line
- a stabling and maintenance facility and operational control centre located to the south of Blaxland Creek and east of the proposed metro track
- new pedestrian, cycle, park-and-ride and kiss-and-ride facilities, public transport interchange infrastructure, road infrastructure and landscaping as part of the station precincts.

The project would also include:

- turnback track arrangements (turnbacks) at St Marys and Aerotropolis Core to allow trains to turn back and run in the opposite direction
- additional track stubs to the east of St Marys Station and south of the Aerotropolis Core Station to allow for potential future extension of the line to the north and south respectively without impacting future metro operations
- an integrated tunnel ventilation system including services facilities at Claremont Meadows and at Bringelly
- all operational systems and infrastructure such as crossovers, rail sidings, signalling, communications, overhead wiring, power supply, lighting, fencing, security and access tracks/paths
- retaining walls at required locations along the alignment
- environmental protection measures such as noise barriers (if required), on-site water detention, water quality treatment basins and other drainage works.

Off-airport project components

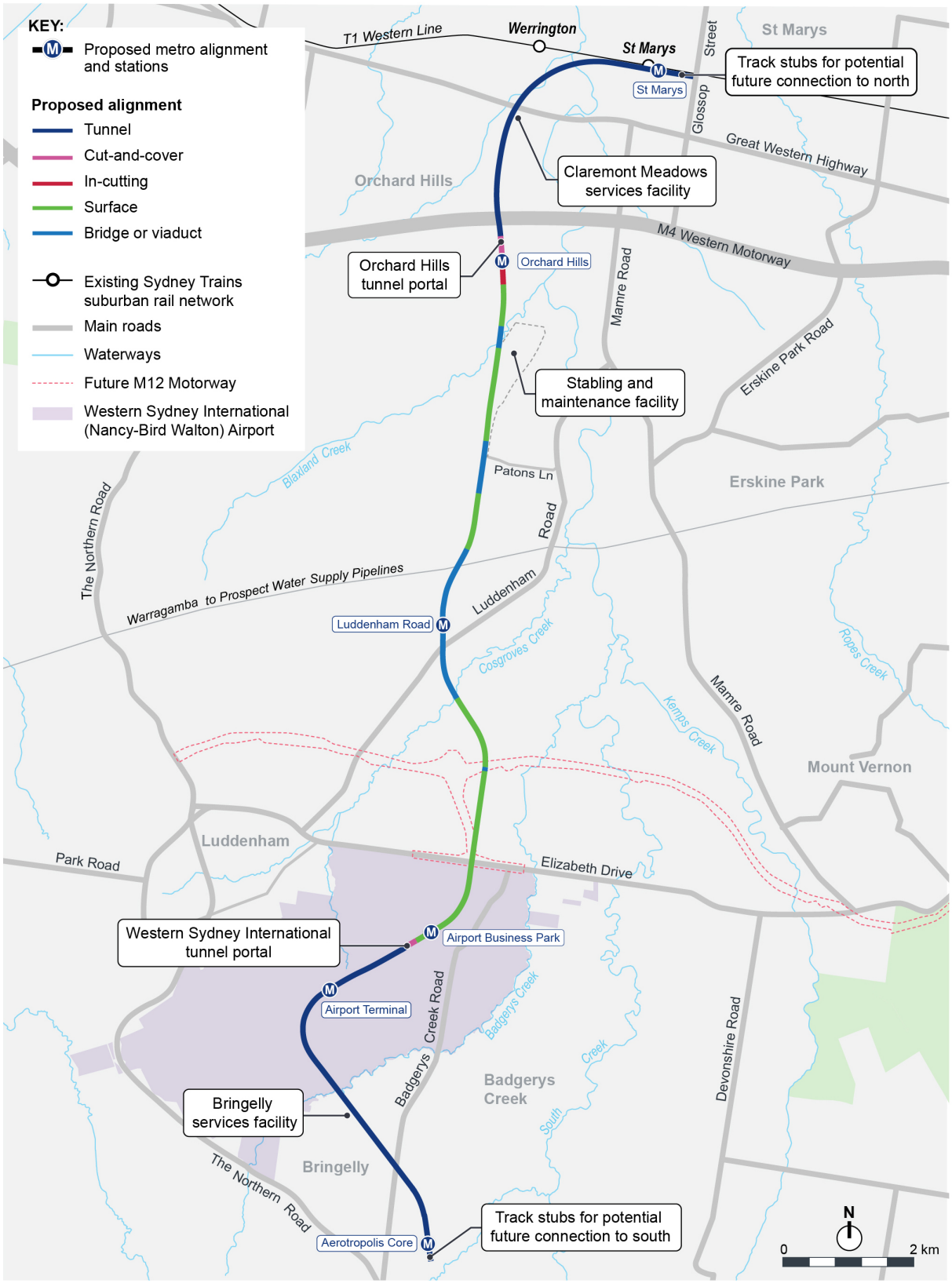
The off-airport components of the project would include the track alignment and associated operational systems and infrastructure north and south of Western Sydney International, four metro stations, the stabling and maintenance facility, two service facilities and a tunnel portal.

On-airport project components

The on-airport components of the project would include the track alignment and associated operational systems and infrastructure within Western Sydney International), two metro stations and a tunnel portal.

The key project features and the design development and construction planning processes are described in more detail in Chapter 7 (Project description – operation) of the Environmental Impact Statement.

Figure 1-1: Project alignment and key features



Note: Indicative design only, subject to design development and construction planning

1.3 Project construction

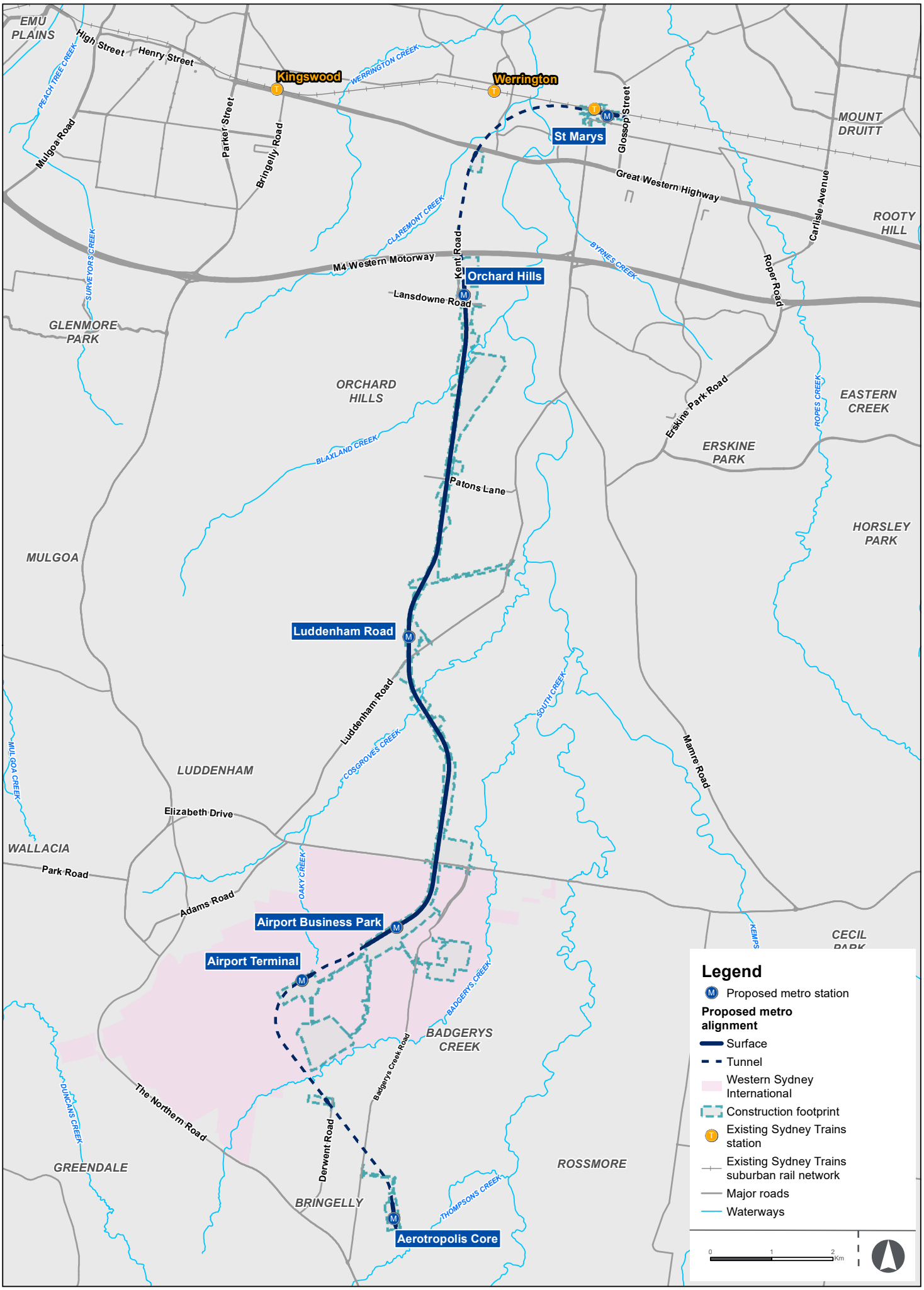
Construction of the project would involve:

- enabling works
- main construction works, including:
  - tunnelling and associated works
  - corridor and associated works
  - stations and associated works
  - ancillary facilities and associated works
  - construction of ancillary infrastructure including the stabling and maintenance facility
- rail systems fitout
- finishing works and testing and commissioning.

These activities are described in more detail in Chapter 8 (Project description – construction) of the Environmental Impact Statement.

The construction footprint for the project is shown on Figure 1-2.

The indicative timeframe for the project is for main construction to commence in 2021, subject to planning approval, and take around five years to complete. An overview of the construction program is provided in Chapter 8 (Project description – construction) of the Environmental Impact Statement.



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Construction footprint overview

Figure 1-2

1.4 Purpose of this SEIA

This socio-economic impact assessment (SEIA), Technical paper 10 (Socio-economic impact assessment), has been prepared to support the Environmental Impact Statement for the project. This SEIA:

- identifies the project's socio-economic area of influence (referred to as the 'study area' – see Section 3.2.2) including LGAs, suburbs, communities and social infrastructure likely to be affected by the project
- describes the existing environment of the study area in terms of socio-economic characteristics to establish a social baseline by which potential socio-economic impacts can be predicted
- identifies and predicts the potential benefits and direct/indirect impacts on communities and social infrastructure in the study area due to construction and operational activities
- identifies cumulative impacts resulting from concurrent construction activities with other major projects
- outlines mitigation measures to avoid or minimise potential negative impacts and maximise project benefits to the community.

1.4.1 Secretary's Environmental Assessment Requirements

The Secretary's Environmental Assessment Requirements (SEARs) relating to socio-economic impacts and where these requirements are addressed in this SEIA are outlined in Table 1-1.

Table 1-1: Socio-economic SEARs

Ref	SEARs requirements	Where addressed in this document
15. Other Issues		
	Social, economic, air quality, waste and resources, hazards and risk, greenhouse gas assessments should be undertaken in accordance with the commitments in section 8 and section 9 of the Scoping Report.	Socio-economic impacts are assessed in Chapter 5 and Chapter 6 of this SEIA.

1.4.2 Commonwealth requirements

The Minister for the Environment has advised that the on-airport aspects of the project would be assessed based on the provision of preliminary documentation. Further information was requested to guide the assessment of the on-airport components of the project. This information is included in Appendix J of the Environmental Impact Statement.

1.4.3 SEIA Structure

This SEIA is structured as follows:

- Chapter 1 – Introduction
- Chapter 2 – Legislative and policy context
- Chapter 3 –Methodology
- Chapter 4 – Existing environment
- Chapter 5 – Assessment of construction impacts
- Chapter 6 – Assessment of operational impact
- Chapter 7 – Cumulative impacts
- Chapter 8 – Mitigation measures
- Chapter 9 – Conclusion.

2.0 LEGISLATIVE AND POLICY CONTEXT

The relevant legislation, policies and guidelines for social impact assessment matters have been considered during the preparation of this SEIA and the Environmental Impact Statement. Legislation and policy which has been discussed in the Environmental Impact Statement is outlined in Table 2-1 and Table 2-2.

Other relevant legislation and policy is outlined in the following sections.

Table 2-1: SEIA relevant legislation

Legislation	Reference
Commonwealth	
Airports Act 1996	Section 4.1.2 of the Environmental Impact Statement
Western Sydney Airport – Airport Plan	Section 4.1.2 of the Environmental Impact Statement
State	
Environmental Planning and Assessment Act	Section 1.5.1 of the Environmental Impact Statement
Environmental Planning and Assessment Regulation	Section 4.1.1 of the Environmental Impact Statement
State Environmental Planning Policy (State and Regional development)	Section 4.1.1 of the Environmental Impact Statement
State Environmental Planning Policy (Western Sydney Employment Area) 2009	Section 19.4.1 of the Environmental Impact Statement
Land Acquisition (Just Terms Compensation) Act 1991	Section 9.2.1 of the Environmental Impact Statement

Table 2-2: SEIA relevant policy

Policy	Reference
Commonwealth	
Western City Deal	Section 2.3.2 of the Environmental Impact Statement
Greater Penrith to Eastern Creek Growth Investigation Area	Section 2.3.4 of the Environmental Impact Statement
State	
Greater Sydney Region Plan	Section 2.2.2 of the Environmental Impact Statement
Western Sydney District Plan	Section 2.3.1 of the Environmental Impact Statement
Draft Western Sydney Aerotropolis Plan	Section 2.3.3 of the Environmental Impact Statement
Local Government	
Penrith Local Strategic Planning Statement	Section 2.3.5 of the Environmental Impact Statement
Liverpool Local Strategic Planning Statement	Section 2.3.5 of the Environmental Impact Statement

2.1 Off-airport legislation and policy context

2.1.1 Commonwealth policy

Australian Infrastructure Audit

An Assessment of Australia's Future Infrastructure Needs – The Australian Infrastructure Audit 2019 (Infrastructure Audit) (Infrastructure Australia, 2019) is a review of transport, energy, water, telecommunications and social infrastructure. It examines the major challenges and opportunities facing Australia's infrastructure into the future.

With respect to transport infrastructure, the Infrastructure Audit reported that the total cost of road congestion in 2031 was projected to be $38.8 billion. While significant investments are being made in public transportation projects, these are "largely playing 'catch up' rather than providing additional capacity that will support substantial future growth." However, projects have assisted, in part, in reducing the projected cost, which was previously forecasted $14.5 billion higher in 2031 as of the 2015 audit.

The Infrastructure Audit identifies the following challenges relating to transport that are relevant to the SEIA and the Project:

> *68. Public transport service levels and access is lower in the outer suburbs and regional centres. This results in lower public transport mode share, and a reliance on cars in these areas.*
> *69. People on the outskirts of our cities and in regional and remote Australia pay proportionally more for transport*
> *77. Freight transport in our fast-growing cities is impacted by congestion leading to increased costs.*

By expanding the rail network, including access to the new airport, the project can help create connections to a new jobs centre. This may reduce transport costs due to shorter distances travelled, while also reducing passenger vehicle traffic and associated congestion.

2.1.2 State policy context

Future Transport 2056

The *Future Transport 2056* strategy is the current long-term transport masterplan for NSW. It includes a suite of strategies and plans for transport developed in concert with the Greater Sydney Commission to guide the long-term development of transport networks in NSW and Greater Sydney in line with future requirements. The strategy highlights the social and economic importance of the project in connecting Western Sydney International to Greater Sydney and shaping the future growth and development of the Western Parkland City. It acknowledges the economic benefits of the project in facilitating more customers in the west to access jobs and services. The strategy identifies a 'City-shaping Network,' that includes high capacity, high frequency services that provide access to metropolitan centres in Sydney, including a City-shaping corridor between St Marys and Western Sydney International (i.e. the project).

2.1.3 Local government policy context

Table 2-3: Local government policy overview

Policy	Relevance to the SEIA
Penrith City Council	
Community Plan 2017	Community Plan 2017 is the community strategic plan for Penrith City Council. It outlines long-term goals for the council through a series of 'community outcomes' and corresponding strategies. Strategies relevant for this SEIA include: • **Strategy 1.1:** Attract investment to grow the economy and increase the range of businesses operating in the region • **Strategy 2.1:** Facilitate development in the City that considers the current and future needs of our community • **Strategy 2.3:** Ensure services, facilities and infrastructure meet the changing needs of our City • **Strategy 3.1:** Work with partners to improve public transport • **Strategy 3.4:** Improve passenger and freight transport connections in the region • **Strategy 4.2:** Help make our major centres and important community places safe and attractive. These strategies outline the importance of developing centres across the Penrith LGA, specifically improving public transportation options and amenity around St Marys. While other centres in proximity to the project are not specifically mentioned, the project is noted as a critical public transport project.
Economic Development Strategy (2017)	Economic Development Strategy: Building the New West (EDS) examines major development projects relevant to the Penrith LGA, economic indicators, trends and targets. The EDS identifies the need to support industries and promote job growth in the region, with the Project and the connection to Western Sydney International being critical opportunities for residents and businesses.
Liverpool City Council	
Our Home, Liverpool 2027	Our Home, Liverpool 2027 is the community strategic plan for Liverpool City Council. It identifies four key directions aligning with the quadruple bottom line (defined as social, economic, environmental, and civic leadership). The primary direction relevant to the SEIA is 'Generating Opportunity,' where Council seeks new and expanding businesses, an improved employment rate and improved transport connections.
Liverpool Economic Development Strategy 2019-2029	Liverpool Economic Development Strategy 2019-2029 identifies the Council's economic development strategies to 2029. In part, it highlights the Aerotropolis and the associated dedicated business hub at Badgerys Creek as key opportunities from economic growth and employment opportunities. While the Project is not specifically mentioned, access to major rail routes and public transport links to the CBD are noted to be critical infrastructure.

3.0 METHODOLOGY

3.1 Approach to the SEIA

This SEIA details the impact of the project during the construction and operation phases, identifies appropriate mitigation measures, and addresses all relevant requirements of the SEARs. The assessment was carried out in accordance with and guidance from:

- Social Impact Assessment Guideline for State Significant Mining, Petroleum Production and *Extractive Industry Development* (Department of Planning and Environment, 2017)
- E*nvironmental Impact Assessment Practice Note (EIA-N05) – Socio-economic assessment* (Transport for NSW, 2020)
- Penrith City Council and Liverpool City Council's strategies and community plans.

3.2 Steps in undertaking the SEIA

3.2.1 Reviewing the project description

A thorough review of the project description, design and its associated activities during construction and operation, was undertaken to identify the scope and extent of the direct and indirect socio-economic impacts, opportunities and benefits.

3.2.2 Defining the study area

The SIA Guideline (NSW Department of Planning and Environment, 2017) uses the term 'area of social influence' to describe geographic extent of impacts and benefits arising from a project. In this document, the area of socio-economic influence is the study area. The study area for this assessment encompasses those communities that have the highest potential to experience changes to social conditions or local movement patterns due to the location of the project and related construction activities.

The study area was defined by:

- identifying the project area and the project construction footprint
- reviewing the project description to understand the scale and nature of the project, its associated activities (including ancillary infrastructure), potential direct impacts, potential indirect impacts that may extend from the project construction footprint (for example, transport and logistics corridors, downstream water users) and potential cumulative impacts, opportunities and benefits
- predicting who may be affected by the project, how they are expected to be affected, and their relevant interests, values and aspirations
- identifying any potentially affected built or natural features located on or near the project area and within the project construction footprint that have been identified as having social value or importance, including key social infrastructure, facilities and amenities
- identifying any relevant social trends or social change processes being experienced by communities near the project area and within the surrounding region
- considering the likely distribution of potential socio-economic impacts and benefits at a local and regional scale
- identifying the location of other relevant projects which may, in combination with the project, contribute to cumulative impacts.

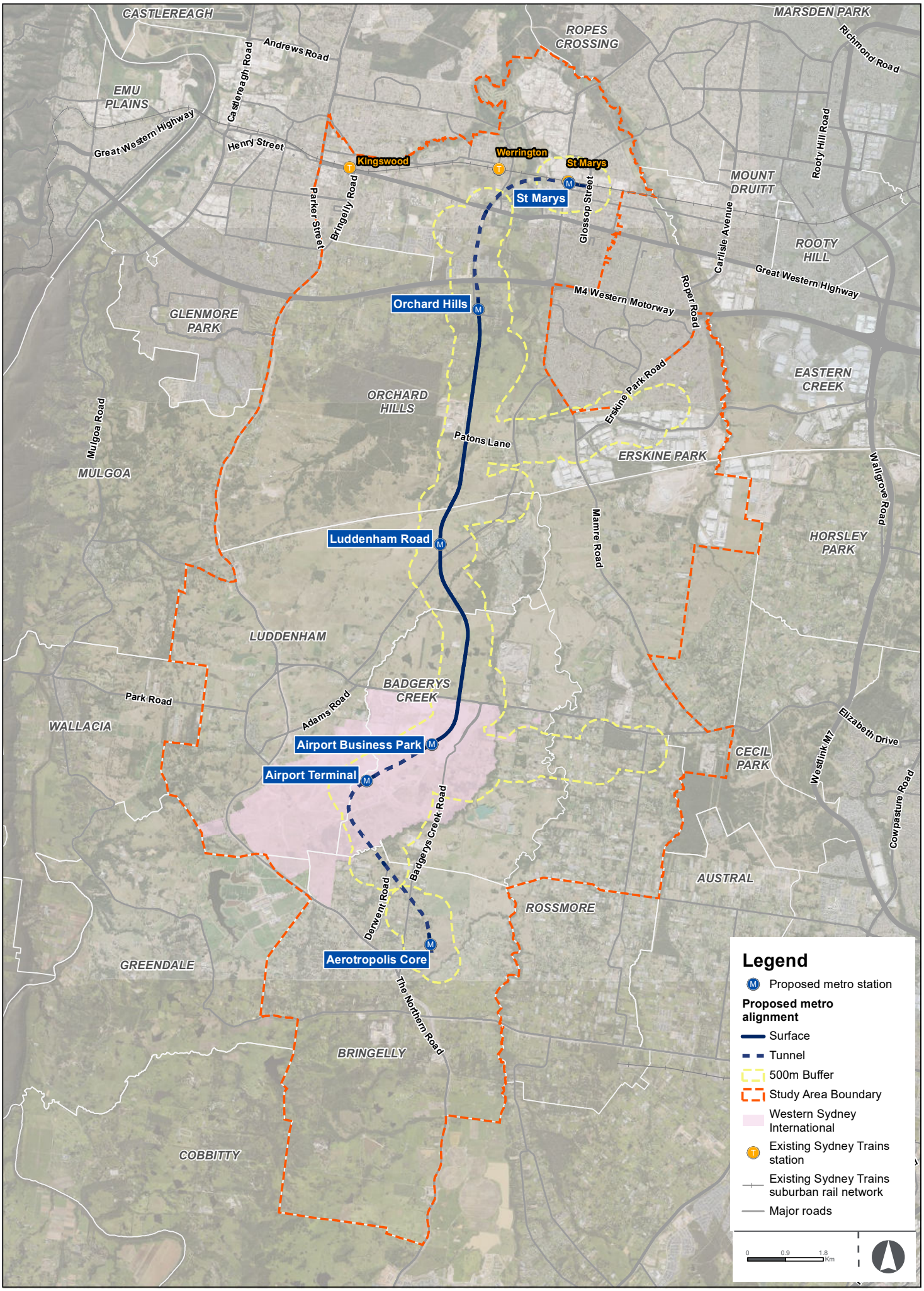
The study area for this SEIA is shown in Figure 3-1. The study area is defined by three areas of social influence:

- The **project area,** for the Environmental Impact Statement (see Figure 1-3):
  - This area of influence comprises landowners and other stakeholders within and adjacent to the project area that are most likely to be directly and adversely affected by the project (see Section 1.2).
  - The construction footprint (see Figure 1-3), defined as the total extent of land required for the construction of the project, including ancillary facilities and services and land temporarily required for construction (incorporating construction elements such as compounds, access tracks and worksites).
- **Potentially impacted communities.** This area of influence comprises several State Suburbs, as defined by Australian Bureau of Statistics (ABS) State Suburb Codes (SSCs), defined onwards in this SEIA as communities, intersected by the project area as indicated in Table 3-1.
- **Nearby sensitive land uses**, defined as social infrastructure that falls within the SSC, and highlight that within 500 metres of the construction footprint. The 500 metre radius from the construction footprint is shown in Figure 1-2.

Table 3-1: Study area including LGAs, suburbs and proposed stations

LGA	Proposed station	Suburbs intersected by the project	Adjacent suburbs
Penrith	St Marys Station	St Marys	North St Marys
		Werrington	Kingswood
		Claremont Meadows	
		Erskine Park	
	Orchard Hills	Orchard Hills	
	Luddenham Road	Luddenham (Penrith part)	
		Kemps Creek (Penrith part)	
Liverpool		Luddenham (Liverpool part)	
		Kemps Creek (Liverpool part)	
	Airport Business Park	Badgerys Creek	
	Airport Terminal		
	Aerotropolis Core	Bringelly*	

Note: * Bringelly, south of Greendale Road is within the Camden LGA. The proposed station is within the Liverpool LGA The study area includes the entire Bringelly suburb.



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Study area

Figure 3-1

3.2.3 Describing the existing environment

The SEIA includes a description of the existing social characteristics of the communities in the study area to provide a baseline from which impacts of the project are assessed. The socio-economic environment is described in terms of:

- the key population and demographic indicators to identify the individuals, and groups within the community that may be vulnerable to changes brought about by the project, due to such things as their level of economic resources, age, need for assistance or cultural background
- the socio-economic indicators including population and demography, families and housing, Socio-economic Index for Areas (SEIFA), need for assistance, travel behaviour, labour force, income and employment, business and industry
- the community values, defined as the characteristics and attributes that people value about a place and contribute to its overall character or enjoyment. Community values relate to such things as:
    - amenity and character, including character of the built form or natural environment, existing noise levels and air quality, heritage and cultural features important to local communities
    - community health and safety, including road safety and perceptions of community safety
    - community cohesion and sense of community, including levels of community participation, places of importance to community members, presence of community networks, existing barriers to movement and access to employment and community services
    - environmental values, including natural features important to local communities, waterways, perceived air quality
    - what defines a place for its inhabitants and users, the intangible connections to place
    - community fears, aspirations and view of the future.
- the social infrastructure within 500 metres of the construction footprint that could be impacted by construction or operation. These impacts would include changes to how infrastructure is used by the community, or how they are accessed. Social infrastructure within the study area is also identified, as these are likely to be accessed by communities from a broader catchment. Social infrastructure includes:
    - physical infrastructure of local and regional community significance due to their contribution to meet social needs and enhance community wellbeing. Physical infrastructure includes education facilities, community facilities (such as town halls, youth centres, libraries, age care, child care), open spaces, sports and recreational facilities, places of worship, public health/medical facilities and emergency services (fire and rescue, police and ambulance)
    - non-physical infrastructure such as social services, programs and networks, public transport and walking and cycling facilities.

Information required to describe the existing environment was sourced from:

- data on population and demography, income and employment and business and industry available from the Australian Bureau of Statistics (ABS) Census of Population and Housing 2016 (ABS, 2016)
- data on population and demography available from online sources such as *.id – the population experts id.com.au*
- existing socio-economic policies and strategies relevant to the study area, including relevant State, Penrith City and Liverpool City Council strategies, community plans, and studies
- analysis of social infrastructure, based on a review of web-based information, including Council websites, GIS, Google maps

- two community surveys conducted by Sydney Metro (February/March and July 2020) to seek the community's views on the project
- observations made during site visits.

As shown Figure 3-1, the suburbs of Luddenham and Badgerys Creek intersect with the Western Sydney International footprint. Due to limitations in Census data availability, information regarding the existing environment is presented for the entire suburb, both on-airport and off-airport. The on-airport existing environment has also been considered separately, taking into account more recent changes to the local environment, such as those associated with Western Sydney International development. This allows for a comparison of effects on the on-airport portion of the project.

3.2.4 Impact identification and assessment

This SEIA includes the identification and analysis of the likely changes to the existing socio-economic conditions, or baseline, of the study area due to the project footprint, and construction and operation activities.

Socio-economic impacts were initially identified and described through a workshop with Sydney Metro and community engagement specialists in May 2020. Potential impacts were researched and refined based on findings from stakeholder consultations, review of other technical studies and chapters prepared for the Environmental Impact Statement, including:

- Chapter 7 (Project description – operation)
- Chapter 8 (Project description – construction)
- Chapter 19 (Land use and property)
- Chapter 22 (Air quality)
- Chapter 23 (Hazard and Risk)
- Technical paper 1 (Transport)
- Technical paper 2 (Noise and vibration)
- Technical paper 4 (Non-Aboriginal heritage)
- Technical paper 5 (Aboriginal heritage)
- Technical paper 8 (Contamination)
- Technical paper 9 (Landscape and visual).

Socio-economic impacts have been identified separately for construction and operation. Socio-economic impact categories and matters to be considered are outlined in Table 3-1 and further discussed in Chapters 5 and 6.

The definition of social impact categories to be considered in this SEIA was informed by the checklist of social, environmental and economic matters included in the SIA Guideline and the associated Scoping Tool. The completed scoping tool is provided at Appendix A. Appendix B of the SIA Guideline was used to reference the range of social matters that should be considered under each of the social impact categories.

The list of social categories was further refined based on the EIA-N05, which provides an overview of those matters to be considered in assessing the socio-economic benefits and impacts of transport projects, including impacts associated with a project's footprint, construction and operation.

Table 3-2: Categories of socio-economic impacts

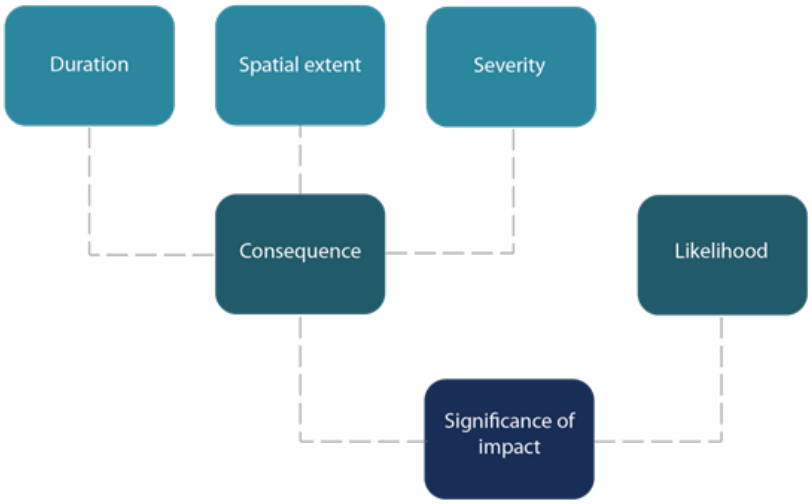
Impact category	Description
Way of life	Including: • how people live e.g. how they get around, access to adequate housing • how people work e.g. access to adequate employment, working conditions and/or practices • how people play e.g. access to recreation activities • how people interact with one another on a daily basis
Community	Including its composition, cohesion and character, how it functions, and sense of place
Access to and use of infrastructure, services and facilities	Whether provided by local, State or Federal governments, or by for-profit or not-for-profit organisations or volunteer groups
Culture	Including shared beliefs, customs, values and stories, connections to land, places and buildings, and including Aboriginal culture and connection to country
Health and wellbeing	Including physical and mental health
Surroundings	Including access to and use of ecosystem services, public safety and security, access to and use of the natural and built environment and their aesthetic value and/or amenity
Personal and property rights	Including whether their economic livelihoods are affected, and whether they experience personal disadvantage or have their civil liberties affected
Decision-making systems	Particularly the extent to which they can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms
Fears and aspirations	Related to one or a combination of the above, or about the future of their community
Economy	Including local and regional impacts to the economy through changes in the investment environment and productivity

Source: Adapted from the SIA Guidelines, associated Scoping tool and EIA-N05.

The impact assessment presented in this SEIA identifies and evaluates changes to the existing socio-economic environment. This includes the assessment of direct and indirect impacts, negative and positive/beneficial impacts, as well as consideration of any cumulative impacts. Individual impacts are evaluated in terms of the likelihood of the impact occurring, the magnitude of the consequence and the significance of the impact.

Figure 3-2 identifies the process for identifying the significance or risk of an impact. This involves identifying the consequence of an impact by considering the potential combinations of duration, spatial and severity outcomes, and the likelihood of an impact occurring.

Figure 3-2: Impact significance process



Consequence of impact

The consequence of a potential impact is determined by considering the potential duration, extent and severity of an impact. This process is key to understanding the potential risk rating for an impact.

Criteria for assessing the potential consequence of an impact are identified in Table 3-3.

Table 3-3: Criteria for assessing the duration, spatial extent and severity of a potential social impact

1. Duration	
Short term	Less than one year Low frequency
Medium term	One to six years Medium intermittent frequency
Long term	Six or more years

2. Spatial extent	
Direct property	Individual/ household
Locality	Small number of households
Suburb	Large part of/ whole community Suburb as defined by ABS

3. Severity	
Negligible	No discernible positive or negative changes to baseline conditions
Small	Minimal positive or negative changes to baseline conditions
Medium	Moderate positive or negative changes to baseline conditions
Large	Major positive or negative change to baseline conditions

Based on a consideration of the criteria, a consequence is assigned that best fits the overall description of the criteria. Each consequence is detailed in Table 3-4.

Table 3-4: Consequence

Consequence	Description
Minimal	No lasting detrimental or negligible impact on the community or environment.
Minor	Minor, short-term isolated impact on the community or environment.
Moderate	Modest, medium-term, widespread impact on the community or environment.
Major	Serious, long-term, widespread impact on the community or environment. Widespread community unrest or discomfort.
Catastrophic	Severe/extensive on-going, widespread impact on the community or environment.

Likelihood of impact

The likelihood of a potential impact is a primary element of considering each social impact and its risk rating. The criteria used to determine the likelihood of any potential impact are described below in Table 3-5.

Table 3-5: Likelihood of impact

Likelihood	Description	Indicative Probability
Almost certain	Expected to occur, almost frequently	90 per cent
Likely	Could occur in many instances	70 per cent
Possible	Just as likely to happen as not	50 per cent
Unlikely	Limited occurrence	30 per cent
Rare	Very limited occurrence	10 per cent

Significance of impact and risk rating

Once consequence and likelihood impacts have been identified, a significance, or risk rating can be applied. Table 3-6 identifies the risk assessment matrix used to determine levels of risk from the likelihood and consequence ratings. This forms the unmitigated risk rating for the impact.

Table 3-6: Significance of impact

		Consequence				
		Minimal	Minor	Moderate	Major	Catastrophic
Likelihood	Almost certain	High	High	Extreme	Extreme	Extreme
	Likely	Moderate	High	High	Extreme	Extreme
	Possible	Low	Moderate	High	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	High
	Rare	Low	Low	Moderate	High	High

Source: Adapted from the SIA Guidelines and associated Scoping tool

3.2.5 Development of impact mitigation measures

Recommended mitigation measures to avoid or minimise the social impacts identified as an outcome of this assessment are identified in Chapter 5 and Chapter 6 and summarised in Chapter 8.

Under the SIA Guideline, consideration should first be given to avoiding an impact. Where that is not possible, the SIA Guideline states that measure generally take three forms:

- **Performance-based** – identifies performance criteria that must be complied with to achieve an appropriate outcome but do not specify how the outcome is to be achieved. Sufficient supporting evidence would need to be provided in the Environmental Impact Statement to demonstrate why the performance criteria are appropriate.
- **Prescriptive** – itemises actions that need to be taken or things that must not be done, for example, adopt a known best-practice technology, design or management approach to mitigate the impact. The applicant needs to be able to justify why this approach is appropriate by providing scientific evidence or referencing relevant guidelines or case studies.
- **Management-based** – where the potential impacts can be satisfactorily avoided or mitigated by implementing known management approaches. Applicants should provide details on the proposed management approaches in the Environmental Impact Statement to provide greater transparency and certainty.

Consequently, in identifying mitigation measures, this assessment considers:

- measures that have been successfully used in other projects to manage similar project impacts and benefits
- the opportunities to mitigate the impacts of the project on quality of life or social conditions within the study area
- the potential for eliminating the cause of the impact, where possible, rather than managing the outcome
- the opportunities to develop mitigation measures through consultation
- the opportunities to enhance the project's social benefits.

Other technical papers and chapters from the Environmental Impact Statement are referenced to highlight the findings of these studies that are relevant to mitigating social impacts.

Potential socio-economic impacts would be minimised or avoided by implementing the mitigation measures identified by in Chapter 27 (Synthesis) of the Environmental Impact Statement that are relevant to the following issues:

- transport
- noise and vibration
- heritage (both Aboriginal and non-Aboriginal)
- air quality
- landscape and visual amenity.

Chapter 27 (Synthesis) of the Environmental Impact Statement also highlights several management frameworks and plans that would also mitigate socio-economic impacts:

- Construction Environmental Management Framework (CEMF)
- Construction Traffic Management Framework (CTMF)
- Construction Noise and Vibration Standard (CNVS)
- Overarching Community Communications Strategy (OCCS)
- Construction Environmental Management Plans (CEMPs).

In addition to these, measures are recommended in Chapter 8 specifically to address socio-economic impacts identified as an outcome of this assessment.

Upon consideration of the effects of the mitigation measures, the process outlined in Section 3.2.4 was revisited, with a new risk rating applied.

3.3 Stakeholder engagement

Community consultation and stakeholder engagement is discussed in Chapter 5 (Stakeholder and community engagement) of the Environmental Impact Statement.

Sydney Metro commenced community engagement on the project in February and March 2020 via an online survey. The survey was promoted by an information flyer which was letterbox dropped to approximately 16,000 properties between St Marys and Bringelly. The survey was completed by 1,703 respondents.

Sydney Metro engaged in further community engagement through a second online survey in July 2020. The survey provided additional information regarding respondents' anticipated method of travel to metro stations, experiences and expectations related to the construction impacts of major infrastructure projects and preferred methods of communication. The survey was completed by 326 respondents.

Details regarding the findings of the community engagement have been incorporated into the existing environment descriptions of Chapter 4 and provide context for potential impacts in Chapter 5 and Chapter 6, as relevant.

4.0 EXISTING ENVIRONMENT

4.1 Existing environment of the study area

This section describes the existing socio-economic environment in terms of:

- population and demographic characteristics of local and regional communities
- community values, including those relating to local amenity and character, access, connectivity and community cohesion, and community health and safety
- social infrastructure.

Where relevant, statistics have been compared to the Greater Sydney Greater Capital City Statistical Area (Greater Sydney).

4.1.1 Study area characteristics

This section describes the key population and housing characteristics of the study area to identify potential social risks as well as vulnerable communities that may be impacted by changes generated through construction and operation of the project, due to their level of economic resources, age or need for assistance. The study area stretches across eleven suburbs located within the Penrith and Liverpool LGAs. These include North St Marys, St Marys, Werrington, Kingswood, Claremont Meadows, Orchard Hills, Erskine Park, Luddenham, Kemps Creek, Badgerys Creek and Bringelly (see Section 3.2.2). Unless otherwise stated, all data in this section is from the 2016 Census and has been sourced from ABS Table Builder. A detailed community profile of the study area is provided in Appendix B.

Non-Aboriginal and Aboriginal heritage is present within the study area, with detailed information regarding the existing heritage environments provided in Technical paper 4 (Non-Aboriginal heritage) and Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement.

As part of the preparation of Technical paper 4 (Non-Aboriginal heritage) of the Environmental Impact Statement, several local, State and unlisted items of heritage significance have been located within or near the construction footprint. Items are generally centralised around the existing St Marys Station, with additional items representing the more rural characteristics of the southern portion of the study area.

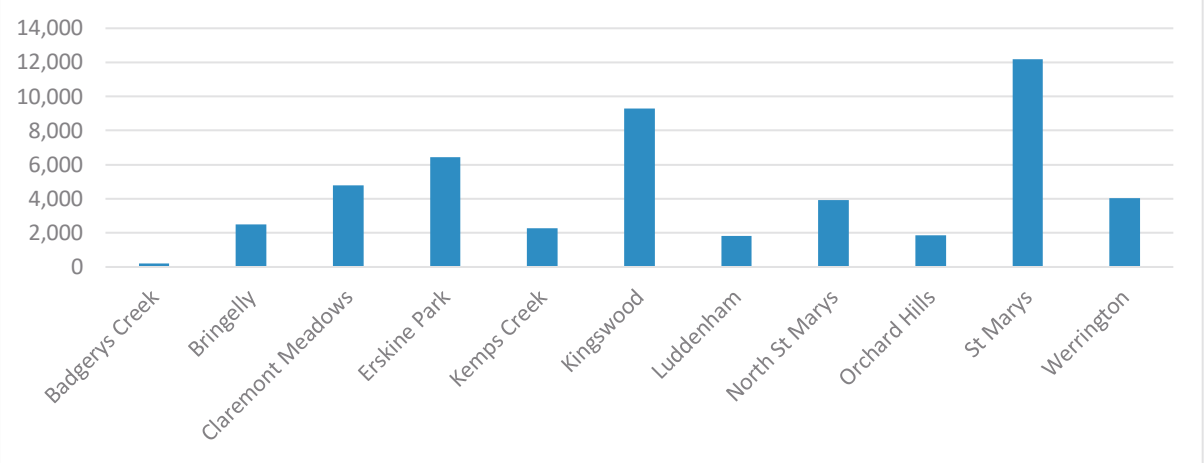
As part of the preparation of Technical paper 5 (Aboriginal heritage), a search of the Aboriginal Heritage Information System (AHIMS) database resulted in the identification of a total of 360 Aboriginal sites, with 10 sites registered within the bounds of the construction footprint (eight on-airport and two off-airport). Some of these were identified to be destroyed or anticipated to be destroyed by other projects. Two additional sites were identified outside of the construction footprint as part of additional inspections. Observations of the landform indicate archaeological potential around creeks and the construction footprint. Further, cultural significance was reported for waterways traversing the construction footprint.

As those technical papers provide extensive detail and context of heritage values across the study area (e.g. explanations of heritage items and cultural importance), they should be considered as part of the existing environment, as relevant for this SEIA.

4.1.2 Demography

In 2016, the study area had an estimated resident population of 49,371 people. St Marys had the largest resident population with 12,218 people, followed by the Claremont Meadows with 4,749 people. Badgerys Creek had the smallest resident population with 194 people.

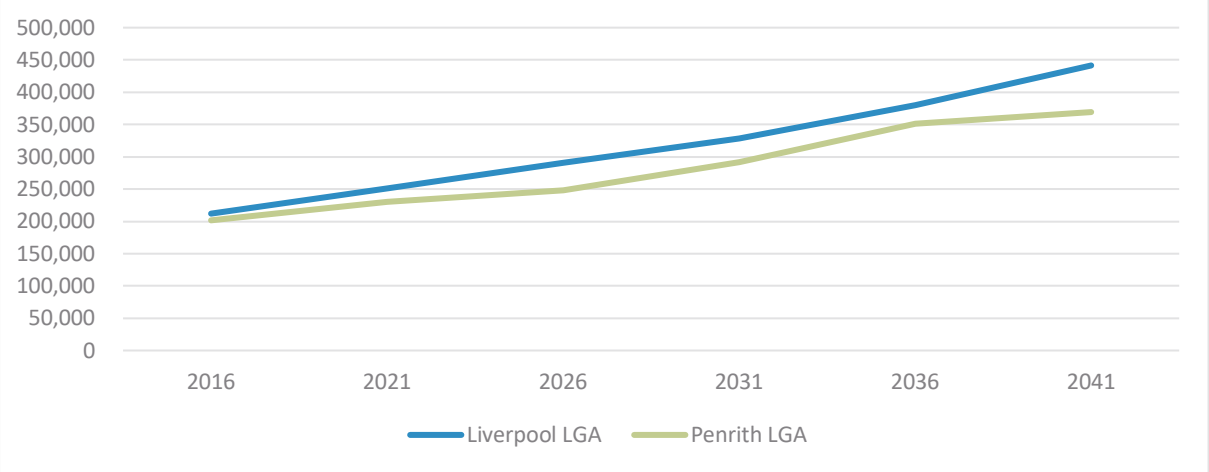
Figure 4-1: Study area population by suburb



ABS Tablebuilder data, 2016 Census

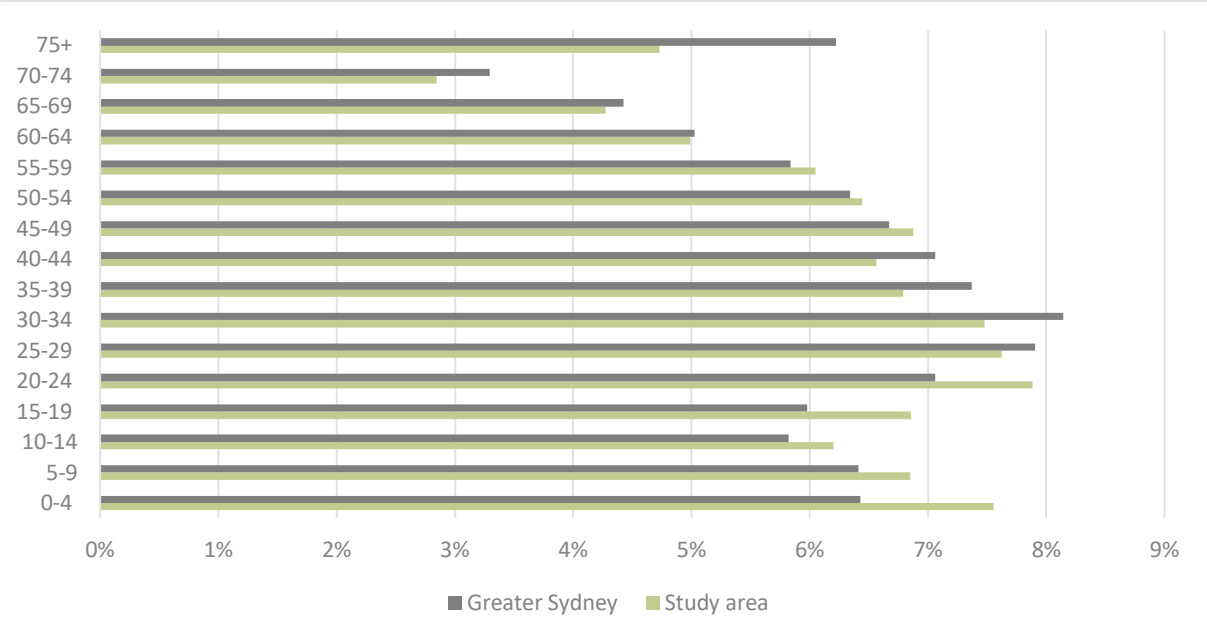
It is expected that the population of the study area will continue to grow, with strategic visions outlined in Chapter 2 likely to result in further growth. Information on future population growth for the study area is only available at an LGA level. Projections indicate that the total combined population of the Penrith and Liverpool LGAs is expected increase by approximately 400,000 people between 2016 and 2041 to a total of approximately 810,000 people (Department of Planning, Industry and Environment, 2019). This represents an increase of 201,358 people from 2016 which is an increase of 50 per cent, demonstrating a rapid population growth. Much of this growth is expected to be driven by population increases in the Liverpool LGA due to land releases and greenfield developments.

Figure 4-2: Projected population growth



NSW Planning Industry and Environment, 2019 series

Figure 4-3: Study area population by age group



ABS Tablebuilder data, 2016 Census

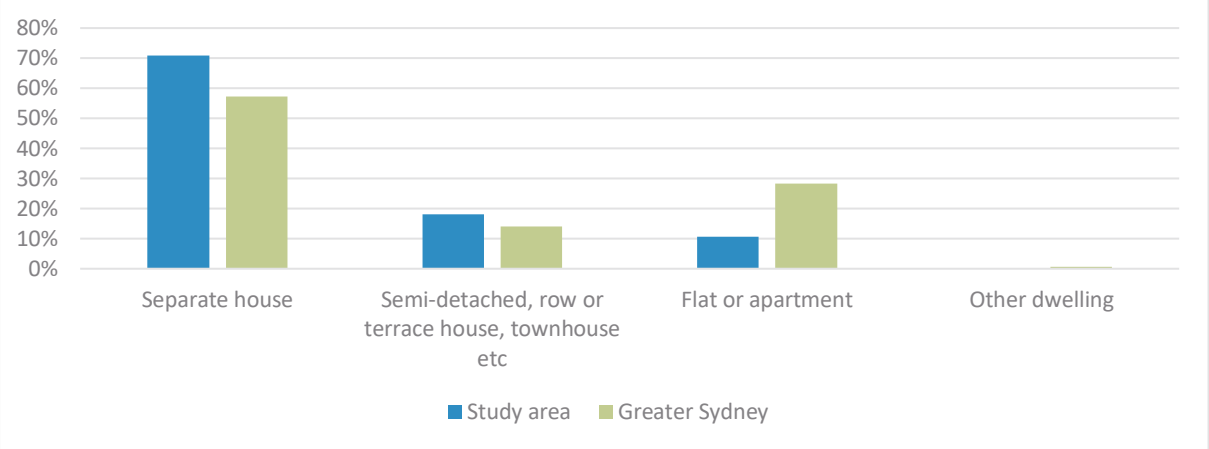
The following trends were also noted:

- The study area has a relatively young population compared to Greater Sydney (GCCSA). The study area has higher proportions of population in all age groups under 24 years. At the suburb level, the study area has higher proportions of people aged 15 years or under in all suburbs except for Orchard Hills and Bringelly. In contrast, the proportion of people aged 65 years and over is relatively low (11.9 per cent) compared to Greater Sydney (13.9 per cent), with lower proportions of people aged 65 years and over in St Marys, Werrington, Claremont Meadows, and Luddenham. Orchard Hills and Badgerys Creek have the highest proportion of people aged 65 years and over.
- The study area is more culturally diverse than Greater Sydney, with relatively high proportions of people born overseas, people who speak a language other than English at home and people who do not speak English well or at all. In 2016, 28.4 per cent of people in the study area were born overseas which is below average when compared to Greater Sydney (36.8 per cent). St Marys had the highest proportion of overseas born population (34.0 per cent) and Luddenham had the smallest proportion (15.0 per cent).
- The study area had a higher proportion of population that spoke English only compared to Greater Sydney (73.9 per cent compared to 58.4 per cent in Greater Sydney), and lower proportions of people who spoke another language and English not well or not at all. In 2016, around 26 per cent of people in the study area spoke a language other than English at home. Non-English languages commonly spoken by people in the study area included Mandarin, Cantonese, Arabic, Croatian, Vietnamese, Hindi, Italian, Maltese, Serbian.
- Levels of English proficiency varied across the study area, with St Marys having the highest proportions of people who do not speak English well or at all (3.3 per cent compared to 6.5 per cent in Greater Sydney). People with lower levels of English proficiency represent a group with communication needs that may be more vulnerable to changes from the project.
- The study area had a relatively high proportion of Indigenous persons with 4.0 per cent being Aboriginal, Torres Strait Islander or both compared to 1.5 per cent in Greater Sydney. North St Marys, St Marys, Werrington, Claremont Meadows, and Luddenham recorded proportions of Indigenous people above

Greater Sydney. North St Marys and Werrington recorded the highest proportion of Indigenous persons in the study area, with 8.6 per cent and 5.1 per cent respectively.

- At the 2016 Census, there were approximately 10,868 households in the study area. Claremont Meadows, Orchard Hills, Luddenham, and Bringelly had higher proportions of couples with children, and lower proportions of single (or lone) person households compared to Greater Sydney. St Marys and Werrington had the highest proportions of lone person, while Luddenham and Claremont Meadows had the higher proportions of couples with children.
- The study area had relatively low levels of population mobility, with higher proportions of people who lived at the same address five years prior to the 2016 Census, compared to Greater Sydney. North St Marys, Claremont Meadows, Orchard Hills, Badgerys Creek and Bringelly were characterised by communities with infrequent changes in residential address. This is likely to reflect some of the more established residential neighbourhoods in the study area. Residents who have lived at the same address for an extended period would likely have stronger ties and attachment to the local area. In 2016, 71 per cent of the residents of Orchard Hills and 67 per cent of the residents of Bringelly lived at the same address five years before the 2016 Census.
- In 2016, there were about 11,812 private dwellings in the study area, of which about 92 per cent, were occupied on Census night. Dwelling types are typical of the study area's rural residential character, with high proportions of separate houses compared to Greater Sydney.
- The study area had relatively higher proportions of dwellings that were being rented compared to that of Greater Sydney. In 2016, St Marys, Werrington and Badgerys Creek had relatively higher levels of rental accommodation. At the 2016 Census, there were 733 dwellings that were rented from a social housing authority, representing about 4.0 per cent of dwellings in the study area. North St Marys, St Marys and Werrington had the higher proportions of dwellings that were being rented from a social housing authority, while Orchard Hills, Luddenham, Badgerys Creek and Bringelly did not have any.
- Approximately 30 per cent of dwellings in the study area were owned outright, which is a higher proportion when compared to 27.7 per cent in Greater Sydney. Orchard Hills and Bringelly had the highest proportions of dwellings in the study area that were owned outright, (48.1 per cent and 45 per cent, respectively).

Figure 4-4: Dwelling type



ABS Tablebuilder data, 2016 Census

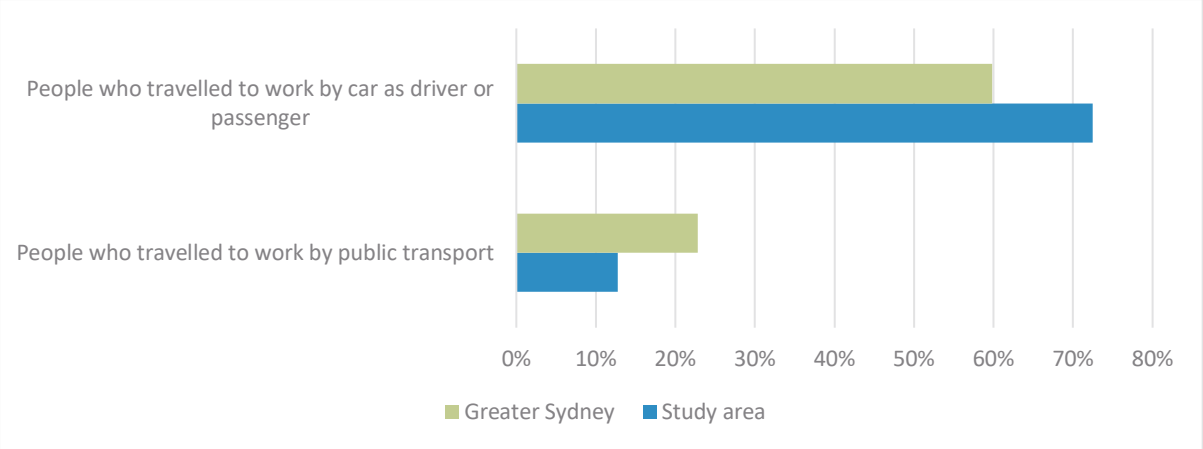
Figure 4-5: Tenure

ABS Tablebuilder data, 2016 Census

- The study area has a mixture of both highly advantaged and disadvantaged areas. Luddenham, Badgerys Creek and Claremont Meadows are highly advantaged suburbs, while North St Marys and St Marys are disadvantaged areas.
- The study area has relatively high levels of people in need of assistance from self-care, communication or mobility services, due to illness, age or disability when compared with Greater Sydney (at 4.9 per cent), specifically North St Marys (at 9.1 per cent), St Marys (at 7.2 per cent), Badgerys Creek (at 7.1 per cent), and Werrington (at 5.7 per cent).
- The proportion of residents in the study area aged 65 years and over is lower when compared to Greater Sydney. However, Kemps Creek, Orchard Hills, North St Marys and Bringelly reported a high proportion residents aged 65 years and over with 18.2 per cent, 16.3 per cent, 15.4 per cent and 14.3 per cent of the population, respectively. People in this group may be more vulnerable to changes brought about by the project, such as changes in local road network, access to public transport, local access to community services and facilities, or impacts associated with property acquisition, including the loss of social and community networks, and changes in local amenity.
- In 2016, the median weekly household income in the study area was low when compared to Greater Sydney, specifically of North St Marys, St Marys, Werrington, Kingswood, Badgerys Creek, Kemps Creek and Bringelly. Claremont Meadows, Orchard Hills and Luddenham median weekly household incomes were above Greater Sydney.
- Werrington, Claremont Meadows, Orchard Hills and Luddenham have higher levels of workforce participation when compared to Greater Sydney. At the 2016 Census, there were 11,127 people in the study area aged 15 years and over who reported being in the labour force.
- Health care and social assistance, retail trade, construction, transport and agriculture are the main industries of employment for people working in the study area.
- Unemployment levels varied across the study area with North St Marys, St Marys, and Werrington all having relatively high unemployment rates at 12.3 per cent, 9.1 per cent, and 8.5 per cent, respectively, well above Greater Sydney at 6.0 per cent.
- In 2016, approximately 79.5 per cent of people working in the study area travelled by car (as driver or passenger) for all or part of their journey to work. This proportion was above the average for Greater Sydney (at 59.8 per cent). Erskine Park (87.3 per cent), Luddenham (87.0 per cent), Claremont Meadows (84.3 per cent) and Kemps Creek (83.3 per cent) had the highest proportion of workers who commuted by car.

- Around 13.4 per cent of people working in the study area travelled to work by train only. Werrington (24.3 per cent), Badgerys Creek (17.1 per cent), St Marys (16.1 per cent) and North St Marys (13.7 per cent) had the highest proportion of workers who commuted by train which in part, reflects the proximity of these areas to existing train stations. Except for Werrington, these levels of train use were mostly below the average for Greater Sydney (at 16.2 per cent).
- Travel behaviour amongst residents generally reflects the study area's low level of access to public transport. Driving was the most common method of travel to work for both those who lived and worked in Penrith LGA and Liverpool LGA at the 2016 Census, with 66.5 per cent of residents within the Penrith LGA and 65.0 per cent in the Liverpool LGA driving to work. This shows a greater reliance on car transport when compared to Greater Sydney, of whom only 52.7 per cent drove to work.
- Active transport opportunities are limited in the study area. In 2016, 1.4 per cent of the Penrith LGA residents and 2.0 per cent of the Liverpool LGA residents walked to work, compared to 4.0 per cent across Greater Sydney. In 2916, 0.2 per cent of residents in each LGA cycled to work, compared to 0.7 per cent in Greater Sydney.

Figure 4-6: Method of travel to work



ABS Tablebuilder data, 2016 Census

4.1.3 Community values

Local amenity and character in the study area is characterised by a diversity of land uses, low to medium density residential developments, patches of bushland and scattered open space, and smaller rural land uses. The study area character is significantly urbanised areas to the north in St Marys, Claremont Meadows and Erskine Park. The southern area is significantly more rural in nature with agriculture, natural reserves, riparian environments and rural villages.

The study area includes some open spaces and reserves that are valued by local and regional communities, including the Badgerys Creek riparian corridor and immediate surrounds which have Aboriginal heritage significance and cultural values. The heritage and history of the study area – including places associated with early European settlement – also contribute to the character and identity of communities. The character of the urban environment is important to local communities and varies throughout the study area.

The community in the study area place great value on the significant proportion of rural and recreational land. Of similar significance are the local environmental values, including the Georges River, creeks, waterways and associated tributaries, the most significant being Nepean River and South Creek, which is recognised as an important regional corridor. The local community aspires to having a healthy and enhanced environment, protecting the rural character of some areas and improving liveability and sustainability while the ongoing

development creates more job opportunities and enables inclusion of the diverse communities that are part of the study area.

The Penrith and Liverpool LGAs hosts a variety of local events, including neighbourhood street fairs, festivals, exhibitions and markets, which provide opportunities to involve local communities and help to foster a sense of community and local identity. Major annual events in the LGAs include:

Table 4-1: Local events in the study area

Month	Event	Location*
Fortnightly	Village Café	Kingswood, North St Marys, Llandilo
Monthly	Love Livo Nights pop-up bar, food, music	Various
March	Liverpool State Fair	Woodward Park
Autumn, TBC	Liverpool on a Roll international food festival	TBC
June	Eid Festival	Woodward Park
July	Way Out West Festival	Casula Powerhouse Arts Centre
Winter, TBC	Liverpool City Council Charity Ball	TBC
August	Eat Your Heart Out Liverpool	TBC
October	Lakeside Long Lunch	Sydney International Regatta Centre, Cranebrook
October	Nepean Triathlon	Sydney International Regatta Centre, Cranebrook
December	Liverpool Sculpture Walk	Casula Powerhouse Arts Centre
December	NYE Light Up The Lake	Chipping Norton Lake

*Note: Many other festivals and events occur in the Penrith and Liverpool LGAs, however, public celebrations may not be held annually

4.1.4 Social infrastructure

A number of community services and facilities forming social infrastructure has been identified within the study area. These cater for the needs of communities within the study area and across the Greater Sydney region and NSW.

Nearby social infrastructure includes:

- primary and secondary education facilities (public and private)
- medical and health services
- emergency services, including fire, police and ambulance stations
- sport, recreation, cultural and leisure facilities.

Table 4-2 lists the social infrastructure located within 500 m of the construction footprint that may experience impacts during construction and/or operation. Section 4.2 includes further information about social infrastructure at the suburb level.

Table 4-2: Social infrastructure near the project

LGA	Indicative new train station	Suburbs in the study area	Social infrastructure within 500 m
Penrith	St Marys Station	North St Marys	St Marys Flexible Learning Centre St Marys Indoor Sports and Recreation
		St Marys	St Marys Senior High School Busy Bees Long Day Care Smile Kids Family Day Care Ripples Leisure and Sports Centre Bennett Park St Marys Library St Marys Community Health Centre The Potter's House Christian Church
		Werrington	Montgrove College Werrington Campus Wollemi College Kurrambee School Putland Education and Training Unit Penrith Valley Learning Centre
		Kingswood	*None*
		Claremont Meadows	Claremont Meadows Public School Lifetime Learners Long Day-care & Pre-School YMCA Claremont Meadows OSHC Claremont Meadows Community Centre Claremont Meadows Medical Centre Myrtle Road Fields Cedars Park Myrtle Road Reserve Central Park Drive Reserve Windsor Samoan Assembly of God
		Erskine Park	Erskine Park High School Ridgeview Crescent Reserve Spica Place Reserve Capella Street Reserve Two other unnamed parks
	Orchard Hills	Orchard Hills	Croatian Club Bosna Samuel Marsden Reserve
	Luddenham Road	Luddenham	*None*
	N/A, areas of suburb adjacent to trenching route	Kemps Creek	Christadelphian Heritage College Sydney Kemps Creek Public School Kemps Creek Rural Fire Brigade Bill Anderson Park
Liverpool	Airport Business Park	Badgerys Creek	*None*
	Airport Terminal		
	Aerotropolis Core	Bringelly	*None*

4.1.5 Community engagement

Community engagement outcomes are detailed within Chapter 5 (Stakeholder and community engagement) and Appendix D of the Environmental Impact Statement.

Stakeholder consultation undertaken to inform the Western Sydney Rail Needs Scoping Study and to better understand the rail needs of Western Sydney International and the Western Sydney region, indicated that the current inability to travel easily and quickly between the growth precincts of Western Sydney is a deterrent to the use of public transport and the lack of connectivity within the region and long journey times by public transport encourage many to use their private car on a daily basis to reach their destinations.[1]

In addition to earlier stakeholder consultation, Sydney Metro has undertaken online surveys in February/March and July 2020. These online surveys have been made available to the general public.

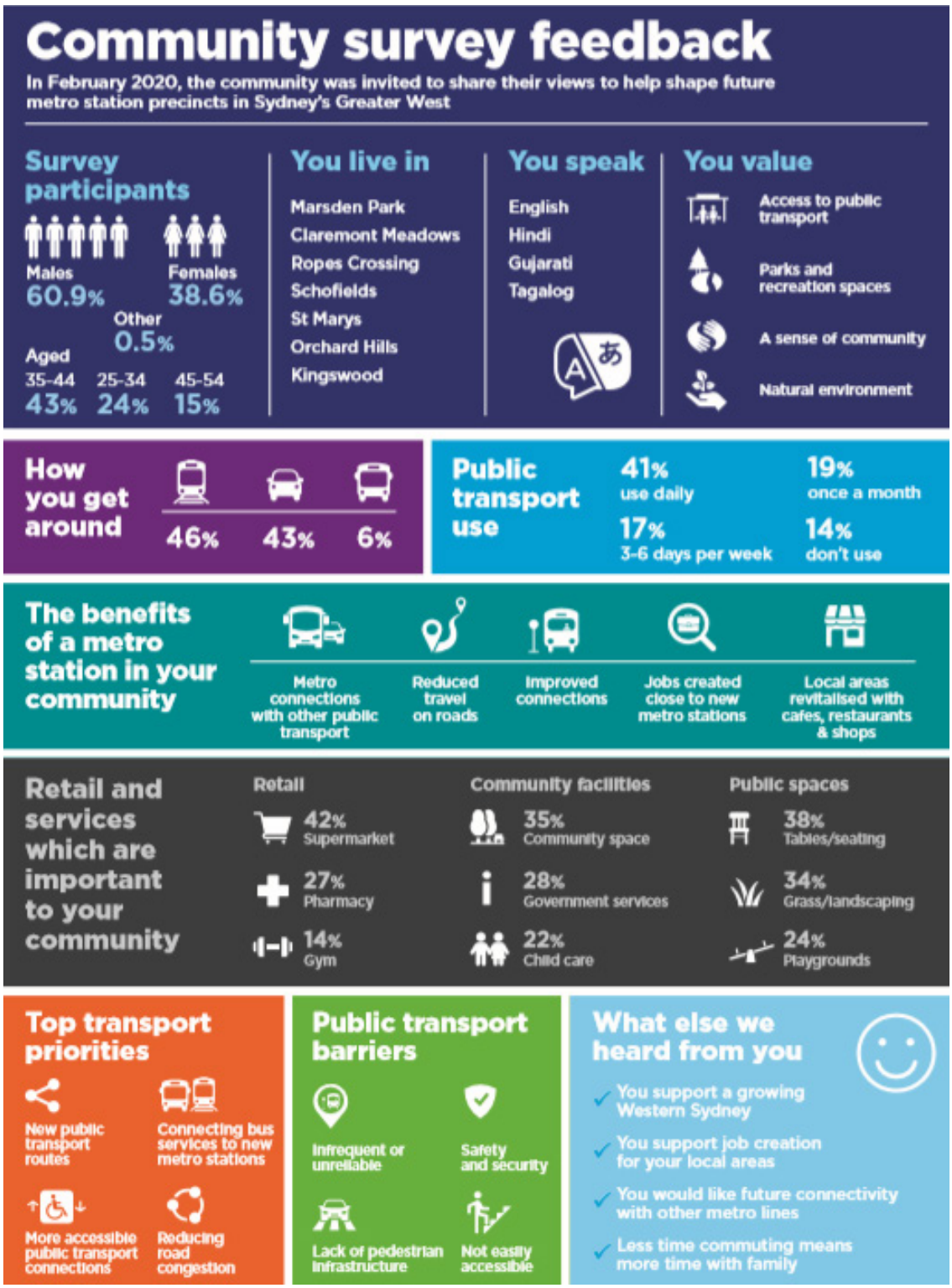
Full details for both surveys are provided in Chapter 5 (Stakeholder and community engagement) of the Environmental Impact Statement, as indicated above. Where relevant, concerns regarding changes associated with the project have been incorporated into the assessments in Chapter 5 and Chapter 6.

This section focuses on the results of the February/March 2020 survey.

An extract of a summary of findings for the February/March 2020 survey is provided in Figure 4-7. It is noted that survey questions did not explicitly investigate concerns regarding the construction of the project, with the bulk of responses addressing the broader operation of the project and its place within the wider Greater Sydney public transportation network.

[1] A range of potential solutions to address these challenges has been proposed. Under the Western Sydney City Deal, the NSW Government have committed to a rapid bus connection between the Airport, the new Aerotropolis and Liverpool's CBD in time for Western Sydney International's opening in 2026. The Western Sydney Infrastructure Plan (WSIP), specifically the package Western Sydney Airport, includes the construction of the future M12 Motorway, a new east-west motorway between the M7 Motorway near Cecil Hills and the Northern Road at Luddenham, as well as the upgrade of the Northern Road and Bringelly Road. It is expected that future M12 Motorway will serve as the major access route to the Western Sydney Airport and connect to Sydney's motorway.

Figure 4-7: Summary of Februrary/March 2020 survey responses



Source: Sydney Metro

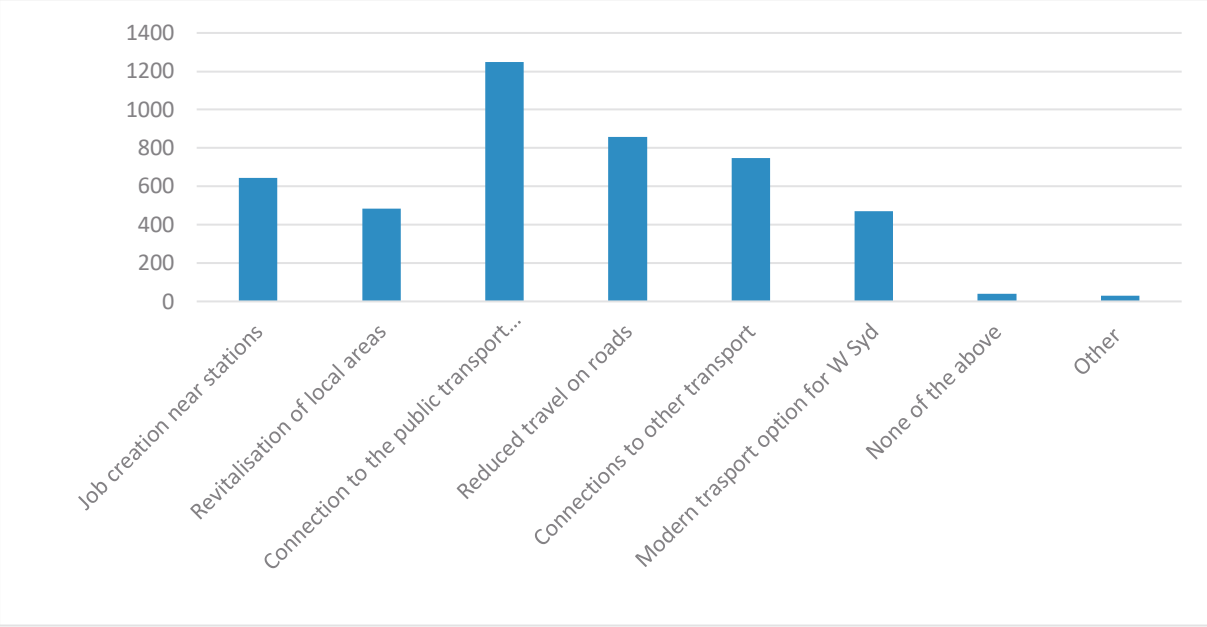
Of all respondents, 71 per cent lived in the Blacktown LGA, 22 per cent live in Penrith LGA, two per cent lived in the Blue Mountains LGA, one per cent lived in Camden LGA and one per cent lived in Liverpool LGA. When asked what they valued most about the suburb they lived in, 932 respondents nominated access to public transport – the highest of all items nominated followed by walking and cycling links (912 responses), local heritage (790 responses) and the natural environment (786 responses).

The most common mode of transport use for respondents was train (46 per cent) closely followed by driving (43 per cent). Forty-one per cent of respondents indicated they used public transport daily and another 17 per cent used it between three and six days per week and a further 10 per cent using public transport between one and two days per week. Those catching public transport infrequently were asked about the barriers to public transport. The most common reason for not catching public transport was infrequent transport services. Around six per cent of respondents indicated that public transport did not support their travel requirements because they needed to drop children at childcare or school before/after work, or they needed to travel to multiple locations throughout the day for work. A further six per cent said there is no direct route to their destination and four per cent said they either prefer to drive or require a car for work.

When asked to identify transport priorities for the future, 23 per cent of respondents indicated more frequent connecting bus services as their top priority. Twenty-two per cent said new public transport routes were important and 20 per cent said more accessible public transport connects were needed.

Most respondents felt that having a metro station in their community would help connect them with Sydney's public transport system (1,248 responses). They also felt that it would reduce travel on roads (859 responses), improve connections with other transport nodes (748 responses) and create jobs (644 responses).

Figure 4-8: Survey responses on the perceived benefits of a metro station



The survey asked what services, retail and spaces participants considered important to be able to access within local communities such as at a metro station. The most common responses were supermarket (42 per cent), pharmacy (27 per cent) and gym (14 per cent). Other uses nominated were dry cleaners, cafes, retailer, restaurants, public open space, beauty services, post office, newsagent and parking. Some respondents preferred their local area to stay as it is.

When asked what community facilities should be located at stations, respondents suggested community spaces (35 per cent), government services (28 per cent) and child care facilities (22 per cent). Other suggestions included

a dog park and children's play area, public gardens, parking, police station/presence, public toilets, sporting facilities, secure bike storage and nursing facilities for women and babies.

The survey respondents indicated that public spaces near stations should comprise seating/tables (38 per cent), grass and soft landscaping (34 per cent) and playgrounds (24 per cent).

The question "*what if any, potential changes are you most concerned about from having a metro line built in your area?*" elicited a wide variety of responses. Some were very positive about the Project, while others commented on the station locations (34 per cent) and included suggestions for desired locations, support or objections for known station locations. A further 10 per cent of all additional comments related to parking facilities. Other comments included ensuring sufficient infrastructure to support the metro, making sure stations are accessible and consider people with a disability and vulnerable people and having sufficient transport links (buses, heavy rail) to get to and from stations.

In reference to the existing environment, respondents generally valued the current level of development and natural qualities/open space in their respective areas. In the context of the existing infrastructure, respondents cited poor existing public transport options and local road congestion.

4.2 Suburb characteristics

The characteristics of the suburbs within the study area are discussed in the sections below. Each section includes a summary of the suburb, a demographic snapshot and a review of social infrastructure.

Demographic information considered includes:

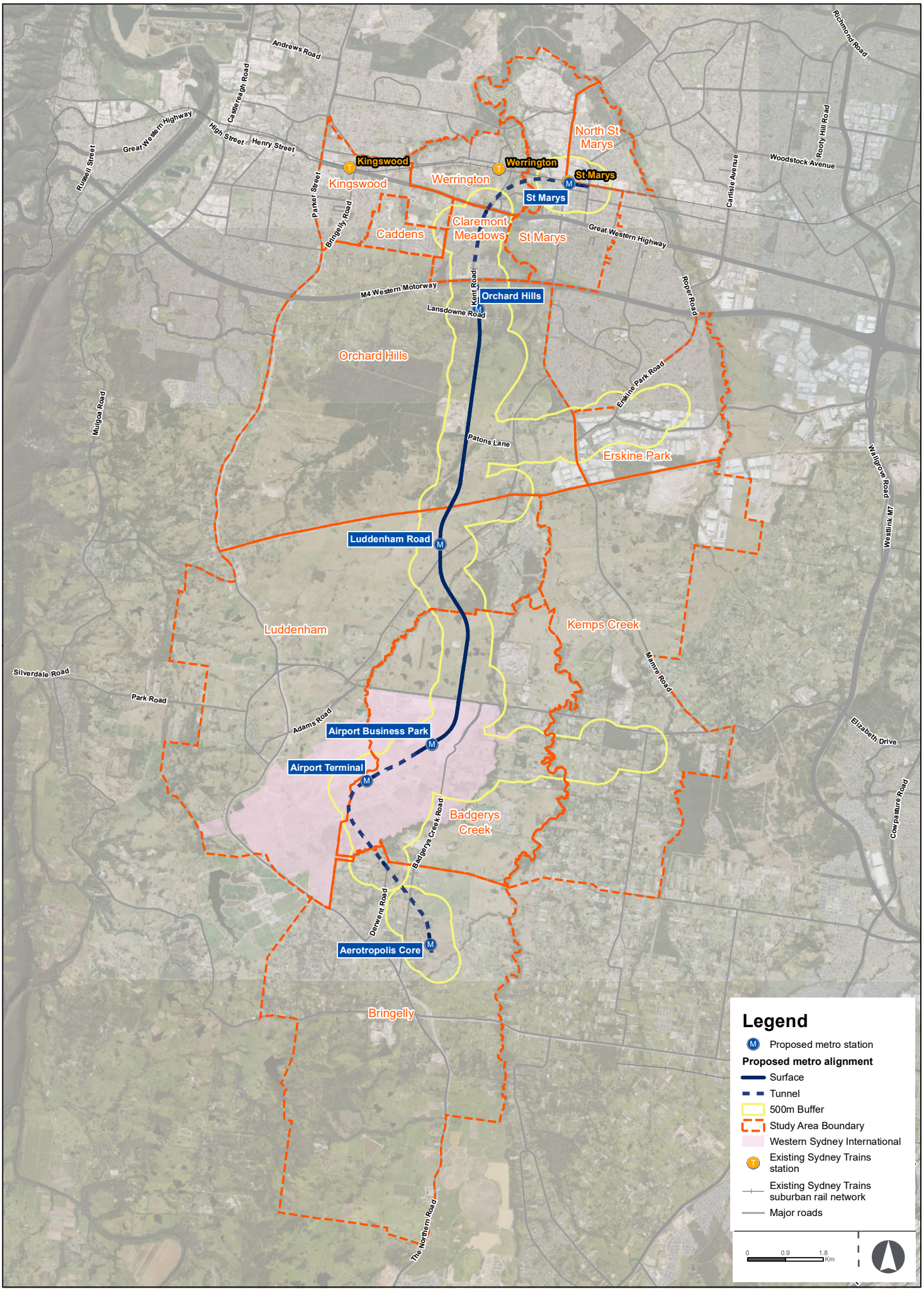
- age structure
- Aboriginal and Torres Strait Islander populations
- Cultural and Linguistic Diversity characteristics
- household sizes and structures
- income and education level
- transport methods.

Additional demographic information for each suburb is provided in Appendix A.

Social infrastructure considered includes:

- schools and education facilities
- child care centres
- aged care facilities
- community facilities
- open space and recreation facilities
- emergency services
- healthcare
- places of worship
- function centres.

Figure 4-9 shows the location of suburbs in the study area.



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Suburbs within study area

Figure 4-9

4.2.1 North St Marys

The suburb of North St Marys is located to the north of the project area within the Penrith LGA (see Figure 4-9). North St Marys is an extension of the adjoining suburb of St Marys. While North St Marys may not be directly impacted by the project, residents are likely to be indirectly impacted by the project through impacts such as changed access during construction. The floodplains of the Nepean River and the Ropes Creek provides accessibility for walking and cycling in the suburb. The open space surrounding the Ropes Creek Corridor forms an eastern boundary with the suburb.

The suburb of North St Marys has strong connections to the St Marys Town Centre, which is mostly contained between the Main Western Railway to the north and the Great Western Highway to the south. The suburb is well serviced by the Main Western Railway, which provides relatively high frequency services during peak periods as well as a good spread of services throughout the day.

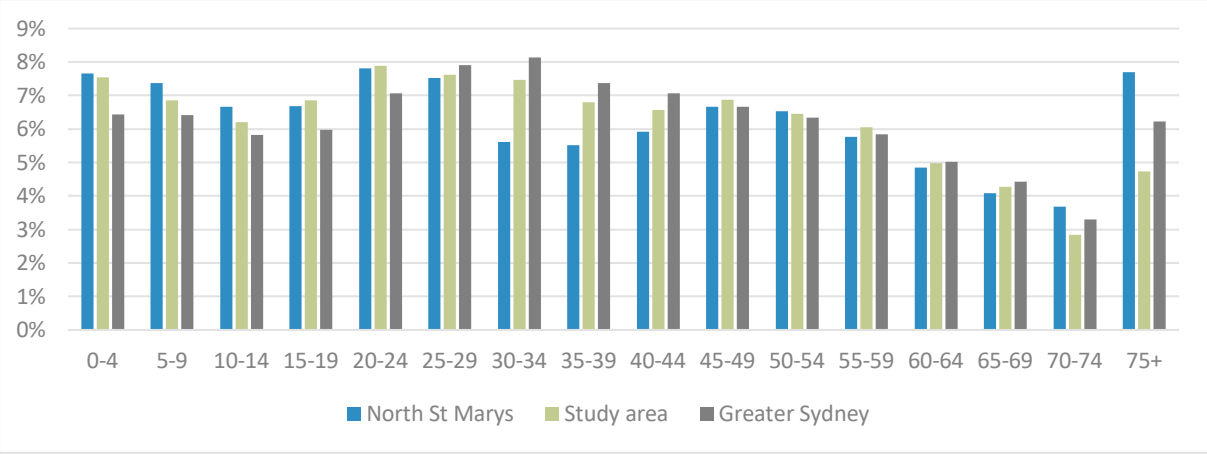
An area of industrial development is located immediately north of the Main Western Railway in North St Marys. Additional residential development is situated north of the North St Marys Industrial Area, bounded by Glossop Street, Forrester Road and Kurrajong Road, north of the railway. The railway is perceived as a physical barrier separating St Marys centre from North St Marys.

The proposed St Marys Station would provide an interchange with the T1 Western Line. While North St Marys may not be directly impacted by the project, residents in this suburb are likely to be regular users of the existing St Marys Station.

Demographic profile

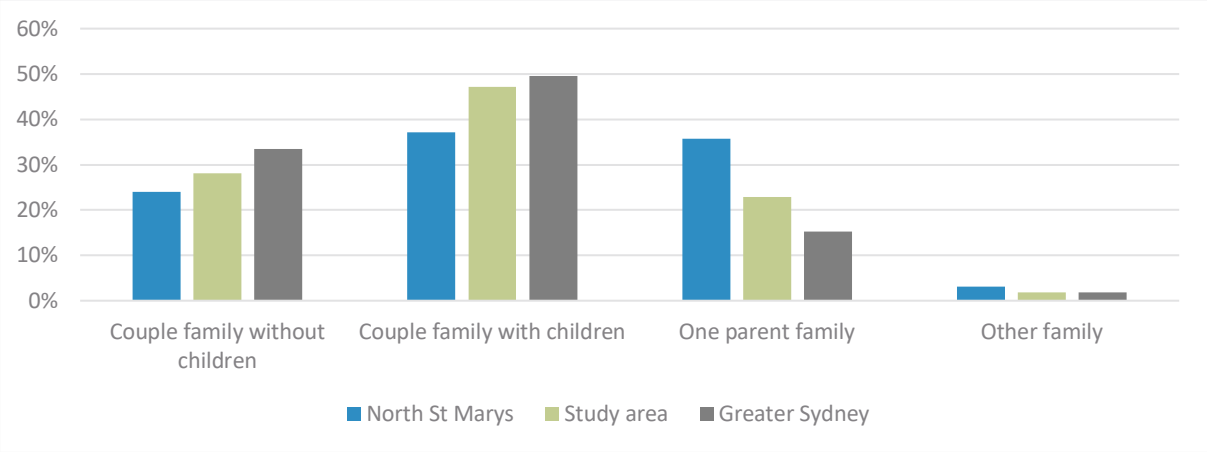
In 2016, the usual resident population of North St Marys was 3,921 people, living in 1,452 dwellings with an average household size of 2.7 people. By 2036, the population of North St Marys is expected to reach 4,032, an average annual increase of 0.5 per cent.

Figure 4-10: North St Marys age structure



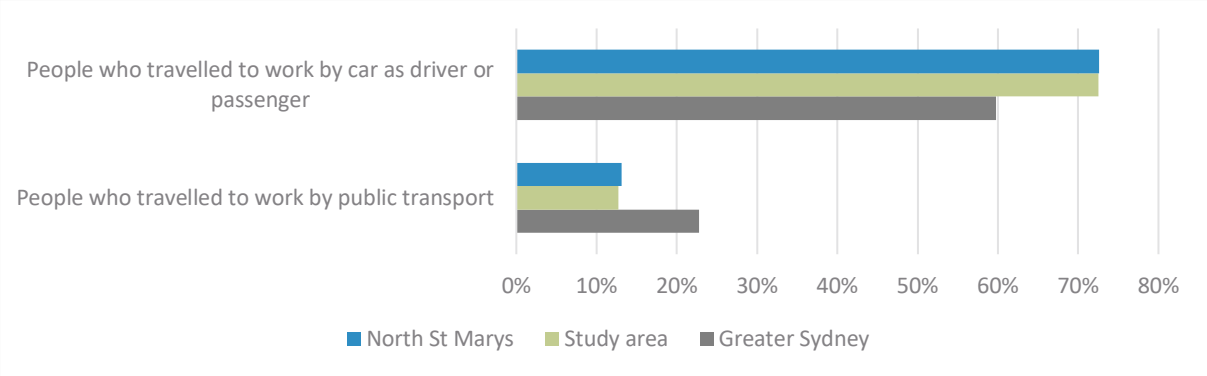
Source: ABS Tablebuilder data, 2016 Census

Figure 4-11: North St Marys household type



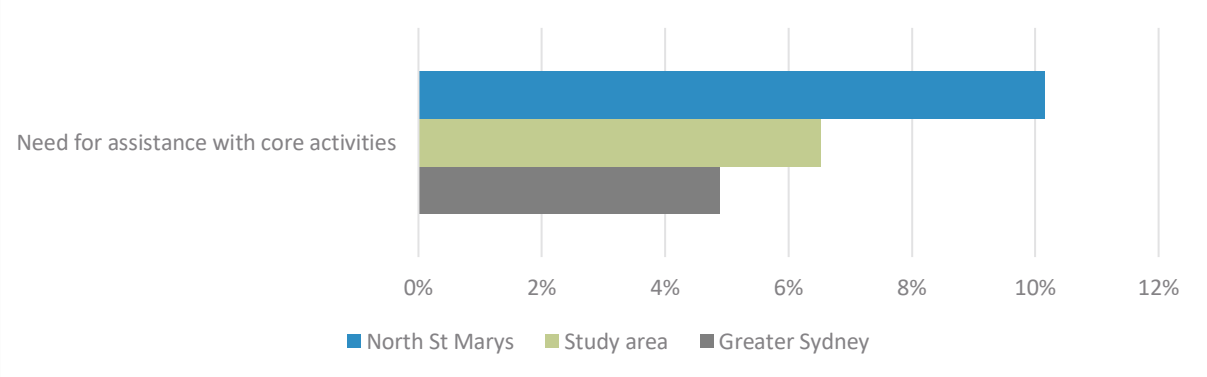
Source: ABS Tablebuilder data, 2016 Census

Figure 4-12: North St Marys journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-13: North St Marys need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the North St Marys community is characterised by:

- lower proportions of children (15.3 per cent compared to 18.7 per cent) and a higher proportion of people 65 years and over (15.5 per cent compared to 13.9 per cent)
- significantly higher proportions of Aboriginal and Torres Strait Islander population (8.6 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 24.8 per cent of residents born overseas (compared to 39.1 per cent) and with 26.7 per cent of residents speaking a language other than English (compared to 41.6 per cent)
- smaller than average household sizes with 2.7 persons per household (compared to 2.8 persons per household) and a higher proportion of lone person households (24.2 per cent compared to 21.6 per cent)
- a low proportion of couples with children (37 per cent compared to 49.5 per cent)
- a low median weekly household income at $1,097 (compared to $1,750) and more than double unemployment rate at 12 per cent (compared to 6 per cent)
- low educational attainment, as half of the residents do not have a qualification (55.5 per cent compared to 37.7 per cent) and with almost half of residents having completed Year 12 or equivalent (with 31.1 per cent compared to 60 per cent)
- high levels of disadvantage based on a SEIFA Index or Relative Social Disadvantage score of 99 within NSW and residents identifying as requiring need for assistance with core activities (10.2 per cent compared to 4.9 per cent)
- low levels of public transport use for travel to work (13.1 per cent compared to 22.8 per cent)
- a high proportion of people travelling to work by car as a driver or passenger (72.6 per cent compared to 59.8 per cent).

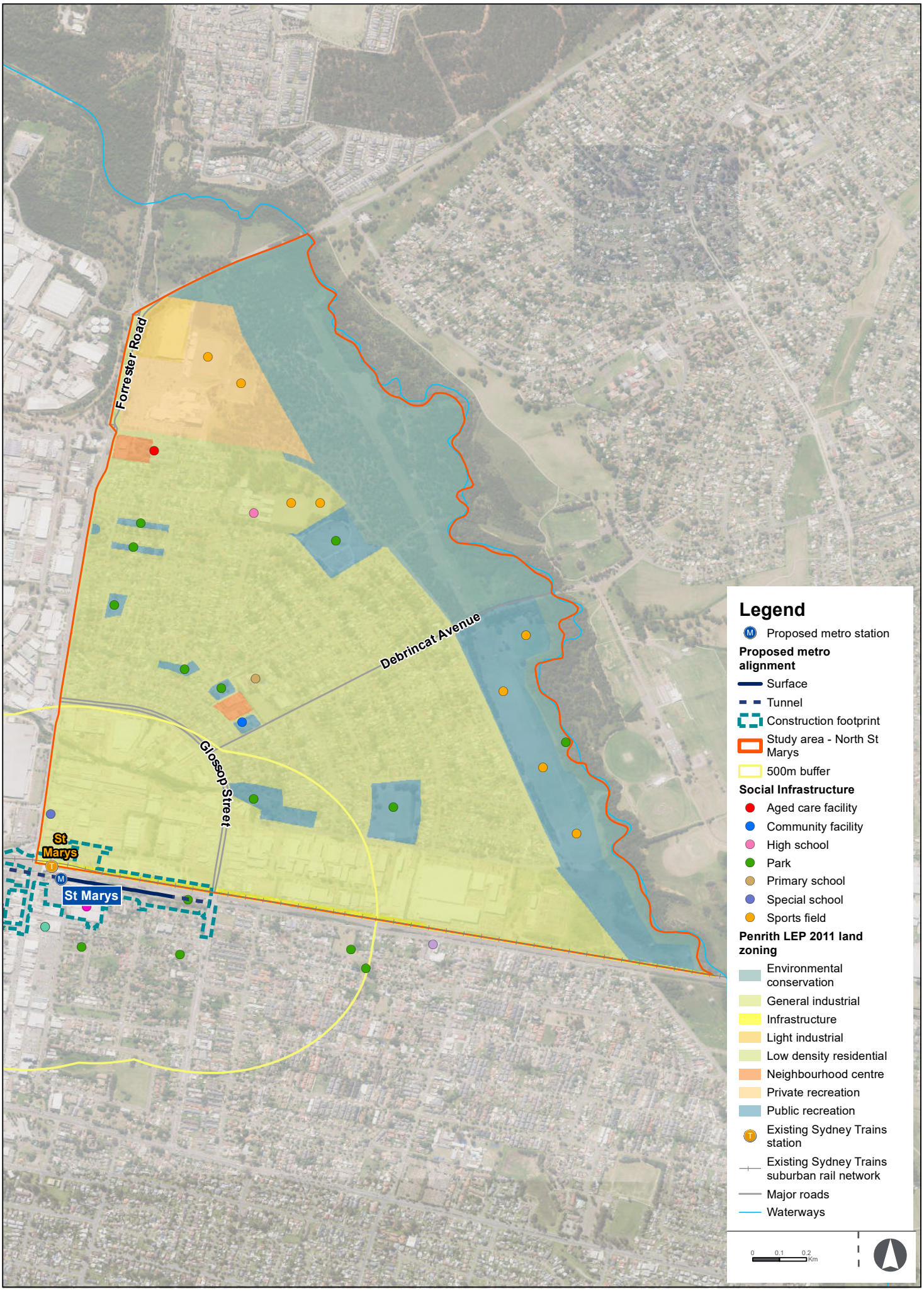
Social infrastructure

Social infrastructure in North St Marys is listed in Table 4-3 and shown in Figure 4-12.

Table 4-3: Social infrastructure in North St Marys

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
St Marys North Public School	24 - 40 Willow Road	Enrolment of 386 students, catering for Kindergarten to Year 6. Located approximately 800 metres from the existing St Marys Station.	No
Chifley College Dunheved Campus	124A Maple Road	Enrolment of 327 students, catering for Year 7 to Year 10. Located approximately 1,400 metres from the existing St Marys Station.	No
St Marys Flexible Learning Centre	63 Forrester Road	St Marys Flexible Learning Centre is part of Edmund Rice Education Australia Youth+. It works with young people who are vulnerable and experience a complexity of interrelated needs, from a variety of language, cultural and religious backgrounds, with sensitivity to First Nations culture, and from backgrounds of socio-economic disadvantage. Approximately 200 metres from the existing St Marys Station. Enrolment of 66 students in 2018.	Yes
Community facility			
North St Marys Neighbourhood Centre	Cnr Debrincat Avenue & Oleander Road	Community organisation and community centre (playgroup, sport, hall hire). Located approximately 600 metres from the existing St Marys Station.	No
Open space, sport and recreation			
Boronia Park	Boronia Road	Includes 5 rugby league fields, Cricket oval - synthetic wicket, 16 grass netball courts and associated amenities. Located approximately 1,200 metres from the construction footprint.	No
Whalan Reserve (partial)	Debrincat Avenue	A variety of sport and recreation activities are played at Whalan Reserve including rugby league, football, AFL and cricket. Local recreation clubs include NSW Rocketry Association and Whalan Model Car Club. The area also features playground equipment and walking paths. Located approximately 1,600 metres from the existing St Marys Station.	No
St Marys Leagues Stadium	Forrester Rd & Boronia Rd,	Located at the northern end of St Marys Rugby League Club's premises, St Marys Leagues Stadium (formerly known as Western Weekender Stadium) has a 520-seat grandstand which also includes corporate facilities for a further 200, and	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
		ground capacity of 7,000 people. The stadium hosts many major sporting attractions. Located approximately 1,800 metres from the existing St Marys Station.	
St Marys Indoor Sports & Recreation	20 Forthorn Place	Four court indoor sports centre that hosts numerous Indoor Cricket, Soccer, Netball and Touch Football competitions. Located approximately 250 metres from the existing St Marys Station.	Yes
Robin Wiles Park	Corner of Maple Road and Sycamore Street	Local park. Located approximately 1,400 metres from the existing St Marys Station.	No
Tobruk & Warrego Street Reserve	Tobruk & Warrego Street	Modern multi age playground. Located approximately 900 metres from the existing St Marys Station.	No
Poplar Park	Poplar Street	Modern multi age playground. Located approximately 850 metres from the existing St Marys Station.	No
Wattle Avenue Reserve	Wattle Avenue	Modern multi age playground. Located approximately 800 metres from the existing St Marys Station.	No
Aged care			
Boronia House	183-197 Boronia Road	123 bed High Care Facility located in Western Sydney offering single and double accommodation.	No



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Social infrastructure near the project at North St Marys

Figure 4-14

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4.2.2 St Marys

The suburb of St Marys is in the northern extent of the project area within the Penrith LGA. Blacktown City in the north bounds St Marys, generally by Forrester Road, the Main Western Railway, Sydney Street and Marsden Road in the east, the Western Motorway in the south, and South Creek in the west.

The suburb is bounded by two creeks of community significance: South Creek to the west, forming the boundary with Werrington, and Ropes Creek to the east, forming the boundary with Blacktown LGA. The South Creek corridor comprises areas of open space, incorporating the Kingsway Playing Fields, a BMX Track, tennis courts and soccer fields immediately to the west of the St Marys Town Centre. Open space surrounding the Ropes Creek Corridor forms an eastern boundary with the suburb of North St Marys.

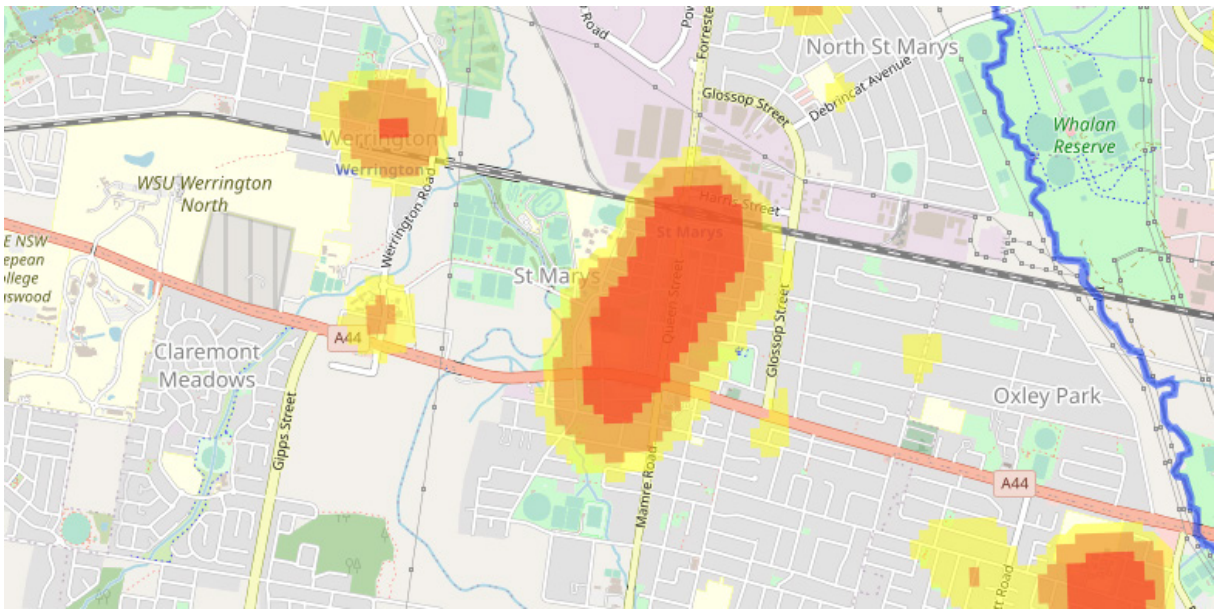
St Marys is also accessible from the M4 Western Motorway, the Main Western Railway (which provides relatively high frequency services during peak periods as well as a good spread of services throughout the day), and the Great Western Highway. The railway provides an eastern connection into Sydney city via Parramatta, and a western connection to the Blue Mountains and Central Western NSW via Penrith. Notable infrastructure in the suburb includes the Western Sydney University's Penrith Campus and the Western Sydney Institute of TAFE.

Historically, St Marys has been defined by its position on the Great Western Highway and Great Western Railway. St Marys Railway Station and the associated heritage items in the St Mary's Railway Station Group are important artefacts of that local history and the importance of the area to the growth of rail transport in Grater Sydney.

St Marys has been identified as a future strategic centre as part of the *Greater Sydney Region Plan* (Greater Sydney Commission, 2018a). As an established local centre within western Sydney, St Marys continues attracting high-density development including The Quarter, Penrith's Health and Education Precinct, which is currently being planned to drive significant jobs growth, educational opportunities and improved health outcomes for the community in the area.

Crime statistics are maintained by NSW Bureau of Crime Statistics (BOCSAR). The 'Year to March 2020' rate of reported non-domestic assaults in St Marys was 1,131 per 100,000. The Penrith rate was 535 per 100,000. As shown in Figure 4-15, BOCSAR data indicates that St Marys has a higher frequency of recorded non-domestic assault incidents. These incidents are generally along Queen Street, including the area around the existing St Marys Station.

Figure 4-15: Incidents of Assault (Non-domestic assault) April 2019 to March 2020



Source: BOCSAR incidents recorded between April 2019 and March 2020

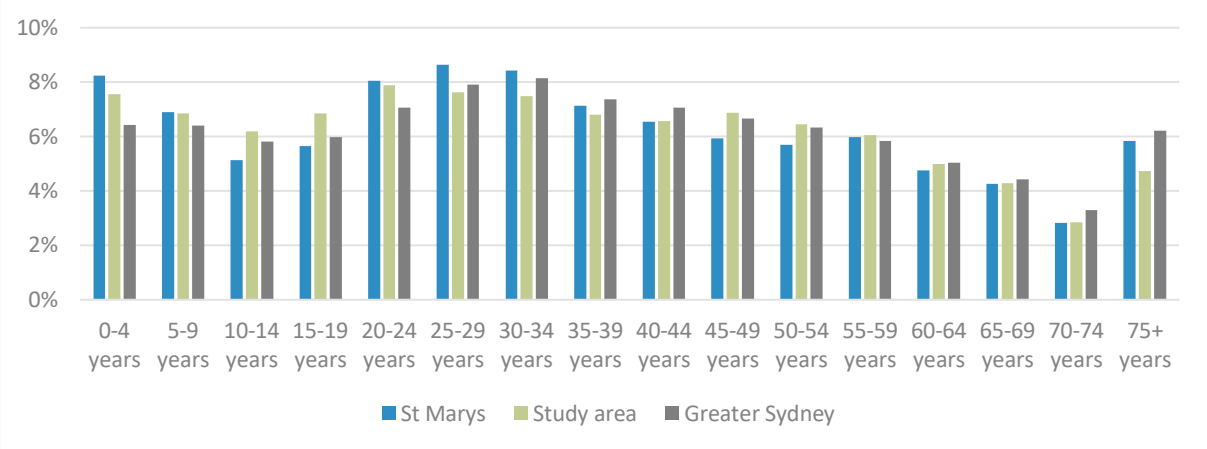
Demographic profile

The usual resident population of St Marys in 2016 was 12,195 people, living in 5,103 dwellings, with an average household size of 2.6 people.

Compared to Greater Sydney, the St Marys community was characterised by:

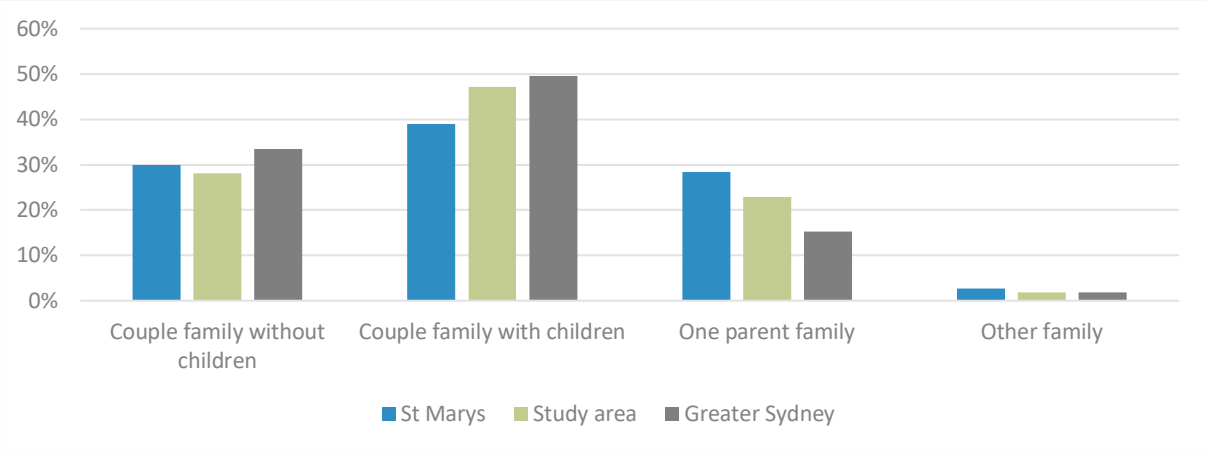
- high proportions of children (20.3 per cent compared to 18.7 per cent) and similar proportions of people aged 65 years and over (12.9 per cent compared to 13.9 per cent)
- a high proportion of Aboriginal and Torres Strait Islander population (4.1 per cent compared to 1.5 per cent)
- low levels of cultural diversity, with 34 per cent of residents born overseas (compared to 42.9 per cent) and with 36.3 per cent of residents speaking a language other than English (compared to 41.6 per cent)
- smaller than average household sizes with 2.6 persons per household (compared to 2.8 persons per household) which would be due to a higher proportion of lone person households (29 per cent compared to 21.6 per cent)
- a significantly lower proportion of couples with children (39 per cent compared to 49.5 per cent)
- low median weekly household income at $1,190 (compared to $1,750) and higher unemployment rate at 9.4 per cent (compared to six per cent)
- low educational attainment with 41.2 per cent of residents having completed Year 12 or equivalent compared to Greater Sydney (60 per cent)
- high levels of disadvantage based on a SEIFA Index of Relative Socio-economic Disadvantage percentile of nine amongst suburbs in NSW
- significantly higher proportion of residents requiring assistance with core activities (8.2 per cent compared to 4.9 per cent)
- low levels of public transport use for travel to work (16 per cent, compared to 22.8 per cent)
- a high proportion of people travelling to work by car (72.1 per cent compared to 59.8 per cent).

Figure 4-16: St Marys age structure



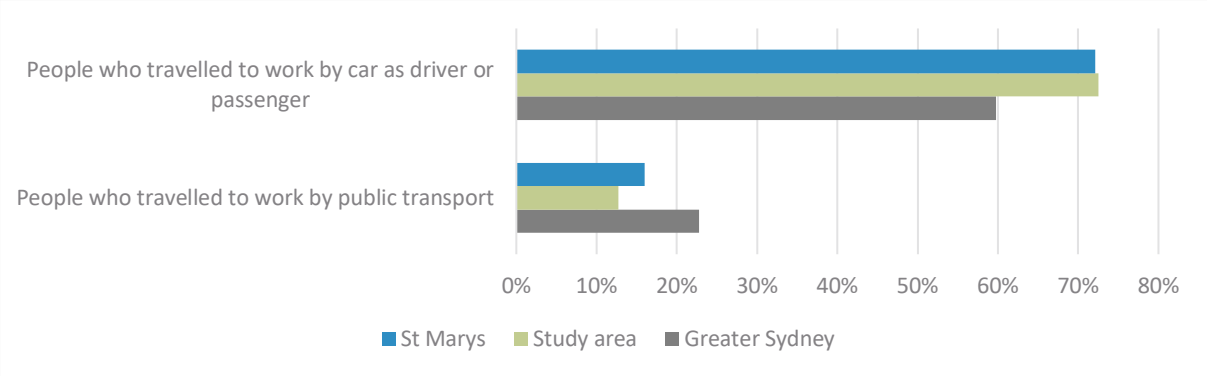
Source: ABS Tablebuilder data, 2016 Census

Figure 4-17: St Marys household type



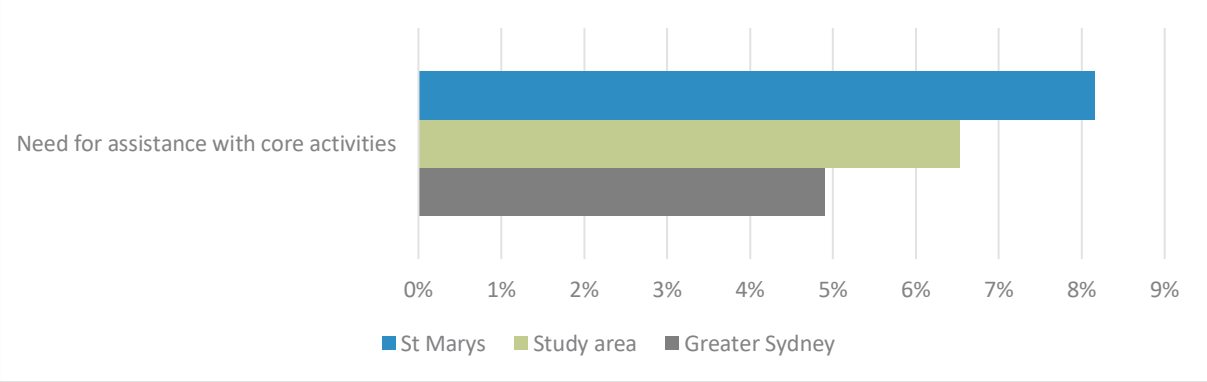
Source: ABS Tablebuilder data, 2016 Census

Figure 4-18: St Marys journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-19: St Marys need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Land use and social infrastructure

St Marys is uniquely positioned as a commercial and business district. Residential areas within the suburb of St Marys are situated directly east of the Town Centre, and east and west of Mamre Road south of the Great Western Highway.

St Marys Town Centre is one of the two main retail/commercial centres in the Penrith LGA and is located 47 kilometres from Sydney's CBD, approximately mid-way between the Penrith City Centre and the Mount Druitt town centre, in neighbouring Blacktown LGA. The St Marys Town Centre has traditionally served as a local or district retail centre for the nearby residential areas. It is surrounded primarily by residential, education and open space and recreation areas adjacent to South Creek in the west.

The town centre is identified in the Penrith LEP as land with 'scenic and landscape values.' The desired character for the town centre includes 'primary visual backdrop', 'garden suburb', 'Iconic place: Community centre of excellence' and 'Urban: City centre' (Penrith City Council, 2006) (refer to Technical paper 8 (Landscape and visual)) of the Environmental Impact Statement.

A mix of low to medium density, multi-unit residential developments are near the existing St Marys Station and to the east of the town centre. Outside the St Marys Town Centre, the land use transitions to a more residential urban setting around the suburbs of Werrington, Claremont Meadows and Caddens. Patches of bushland and open space are also scattered, with some smaller rural land uses.

The land uses for the area adjacent to the construction and operational footprint of the project are described in Chapter 14 (Land use and property) of the Environmental Impact Statement. As discussed in Chapter 8 (Project description – construction) of the Environmental Impact Statement, it is understood that a separate project is being investigated that would increase commuter parking at the Harris Street commuter parking structure. This project is not considered as part of this SEIA but provides context for planned infrastructure in the area.

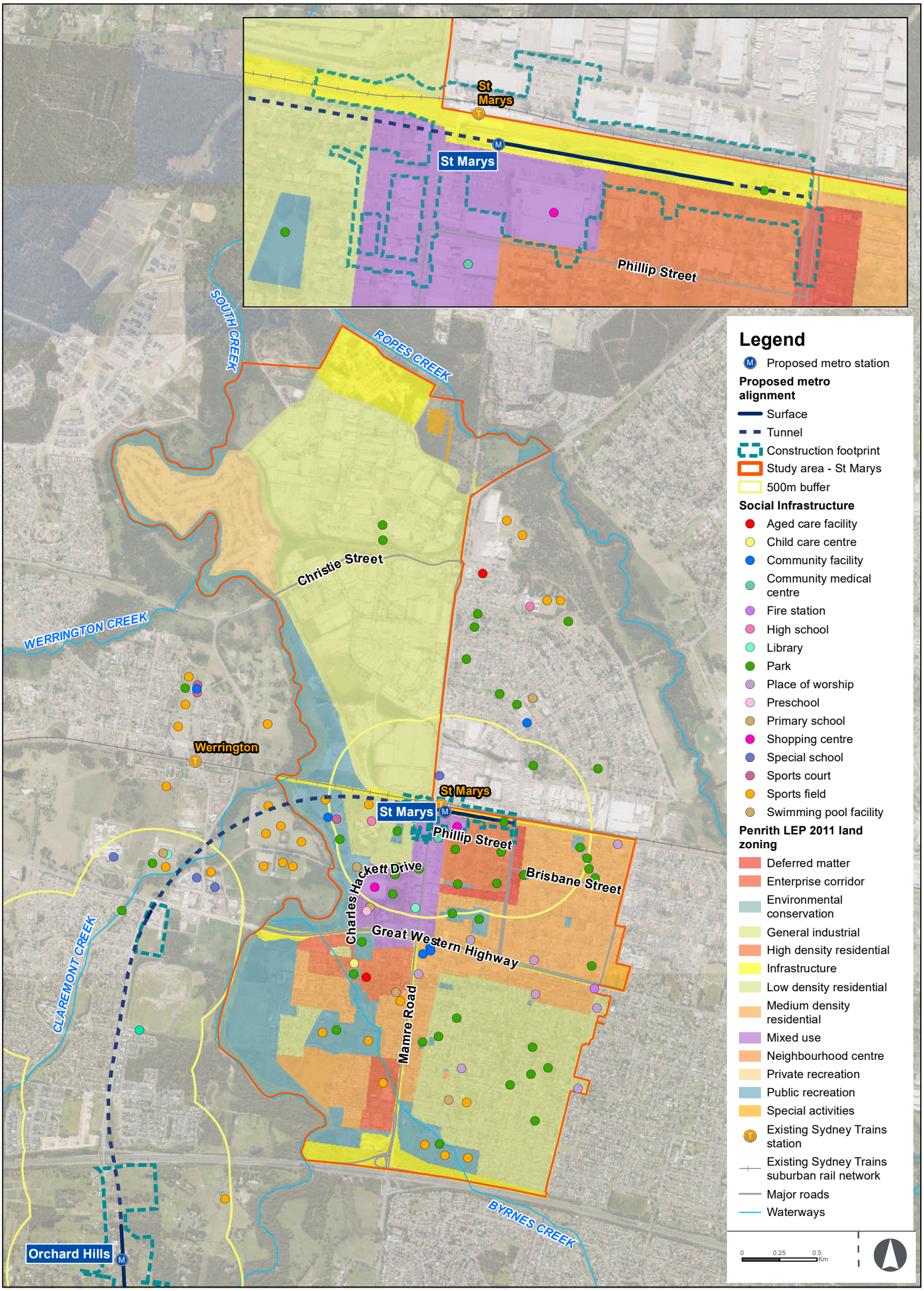
Social infrastructure near in St Marys is listed in Table 4-4 and shown in Figure 4-15.

Table 4-4: Social infrastructure in St Marys

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
St Marys Senior High School	Kalang Avenue	Enrolment of 897 students, catering for Secondary School, including Year 11 to Year 12. Approximately 450 metres from the existing St Marys Station.	Yes
St Marys Public School	Princess Mary Street	Enrolment of 262 students, catering for Kindergarten to Year 6. Approximately 850 metres from the existing St Marys Station.	No
Our Lady of The Rosary Primary School	Saddington Street	Systemic Catholic School with enrolment of 359, catering for Kindergarten to Year 6.	No
St Marys South Public School	Monfarville Street	Enrolment of 324, catering for Kindergarten to Year 6.	No
Child care			
Blue Bird Early Education	15 Station Street	Not yet commenced operations. Vacancies: N/A	No
Busy Bees Long Day Care	146 Glassop Street	Long day care; 0-6 years; 7am to 6pm Mon-Fri Vacancies: N/A	Yes
Koala Corner Children's Centre	Cnr Swanston Street and Collins Street	Long day care, Council operated long day care facility; 0-6 years; 7am to 6pm Vacancies: Yes	No
St Marys Blinky Bills Pre-school	263 Great Western Highway	Offers before school, after school, half day and full day sessions; 0-6 years; 6.30am to 5.30 pm Vacancies: No	No
St Pauls Lutheran Kindergarten	289 Desborough Road	Long day care; 25 months-6 years. 7am to 6pm. Vacancies: Yes	No
My First School Child Care Centre	36 Putland Road	Long day care; 0-6 years. 7am to 6pm. Vacancies: Yes	No
St Marys Children Centre	7 Collins Street	Pre-school; 3-5 years Vacancies: No	No
Smile Kids Family Day care scheme	2/167 Queen Street	0-12 years Vacancies: Yes	Yes
Young Explorers Early Learning Centre	143 Adelaide Street	Long day care; 0-5 years Vacancies: Yes	No
Evergreen Early Education Centre	68 Sydney Street	Long Day Care; 0-6 yeas; 7am to 6pm Vacancies: Yes	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Aged care			
SummitCare St Marys	Saddington Street	Aged Care Service. Approximately 1,300 metres from the existing St Marys Station	No
Open space, sport and recreation			
Ripples Leisure Centre Sports centre	Charles Hackett Drive, St Marys	Private sports centre with gym, indoor and outdoor pool. Located approximately 700 metres from the existing St Marys Station	Yes
Cook Park	Wilson Street, St Marys	Local park. Located approximately 1,600 metres from the existing St Marys Station	No
Monfarville Reserve	Shepherd Street	Located approximately 2,100 metres from the existing St Marys Station	No
Bennett Park	King Street	Local park. Located approximately 700 metres from the existing St Marys Station	Yes
Community facility			
St Marys Community Centre	Cnr Great Western Hwy & Mamre Road	Part of the St Marys Corner Community and Cultural Precinct. The facility is located under the same roof as St Marys Senior Centre and shares a carpark with St Marys Memorial Hall. It has capacity for 250 people maximum (hall) and 15 people maximum (meeting room). Located approximately 1,000 metres from the existing St Marys Station	No
St Marys Senior Citizens Centre	Cnr Great Western Highway & Mamre Road	Part of the St Marys Corner Community and Cultural Precinct. Built in 1979. It has a large hall with a separate dining area, commercial kitchen and two meeting rooms. It has capacity for 100 people (hall) and 30 people (each meeting room). Located approximately 1,000 metres from the existing St Marys Station	No
Don Bosco Youth Centre	Mamre Road	Part of the St Marys Corner Community and Cultural Precinct. It is independently run centre that can also be hired for private functions. Located approximately 1,000 metres from the existing St Marys Station	No
St Marys Library	Queen Street	St Marys Library is the second largest branch in the Penrith area. The Resources section and the Library Children's Inclusion Service are also housed at the library. Located approximately 750 metres from the existing St Marys Station	Yes

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Emergency services			
St Marys Fire Station	Marsden Road	Approximately 1,450 metres from the existing St Marys Station	No
Health			
St Marys Community Health Centre	Gidley Street	The health centre provides eight acute/palliative care beds, an Outpatient and Emergency service, physiotherapy and visiting services. Other services include Community Nursing, Day Centre and Home Help/Personal Care. On site is St Marys Medical Practice and Tasmanian Lymphodema Centre. Approximately 550 metres from the existing St Marys Station	Yes
Place of worship			
The Potter's House Christian Church St Marys	Phillip Street	Christian Church with service times on Sundays and Wednesdays. Approximately 200 metres from the existing St Marys Station	Yes
New Horizons Community Church	Great Western Highway	Christian Church with service times on Sundays and Wednesdays. Approximately 1,200 metres from the existing St Marys Station	No
St. Mary Magdalene's Anglican Church	Great Western Highway	Anglican Church with service times on Sundays and set in an 1840 historic building. Approximately 800 metres from the existing St Marys Station	No
Our Lady of the Rosary Church	Swanston Street	Catholic Church open every day. Approximately 1,100 metres from the existing St Marys Station	No
Ark of the Covenant Church	Bent Street	Approximately 1,600 metres from the existing St Marys Station	No
St Demetrios Greek Orthodox Church	Hobart Street	Greek Orthodox church. Approximately 1,000 metres from the existing St Marys Station	No
Function centre			
St Marys Memorial Hall	Cnr Great Western Highway & Mamre Road	Part of the St Marys Corner Community and Cultural Precinct. As Council's premier facility, this building features a large hall and stage (capacity for 380 people), dressing rooms, meeting rooms, 3-phase power and a commercial kitchen. Approximately 950 metres from the existing St Marys Station	No



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Social infrastructure near the project at St Marys

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Figure 4-20

Commercial uses

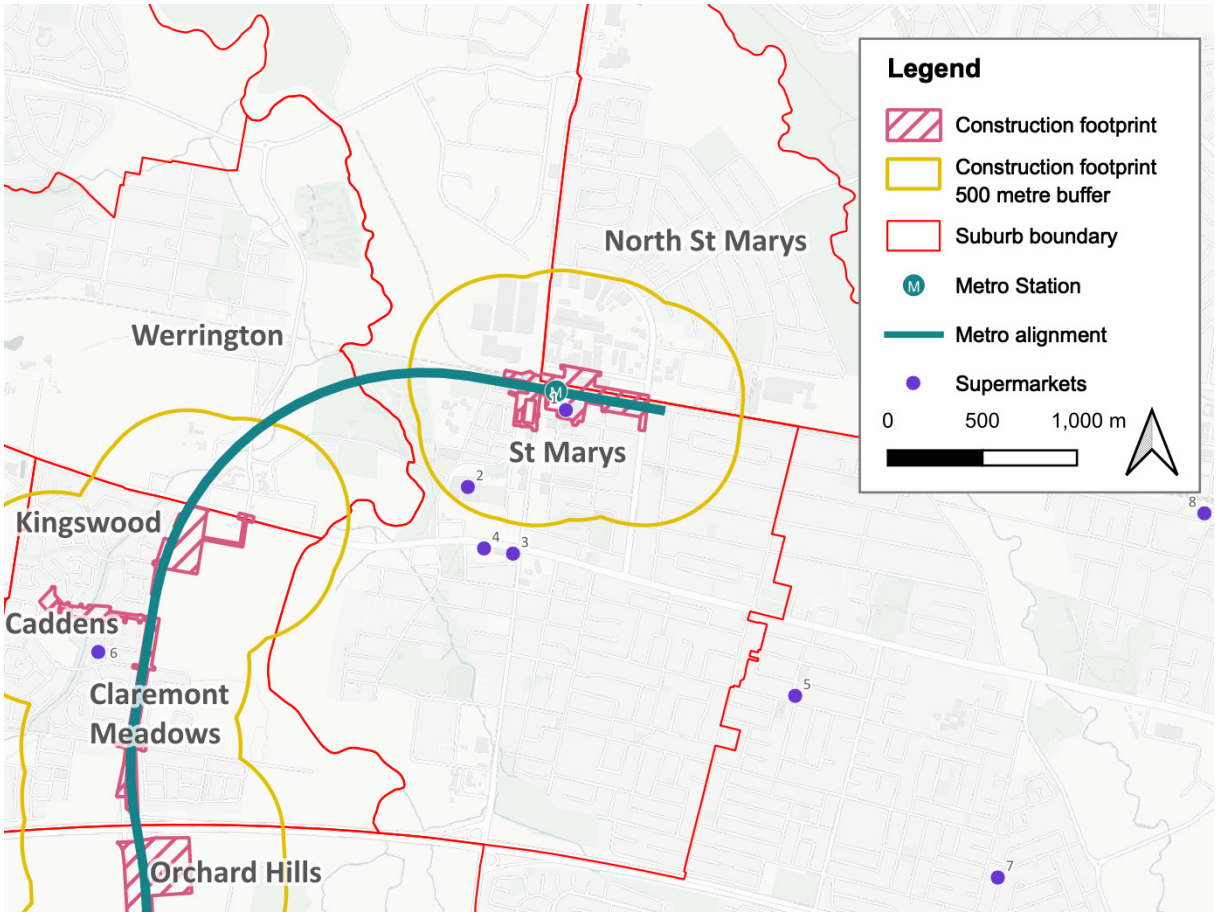
Station Plaza, a shopping arcade in providing convenience retail services, is located on Station Street, south of the existing St Marys Station. It includes a full service supermarket and other small specialised fashion and food retailers.

It is noted that a planning proposal is currently in progress at Station Plaza, which would increase height and floor space controls, potentially signalling an interest in redevelopment in the area.

A Coles supermarket is located in Station Plaza. Other supermarkets located within St Marys include Woolworths (which is located at the St Marys Village Shopping Centre, about 650 metres to the south-west of the existing St Marys Station) and Aldi (which is located about 900 metres to the south of the existing St Marys Station) (see Figure 4-21). Woolworths offers the closest comparable range of goods to the Coles supermarket in Station Plaza, however trades for slightly different hours from 7am to 10 pm daily.[2]

Woolworths and Aldi are generally located within walking distance of the existing St Marys Station. However, they may be too far away to be easily accessible for the elderly and people with a disability or with limited ability to carry heavy shopping bags, or workers and residents that live/work farther to the north or east of the existing St Marys Station.

Figure 4-21: Location of shopping facilities



The wider St Marys Town Centre currently provides around 11,000 square metres of supermarket and grocery floorspace. There is a current slight undersupply of supermarket retail floorspace in St Marys (see Table 5-4). This means that further reductions could impact on the overall retail spend in St Marys.

Table 4-5: Current supermarket/grocery floorspace supply vs demand (sqm)

	2018
Supply*	11,032
Demand	12,490
Over/undersupply (+/-)	-1,458

Source: HillPDA - *includes Woolworths, Coles, ALDI, IGA X-press and Jayam supermarket

St Marys Town Centre has an estimated retail floorspace of around 50,600 square metres including specialty retailers in St Marys Village and the traditional style retail strip around Queens Street which comprises around 155 premises[3]. This represents a diverse offer of smaller specialty retail shops.

Table 4-6: Current retail floorspace supply (sqm)

Location	Floorspace (sqm)
Station street Plaza	8,804
St Marys Village	15,832
Retail strip (including ALDI)	26,000
Total retail supply	50,636

Source: PCA shopping centre directory 2018, HillPDA

[3] SGS St Marys Village EIA 2013

4.2.3 Werrington

The suburb of Werrington is bound by Werrington Creek, John Oxley Avenue, Lethbridge Avenue and Reid Street in the north, South Creek in the east, the Great Western Highway in the south, and French Street and Victoria Street in the west.

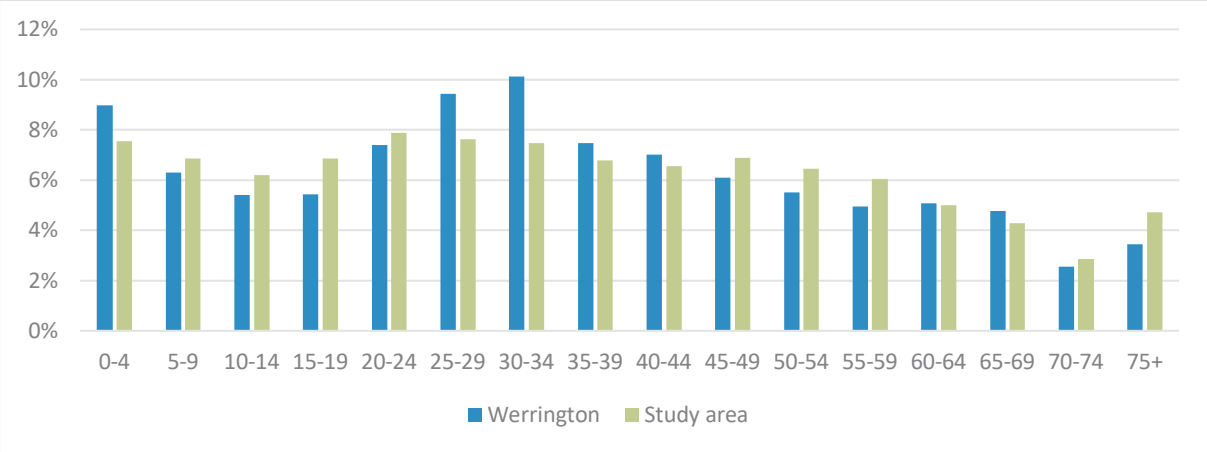
Werrington is an established town centre that continues to attract high density development (Penrith City Council Community Profile, 2018). Werrington is home to part of the Western Sydney University's Penrith Campus. Recent development in the suburb includes the Werrington Enterprise Living and Learning (WELL) Precinct. The Western Sydney University's Penrith Campus and the WELL Precinct extend to the neighbouring Kingswood suburb.

Werrington's heritage-listed sites include the Rose Cottage and Early Slab Hut. The suburb includes a commercial area near the Werrington Railway Station, which is located on the Main Western Line. It is serviced by the T1 Western line.

Demographic profile

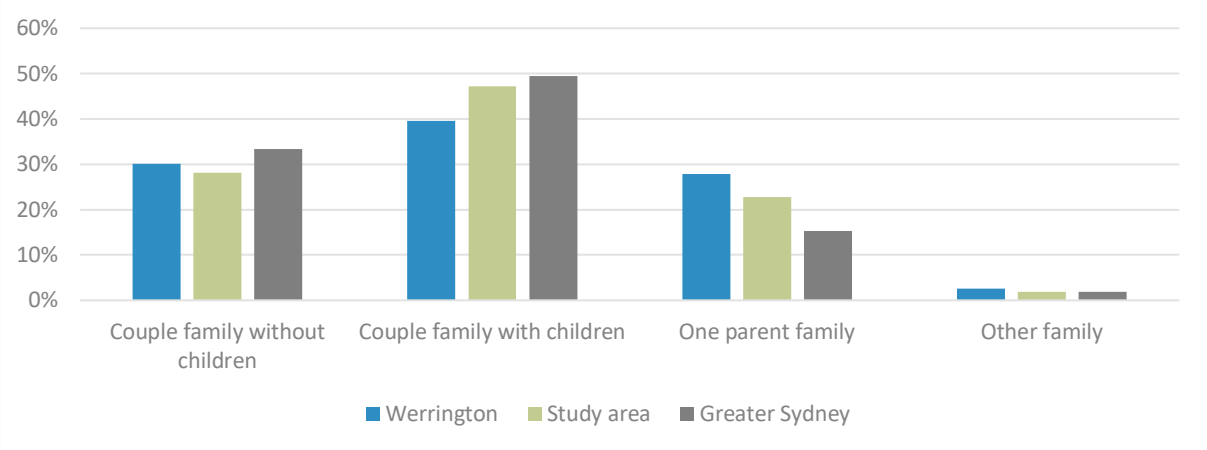
The usual resident population of Werrington in 2016 was 4,031 people, living in 1,734 dwellings with an average household size of 2.5 persons.

Figure 4-22: Werrington age structure



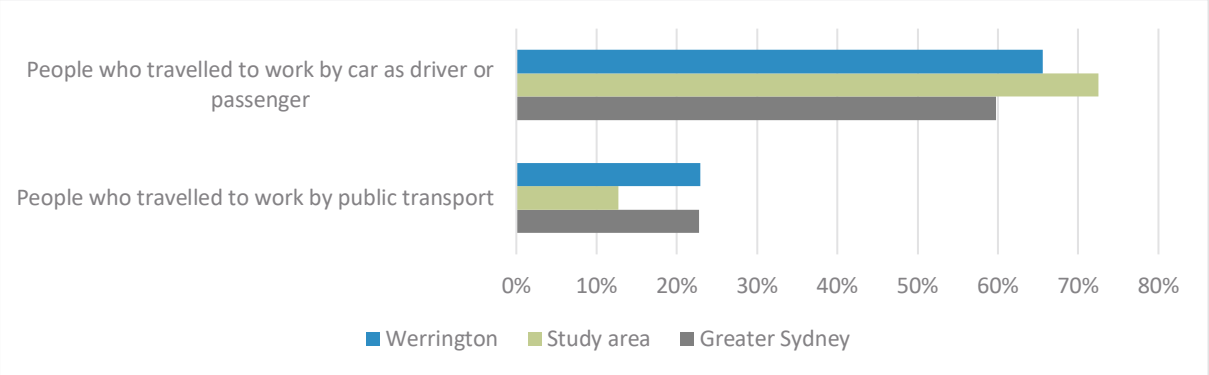
ABS Tablebuilder data, 2016 Census

Figure 4-23: Werrington household type



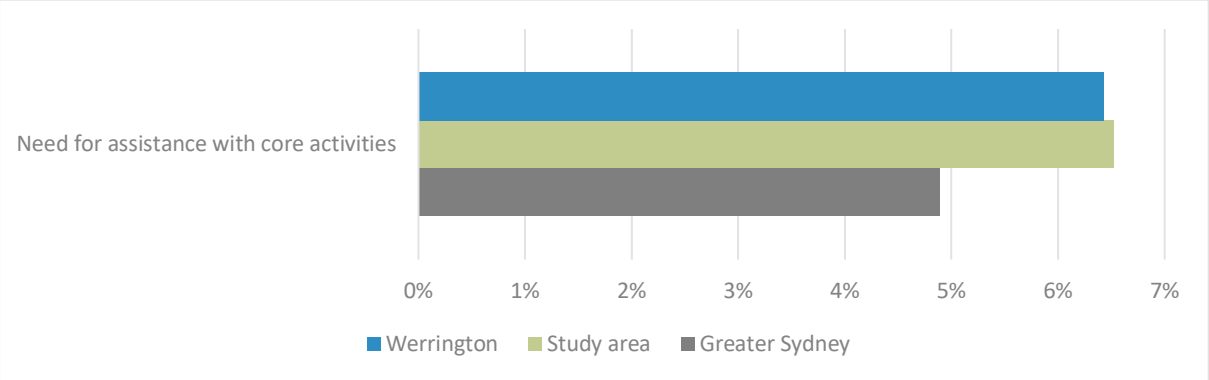
ABS Tablebuilder data, 2016 Census

Figure 4-24: Werrington journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-25: Werrington need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Werrington community was characterised by:

- high proportions of children (20.7 per cent compared to 18.7 per cent) and lower proportions of people aged 65 years and over (10.8 per cent compared to 13.9 per cent)
- a significantly high proportion of Aboriginal and Torres Strait Islander population (5.1 per cent compared to 1.5 per cent)
- significantly low levels of cultural diversity with 30.7 per cent of residents born overseas (compared to 42.9 per cent) and with 29.9 per cent of residents speaking a language other than English (compared to 41.6 per cent)
- smaller than average household sizes with 2.5 persons per household (compared to 2.8 persons per household) which may be due to a higher proportion of lone person households (29.4 per cent compared to 21.6 per cent)
- a low proportion of couples with children (39.5 per cent compared to 49.5 per cent)
- a low median weekly household income at $1,228 (compared to $1,750) and higher unemployment rate at 9 per cent (compared to 6 per cent)
- low educational attainment with less than half of residents having completed Year 12 or equivalent (45.6 per cent compared to 60 per cent)
- high levels of disadvantage based on a SEIFA Index or Relative Socio-economic Disadvantage percentile of 13 amongst suburbs in NSW
- higher proportion of residents requiring assistance with core activities (6.4 per cent compared to 4.9 per cent)

- a similar proportion of people travelling to work by public transport (22.9 per cent compared to 22.8 per cent)
- a high proportion of people travelling to work by car (65.6 per cent compared to 59.8 per cent).

Land use and social infrastructure

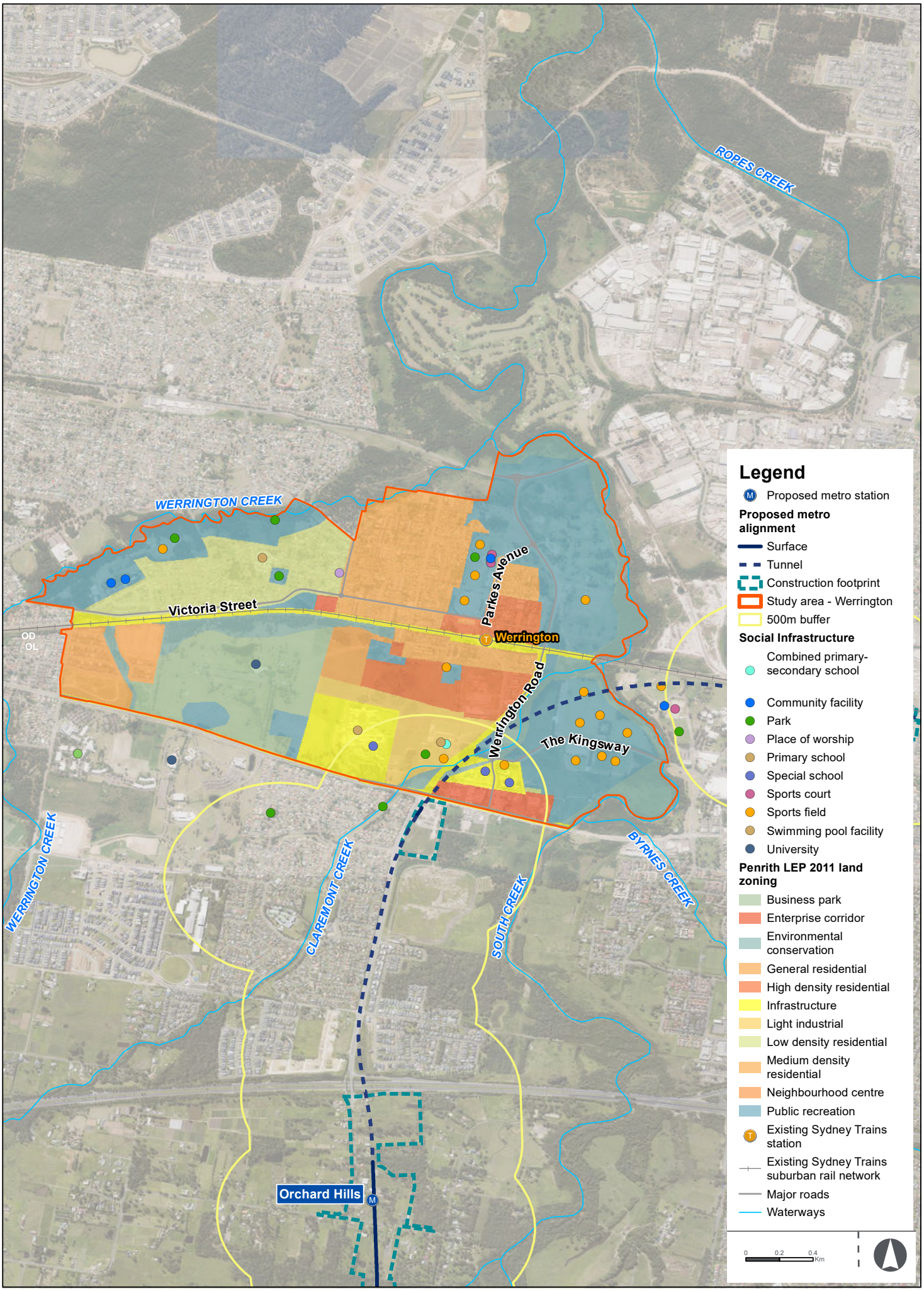
The suburb of Werrington comprises a mix of educational, institutional, low density residential, industrial, open space and recreational uses scattered with vacant rural land. Major infrastructure in the suburb includes part of the Western Sydney University's Penrith Campus, the Main Western Railway, the Great Western Highway and natural features including the riparian corridors of South Creek and Claremont Creek.

Social infrastructure in Werrington is listed in Table 4-5 and shown in Figure 4-18.

Table 4-7: Social infrastructure in Werrington

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Werrington Public School	Heavey Street	Enrolment of 437 students, catering for Kindergarten to Year 6. Approximately 2,700 metres from the existing St Marys Station	No
Montgrove College Werrington Campus	Bringelly Road (co-located with Wollemi College)	Independent Catholic School campus catering to boys in Year 2 to Year 6 (see Montgrove College Orchard Hills for other campus).	Yes
Wollemi College	Gipps Street (co-located with Montgrove College)	Independent Catholic boys' school. Enrolment of over 160 students, catering for Year 7 to Year 12. Approximately 1,900 metres from the existing St Marys Station.	Yes
Kurrambee School	Werrington Road	Enrolment of 107, catering for Kindergarten to Year 12. School for medium to high need students. Approximately 1,600 metres from the existing St Marys Station.	Yes
Putland Education and Training Unit	Corner Water Street Great Western Highway	Putland ETU offers a range of educational programs for our students who generally experience short enrolment periods. Located approximately 2,000 metres from the existing St Marys Station.	Yes
Penrith Valley Learning Centre	Werrington Road	Enrolment of 42 students. School for specific purposes and behaviour disorders. Located approximately 1,600 metres from the existing St Marys Station.	Yes
Western Sydney University Penrith Campus	Great Western Highway	Tertiary Education. Approximately 2,500 metres from the existing St Marys Station.	No
Open space, sport and recreation			
Parkes Avenue Sporting Complex	Parkes Avenue	Sporting fields. Located approximately 1,600 metres from the existing St Marys Station.	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Troy Adams Archery Field	Werrington	Sporting fields. Located approximately 1,200 metres from the existing St Marys Station.	No
Colonial Golf and Footgolf Course	Werrington	Golf Course. Located approximately 1,300 metres from the existing St Marys Station.	No
The Kingsway	Werrington Road	Sporting fields. Located approximately 1,200 metres from the existing St Marys Station.	No
Werrington Lakes (partial)	Francis Street	Open space and parkland. Located approximately 3,100 metres from the existing St Marys Station.	No
Community facility			
Harold Corr Community Hall	Cottage Street	Community centre. Located approximately 3,600 metres from the existing St Marys Station.	No
Place of worship			
New Horizons Community Church	Great Western Highway	Located approximately 1,200 metres from the existing St Marys Station.	No



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Werrington

Figure 4-26

Indicative only, subject to design development

4.2.4 Kingswood

The suburb of Kingswood is bounded by Richmond Road and Victoria Street in the north, French Street, the Great Western Highway and the suburb of Claremont Meadows in the east, Caddens Road and Bringelly Road in the south, and Parker Street in the west. The suburb is 49 kilometres west of the Sydney CBD. The suburb is an established town centre that continues to attract high density development in the Penrith LGA.

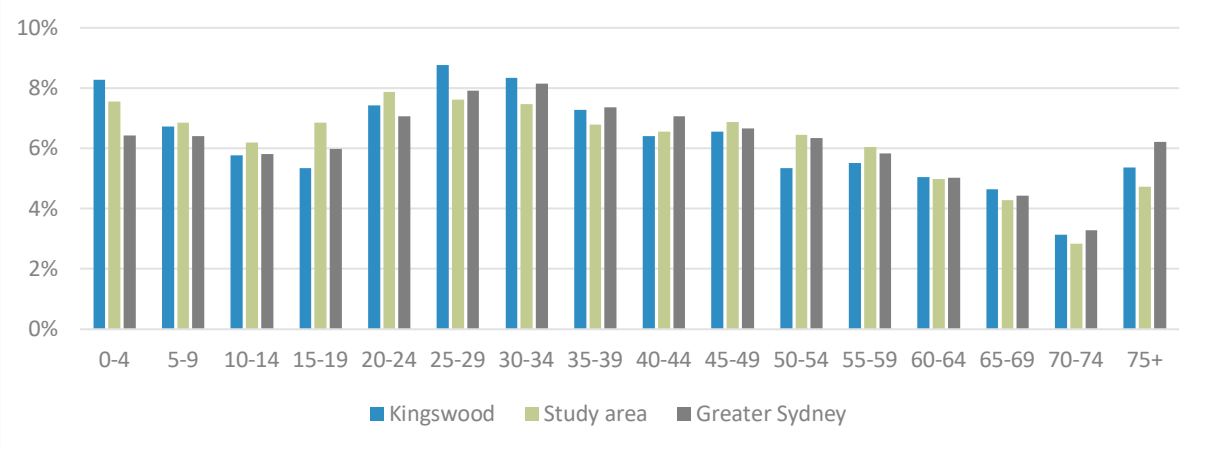
Major infrastructure in the suburb includes part of the Western Sydney University's Penrith Campus and associated WELL precinct, which is divided across the suburbs of Kingswood and Werrington. Other infrastructure in the suburb includes the Nepean College of TAFE, Kingswood Campus and the Kingswood Railway Station, located on the North Shore, Northern and Western Line of the Sydney Trains network.

Kingswood has been identified as a future health and education centre, owing to the nearby location of the Nepean Hospital and surrounding range of medical services and facilities within its boundaries, making it the primary medical centre for the Penrith LGA. Kingswood has business and retail strips along both the Great Western Highway and Bringelly Road.

Demographic profile

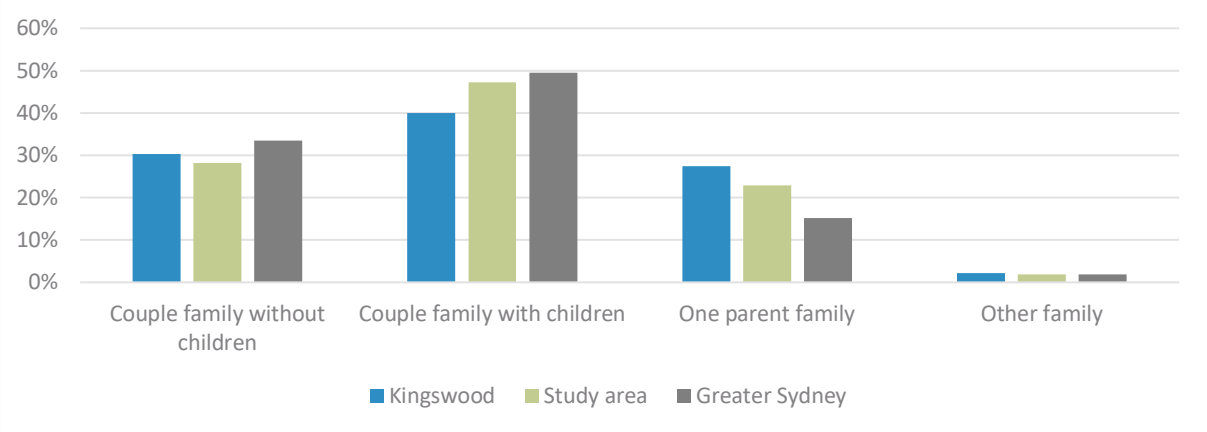
The usual resident population of Kingswood in 2016 was 9,301, living in 4,011 dwellings with an average household size of 2.5 persons.

Figure 4-27: Kingswood age structure



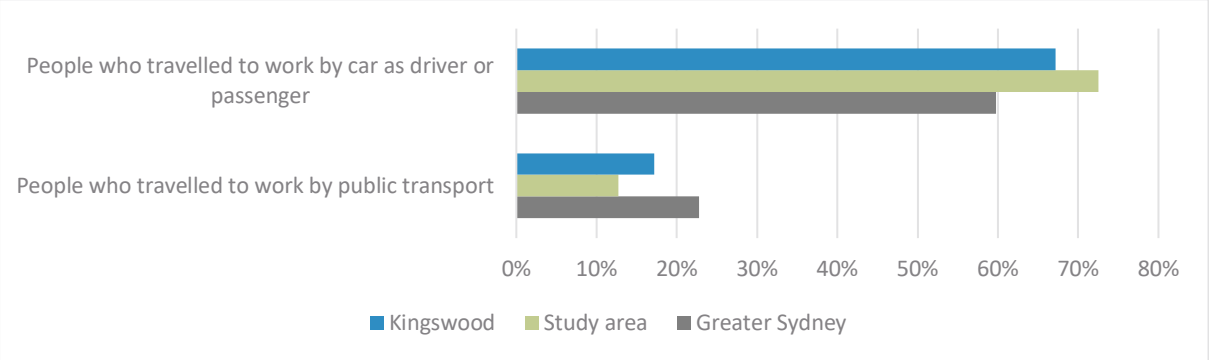
Source: ABS Tablebuilder data, 2016 Census

Figure 4-28: Kingswood household type



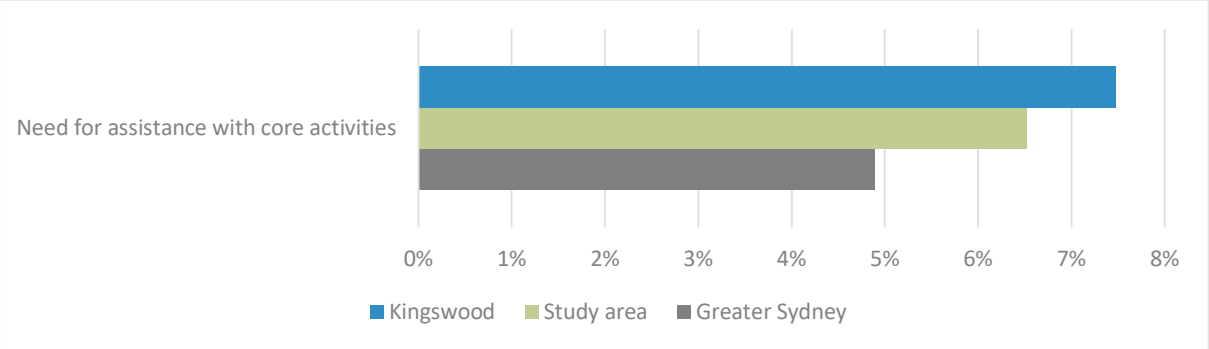
Source: ABS Tablebuilder data, 2016 Census

Figure 4-29: Kingswood journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-30: Kingswood need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Kingswood community is characterised by:

- a high proportion of children (20.8 per cent compared to 18.7 per cent) and a similar proportion of people aged 65 years and over (13.1 per cent compared to 13.9 per cent)
- a high proportion of Aboriginal and Torres Strait Islander population (4.3 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 29.8 per cent of residents born overseas (compared to 42.9 per cent) and with 30.3 per cent living in a household where a language other than English is spoken (compared to 41.6 per cent)
- a slightly lower than average household size with 2.5 persons per household (compared to 2.8 persons per household) and higher proportion of lone person households (29.9 per cent compared to 21.6 per cent)
- a low proportion of couples with children (40 per cent compared to 49.5 per cent)
- a low median weekly household income at $1,097 (compared to $1,750) and higher unemployment rate at 8.5 per cent (compared to 6 per cent)
- a low educational attainment with 43.6 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- high levels of disadvantage based on a SEIFA Index of Relative Socio-economic Disadvantage percentile of 13 compared to other suburbs in NSW
- higher proportion of residents needing assistance with core activities (7.5 per cent compared to 4.9 per cent)
- low levels of public transport use (67.2 per cent compared to 59.8 per cent)
- a high proportion of people travelling to work by car (67.2per cent compared to 59.8 per cent).

Land use and social infrastructure

The primary retail business zone is located along the Great Western Highway and Bringelly Road near the Kingswood Railway Station. This development also includes shop top housing and higher density residential development. Besides the Nepean Hospital, there are a few other medical facilities, day surgeries and home clinics spread through the suburb. As noted in Section 4.2.3, The Western Sydney University's Penrith Campus and as WELL Precinct extends between the suburbs of Werrington and Kingswood.

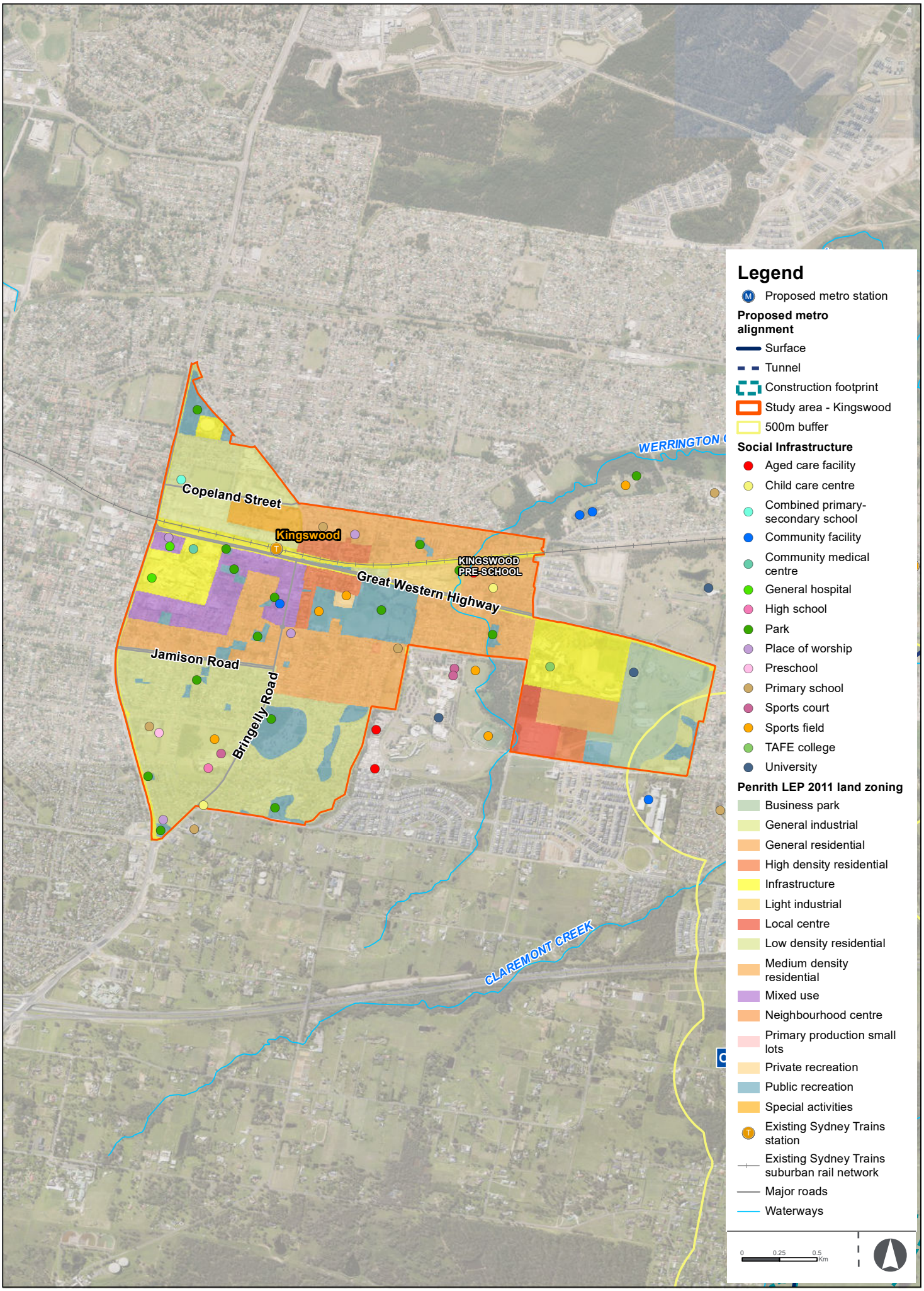
There is some provision of industrial zoned land to the north-west of the railway station and between the Main Western Railway and the Great Western Highway in the east of Kingswood. There is a mix of housing types through Kingswood, medium-high and medium density, consisting primarily of walk-up apartment blocks and some limited higher density apartment blocks around the centre, the hospital and just to the north-east of the railway station. Kingswood has relatively good access to open space areas with the Chapman Gardens and Kingswood Park to the east of the main centre supporting significant playing fields, sporting clubs and recreational areas, Peppermint Reserve to the south on Bringelly Road, and a few pocket parks through the residential areas (Penrith Urban Study, Managing growth to 2031,Penrith City Council and HASSELL, 2009).

Social infrastructure in Kingswood is listed in Table 4-6 and shown in Figure 4-21.

Table 4-8: Social infrastructure in Kingswood

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Kingswood Public School - primary school	Second Avenue	Public School. More than 5 kilometres from the existing St Marys Station.	No
Kingswood High School	Bringelly Road	Public School. More than 5 kilometres from the existing St Marys Station.	No
Kingswood South Public School	Smith Street	Public School primary school. More than 5 kilometres from the existing St Marys Station.	No
Western Sydney University's Penrith campus	Second Avenue	Tertiary education. Located approximately 4,100 metres from the existing St Marys Station.	No
The Nepean College of TAFE, Kingswood Campus	O'Connell Street	Tertiary education. Located approximately 3,300 metres from the existing St Marys Station.	No
Penrith Possums Preschool	First Street	PRE -School. More than 5 kilometres from the existing St Marys Station.	No
St Joseph's Primary School	Joseph Street	Primary school. More than 5 kilometres from the existing St Marys Station.	No
St Dominic's College	Gascoigne Street	Catholic school. More than 5 kilometres from the existing St Marys Station.	No
Place of worship			
St Philip's Anglican Church Kingswood	Second Avenue	Anglican Church. More than 5 kilometres from the existing St Marys Station.	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Hillsong Church Sydney Greater West Campus	Great Western Highway	Church. Western Sydney University. Located approximately 3,000 metres from the existing St Marys Station.	No
Health			
Nepean Hospital	Derby Street	Hospital. More than 5 kilometres from the existing St Marys Station.	No
Wentworth Healthcare	Werrington Park Corporate Centre,	Non-profit organisation. Located approximately 2,900 metres from the existing St Marys Station.	No
Western Sydney University Psychology Clinics	Second Avenue	Psychologist. Located approximately 4,300 metres from the existing St Marys Station.	No
Nepean Blue Mountains Local Health District	Werrington Park Corporate Centre, Western Sydney University	Located in Nepean Hospital. Public health department. More than 5 kilometres from the existing St Marys Station.	No
Nepean Sexual Health & HIV Service	Court Building, Derby Street	Free clinic. More than 5 kilometres from the existing St Marys Station.	No
Community facility			
Kingswood Neighbourhood Centre	Bringelly Road	This facility is located a short walk from Kingswood train station and is adjacent to Wainwright Park play equipment. The facility offers a medium sized hall with a secure yard and shade structure. It also has a meeting room. More than 5 kilometres from the existing St Marys Station.	No
Chapman Gardens	Second Avenue	Sports club, stadium, arena and sports venue. Located approximately 4,400 metres from the existing St Marys Station.	No
Carmel Kennedy Memorial	Second Avenue	Memorial park. Located approximately 4.6 kilometres from the existing St Marys Station.	No
John Phillips Library	Western Sydney University	Library. Located approximately 4,600 metres from the existing St Marys Station.	No
Open space, sport and recreation			
Lions Park	Parker Street & Bringelly Road	Local park. Includes playground. More than 5 kilometres from the existing St Marys Station	No
Peppermint Reserve	Peppermint Crescent	More than 5 kilometres from the existing St Marys Station	No



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Kingswood

Figure 4-31

Indicative only, subject to design development

4.2.5 Claremont Meadows

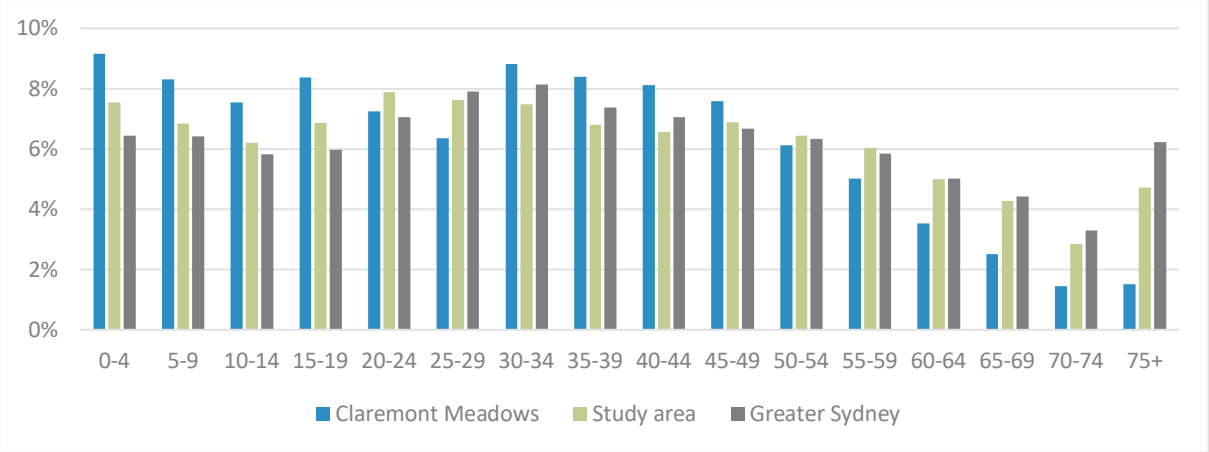
Claremont Meadows is one of the more recent residential developments in the City of Penrith. It is a smaller, quiet and isolated suburb serviced by buses operated by a private bus company. The southern areas of the suburb are bound by the M4 Western Motorway and South Creek and comprise a mix of low density residential, retail, community uses, patches of bushland and open space scattered with vacant rural land.

There are few services available in comparison with other more established suburbs in the Penrith LGA. The nearest railway station is Werrington. The M4 Western Motorway on and off ramps connect Claremont Meadows directly onto the M4 Western Motorway going east. Transport and traffic issues arising from the suburb's proximity to the Western Sydney University Penrith Campus have been a concern for its residents in the past. Also, the suburb is dissected by the Werrington Arterial, which carries traffic north from the M4 Western Motorway through Werrington and beyond. This road and the M4 Western Motorway are recognised as a source of noise for properties nearby.

Demographic profile

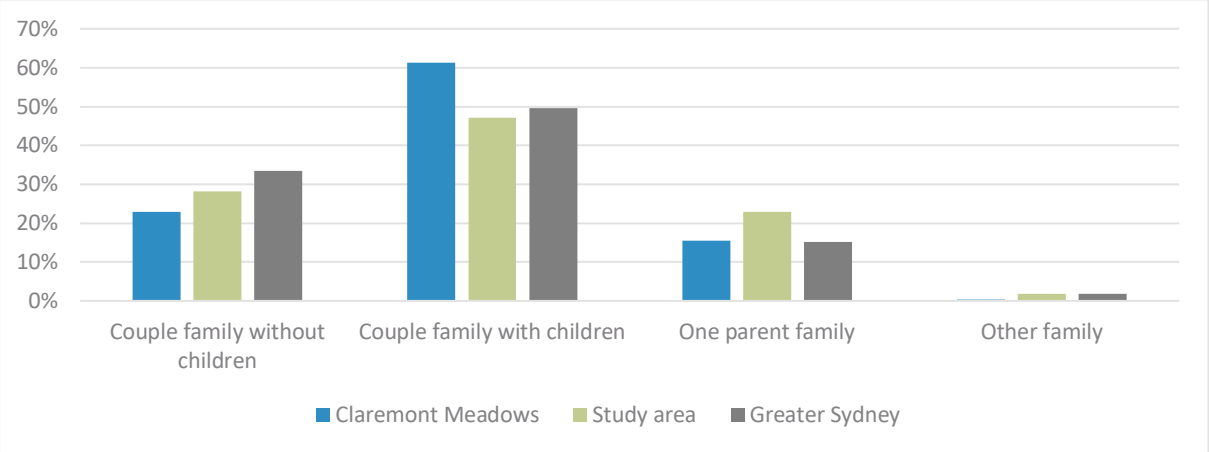
In 2016, the usual resident population of Claremont Meadows was 4,776 people, living in 1,530 dwellings, with an average household size of 3.2 people.

Figure 4-32: Claremont Meadows age structure



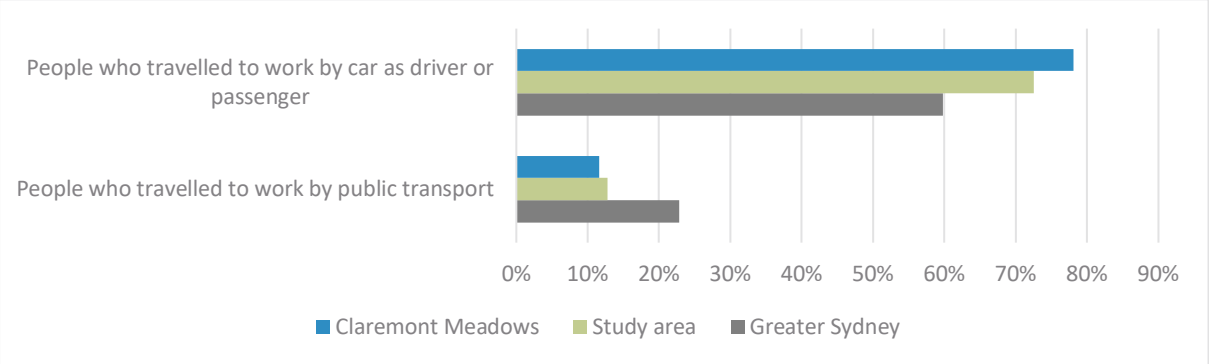
Source: ABS Tablebuilder data, 2016 Census

Figure 4-33: Claremont Meadows household type



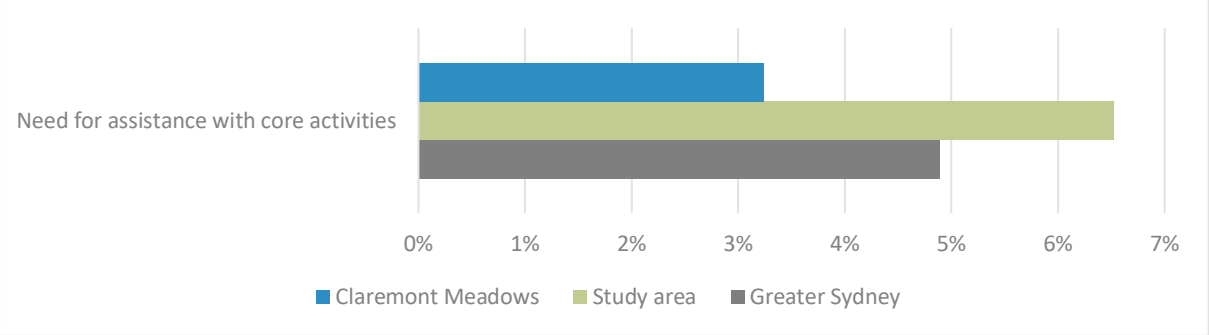
Source: ABS Tablebuilder data, 2016 Census

Figure 4-34: Claremont Meadows journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-35: Claremont Meadows need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Claremont Meadows community is characterised by:

- a high proportion of children (25 per cent compared to 18.7 per cent) and a low proportion of people aged 65 years and over (5.4 per cent compared to 13.9 per cent)
- a high proportion of Aboriginal and Torres Strait Islander population (2.8 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 25.5 per cent of residents born overseas (compared to 42.9 per cent) and with 25.7 per cent of residents living in a household where a language other than English is spoken (compared to 41.6 per cent)
- a higher than average household sizes with 3.2 persons per household (compared to 2.8 persons per household) and significantly lower proportion of lone person households (11.5 per cent compared to 21.6 per cent)
- a high proportion of couples with children (61 per cent compared to 49.5 per cent)
- higher median weekly household income at $2,075 (compared to $1,750) and lower unemployment rate at 5.2 per cent (compared to 6 per cent)
- low educational attainment with 51.3 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- low levels of disadvantage based on a SEIFA Index of Relative Socio-economic Disadvantage percentile of 67 amongst suburbs in NSW
- low levels of need for assistance with core activities amongst residents (3.2 per cent compared to 4.9 per cent across Greater Sydney)
- low levels of public transport use for travel to work (11.6 per cent compared to 22.8 per cent)
- a high proportion of people travelling to work by car (78.1 per cent compared to 59.8 per cent).

Land use and social infrastructure

Land in Claremont Meadows is zoned predominantly for residential uses and open space/drainage, with a small pocket of commercially zoned land along Sunflower Drive. There are no industrial uses or major employment generating areas. A large area of remnant bushland, predominantly Cumberland Plain Woodland exists in the eastern part of the precinct adjacent to South Creek, and around Claremont Creek. Both these areas, but particularly the bushland in the east have been identified as having substantial biodiversity value.

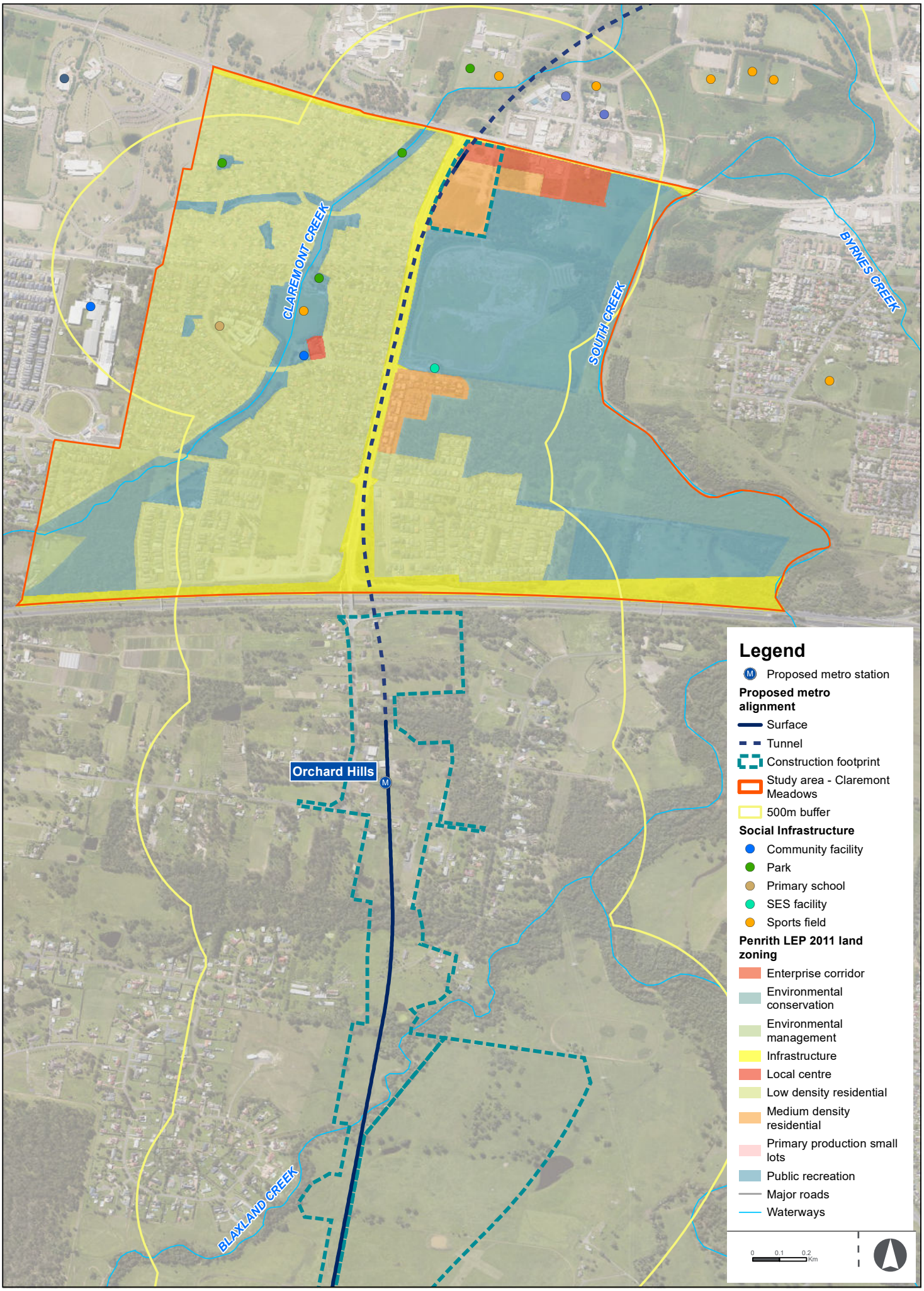
In addition to the suburbs of St Marys, Werrington, and Caddens, Claremont Meadows is part of the Greater Penrith to Eastern Creek Growth Investigation Area. Current plans by the Australian and NSW Governments include the provision of a range of new housing integrated with new social infrastructure in the area.

Social infrastructure in Claremont Meadows is listed in Table 4-9 and shown in Figure 4-36.

Table 4-9: Social infrastructure in Claremont Meadows

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Claremont Meadows Public School	Sunflower Drive	Enrolment of 554 students, servicing Kindergarten to Year 6.	Yes
Lifetime Learners Long Day-care & Pre-School	Massa Place	Caters for 64 children between the ages of 6 weeks to 6 years. Age group 6 weeks to 24 months caters for 15 Children. Age group 2 Year to 3 Years caters for 24 Children. Age groups 3 Years to 5 Years 25 children each.	Yes
YMCA Claremont Meadows OSHC	Sunflower Drive	YMCA Claremont Meadows Out of School Care (OSHC) is part of YMCA NSW's network. It provides before and after school care. Before School Care starts at 6.30 am and runs through until 8.30 am. After School Care starts at 3 pm and runs through until 6.30 pm. Located at Claremont Meadows Public School.	Yes
Community facility			
Claremont Meadows Community Centre	Sunflower Drive	Located beside Claremont Meadows shopping centre, it includes a medium sized hall and two meeting rooms with capacity for 70 people maximum. It also includes a youth lounge as well as a meeting room and a hall.	Yes
Health			
Claremont Meadows Medical Centre	Sunflower Drive	Medical Centre	Yes
Open space			
Myrtle Road Fields	Myrtle Road and Sunflower Drive	Sportsfield	Yes
Cedars Park	Sunflower Drive	Playground	Yes
Myrtle Road Reserve	Myrtle Road & San Diego Street	Playground	Yes

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Central Park Drive Reserve	Silverwood Way	Playground	Yes
Place of worship			
Windsor Samoan Assembly of God	Sunflower Drive	Christian church	Yes



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Claremont Meadows

Figure 4-36

Indicative only, subject to design development

4.2.6 Erskine Park

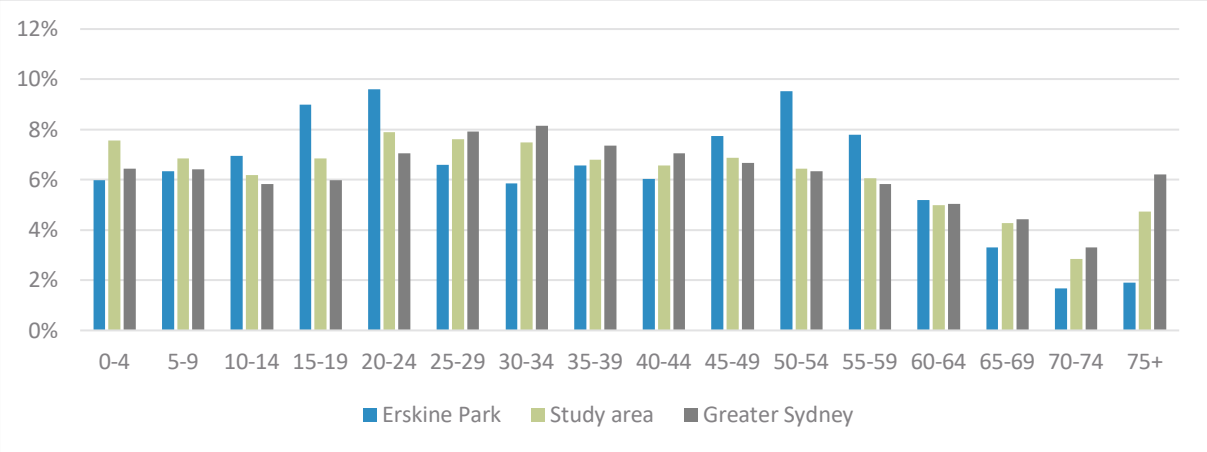
Erskine Park is located to the east of the project area within the Penrith LGA. Erskine Park is bounded by the M4 Western Motorway in the north, Ropes Creek in the east, the pipelines in the south, and Mamre Road, the suburb of St Clair and Erskine Park Road in the west. The suburb is largely industrial in character but with a residential area to the north of the suburb.

Erskine Park is located near the junction of the M4 Western Motorway and Westlink M7 Motorway. There is a link road proposed from the Business Park to the Westlink M7. The industrial precinct is attractive to logistics and warehousing operations that benefits from the suburb's proximity to major road routes. Old Wallgrove Road provides a major east-west link through the suburb.

Demographic profile

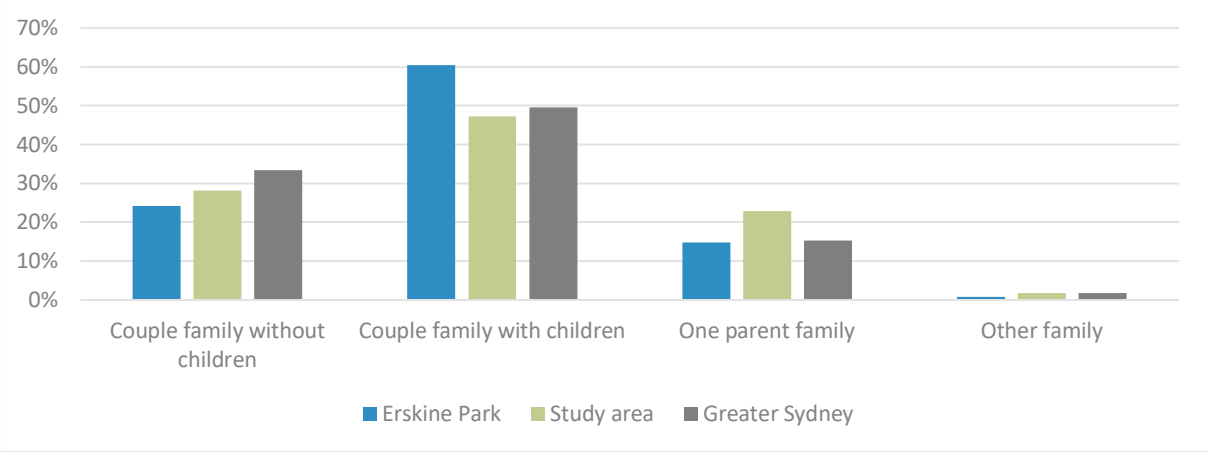
In 2016, the usual resident population of Erskine Park was 6,436 people, living in 2,016 dwellings with an average household size of 3.3 persons.

Figure 4-37: Erskine Park age structure



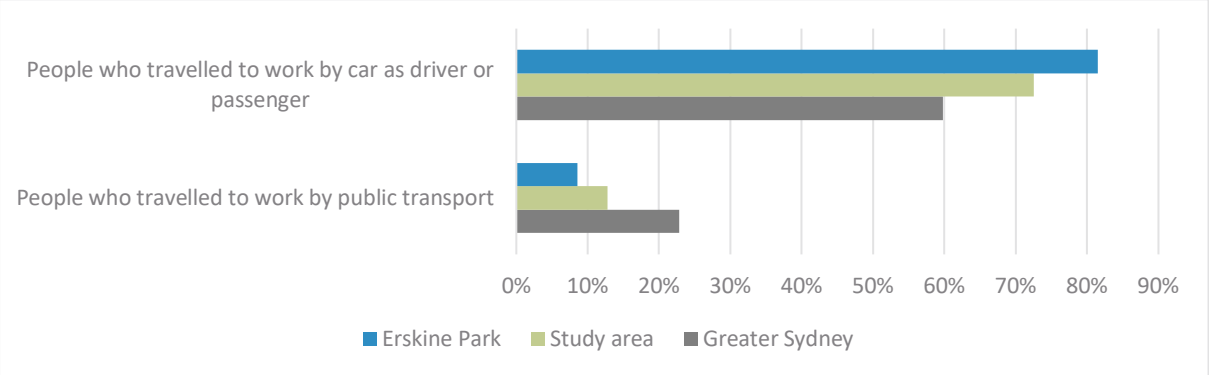
Source: ABS Tablebuilder data, 2016 Census

Figure 4-38: Erskine Park household type



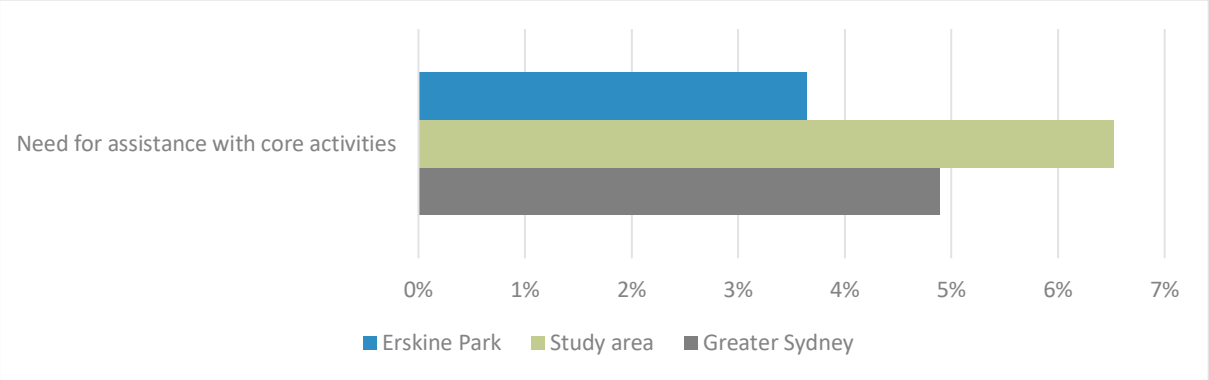
Source: ABS Tablebuilder data, 2016 Census

Figure 4-39: Erskine Park journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-40: Erskine Park need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Erskine Park community is characterised by:

- high proportions of population aged 15-24 years (18.6 per cent compared to 13.8 per cent) and a higher proportion of people aged 45-54 years (17.5 per cent compared to 12.3 per cent)
- slightly higher proportions of Aboriginal and Torres Strait Islander population (2.2 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 24.6 per cent of residents born overseas (compared to 42.9 per cent) and with 24.8 per cent of residents living in a household where a language other than English was spoken (compared to 41.6 per cent)
- above average household sizes with 3.3 persons per household (compared to 2.8 persons per household) and a low proportion of lone person households (10.2 per cent compared to 21.6 per cent)
- a high proportion of couples with children (54.7 per cent compared to 35.3 per cent)
- a high median weekly household income at $2,104 (compared to $1,750) and slightly below average unemployment rate at 5.5 per cent (compared to 6 per cent)
- low educational attainment, as half of the residents do not have a university qualification (13.7 per cent compared to 28.3 per cent) and with less than half of residents having completed Year 12 or equivalent (with 46.5 per cent compared to 60 per cent)
- slightly lower levels of disadvantage based on a SEIFA Index of Relative Socio-economic Disadvantage percentile of 99 amongst suburbs in NSW
- fewer people need assistance with core activities (3.3 per cent compared to 4.9 per cent)
- low levels of public transport use in journeys to work (8.6 per cent compared to 22.8 per cent)
- a high proportion of people travelling to work by car (81.5 per cent compared to 59.8 per cent).

Land use and social infrastructure

Land in Erskine Park is markedly contrasted along the transmission lines that bisect it from east to west. Land to the south of this divide consists of an industrial estate zoned predominantly for industrial uses, with areas of environmental conservation/drainage and special purpose easements for the pipelines along its southern boundary. To the north, the land is predominantly residentially zoned, with some areas of open space/drainage and a small pocket of commercially zoned land along Swallow Drive. A large area of remnant bushland, predominantly Cumberland Plain Woodland exists within the industrial area to the south.

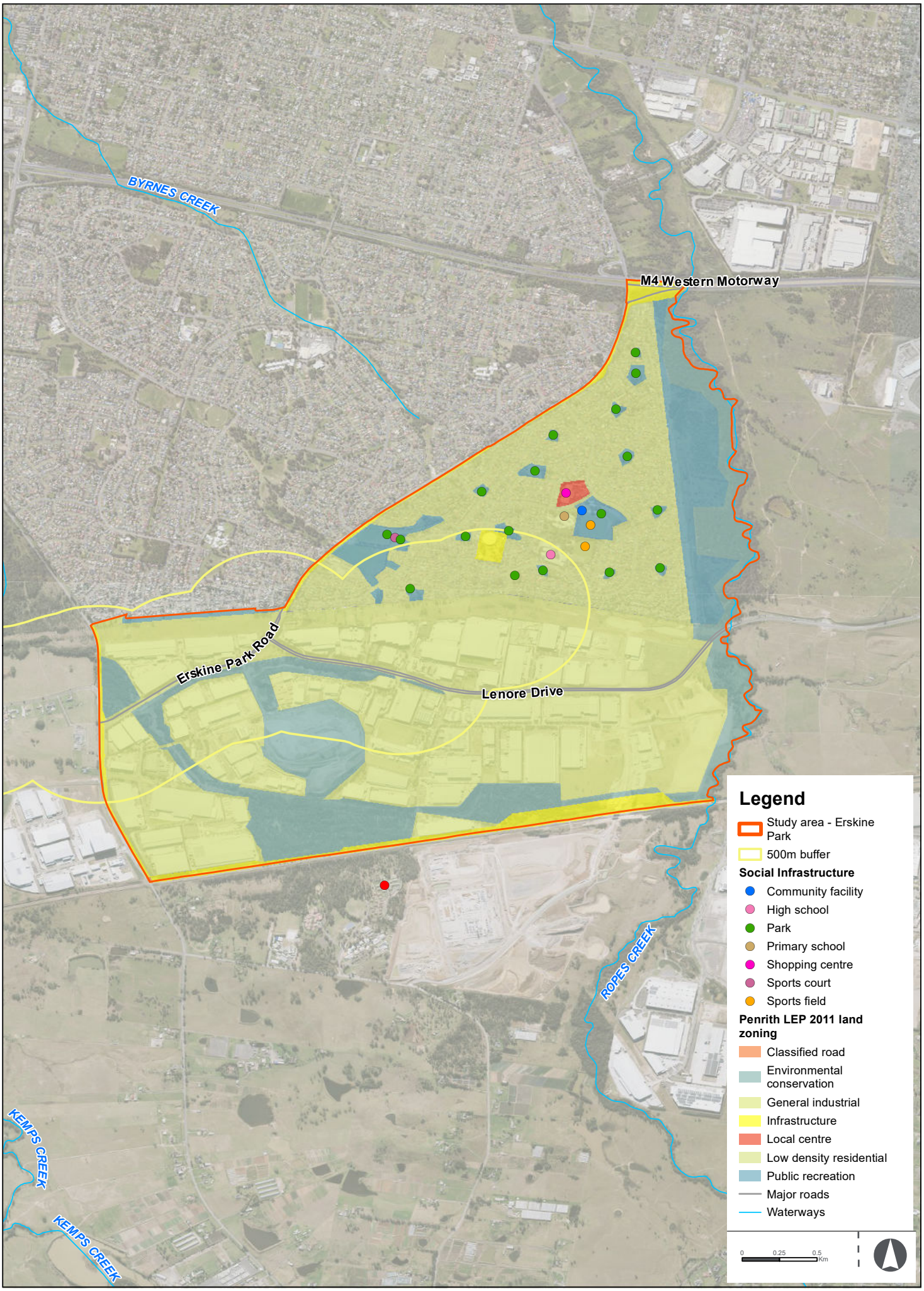
In addition to the suburbs of St Marys, Werrington, Caddens, and Claremont Meadows, the northern residential portion of Erskine Park is part of the Greater Penrith to Eastern Creek Growth Investigation Area. Current plans by the Australian and NSW Governments include the provision of a range of new housing integrated with new social infrastructure in the area.

Social infrastructure in Erskine Park is listed in Table 4-8 and shown in Figure 4-27.

Table 4-10: Social infrastructure in Erskine Park

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
James Erskine Public School	53 Peppertree Drive	Enrolment of 587 students, catering for Kindergarten to Year 6.	No
Erskine Park High School	78-82 Swallow Drive	Enrolment of 1009 students, catering for Year 7 to Year 12.	Yes
Community facility			
Erskine Park Community Centre	57 Peppertree Drive	Community hall with capacity of 70 people and meeting room with capacity for 20 people are available for hire (playgroup, sport, hall hire).	No
Erskine Park Community Hall	57 Peppertree Drive	Community hall with capacity for 300 people in the Penrith LGAs second largest venue. The hall is connected to the community centre by veranda. Has a semi-industrial kitchen.	No
Shopping centre			
Erskine Park Shopping Centre	Swallow and Peppertree Drive	Local shopping centre, including cafes, restaurants, real estate agent, IGA, ALDI, women's gym, butcher, hair, nails, dentist, medical centre, newsagent, uniform shop, tobacconist and bakery.	No
Open space, sport and recreation			
Andrew Thompson Park	Peppertree Drive	Open parkland	No
Chameleon Drive Reserve	Chameleon Drive	2x sealed netball courts	No
Kestrel Crescent Reserve	Kestrel Crescent	Playground	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Peppertree Reserve	Peppertree Drive	2x rugby fields, playground	No
Ridgeview Crescent Reserve	Ridgeview Crescent	Playground	Yes
Skylark Crescent Reserve	Skylark Crescent	Playground	No
Spica Place Reserve	Spica Place	Playground	Yes
Capella Street Reserve	Capella Street	Open parkland	Yes
Unnamed Park	Regulus Street and Swallow Drive	Open parkland	Yes
Unnamed Park	Whistler Crescent and Warbler Street	Open parkland	No
Unnamed Park	Weaver Street	Open parkland	No
Unnamed Park	Taurus Street and Acquarius Crescent	Open parkland	No
Unnamed Park	Swallow Drive and Columba Place	Open parkland	Yes
Fantail & Whistler Crescent Reserve	Fantail and Whistler Crescent	Open parkland	No
Pacific & Phoenix Reserve	Pacific Road and Phoenix Crescent	Open parkland	No
Spoonbill Street Reserve	Spoonbill Street	Open parkland	No



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Social infrastructure near the project at Erskine Park

Figure 4-41

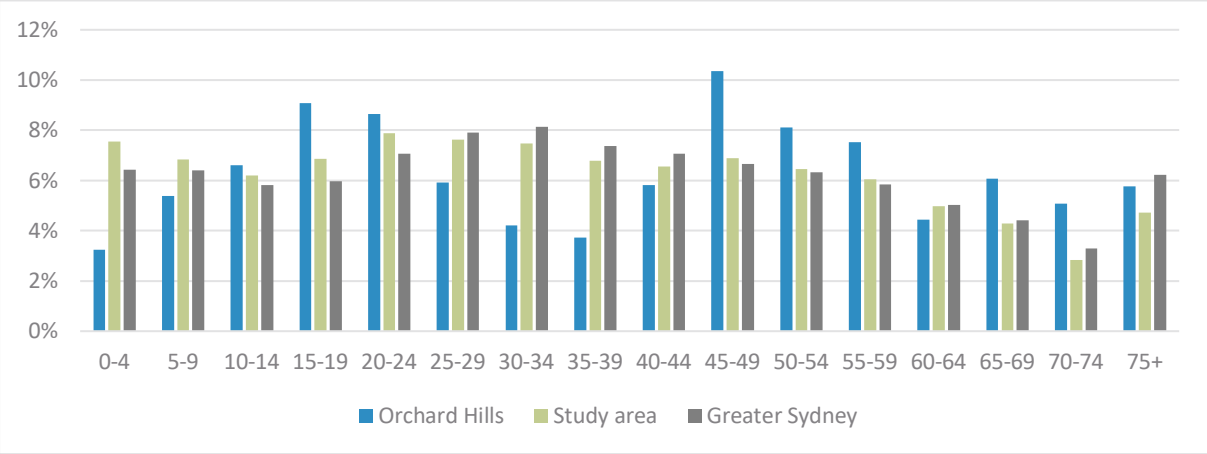
4.2.7 Orchard Hills

Orchard Hills is bounded by Caddens Road, the suburb of Claremont Meadows and the M4 Western Motorway in the north, Mamre Road in the east, the pipelines in the south, and The Northern Road and Bringelly Road in the west.

Demographic profile

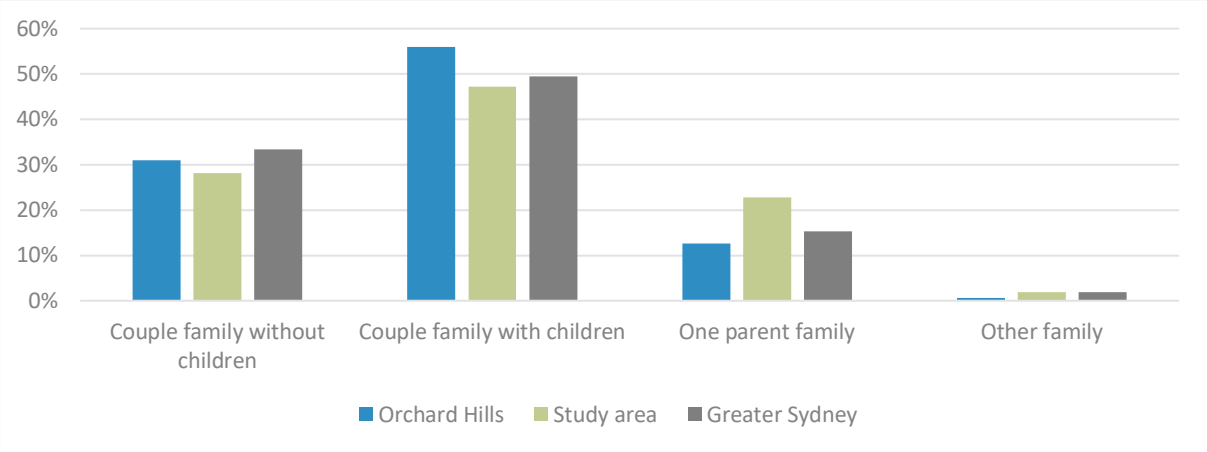
The usual resident population of Orchard Hills in 2016 was 1,877 people, living in 587 dwellings, with an average of 3.4 people per dwelling.

Figure 4-42: Orchard Hills age structure



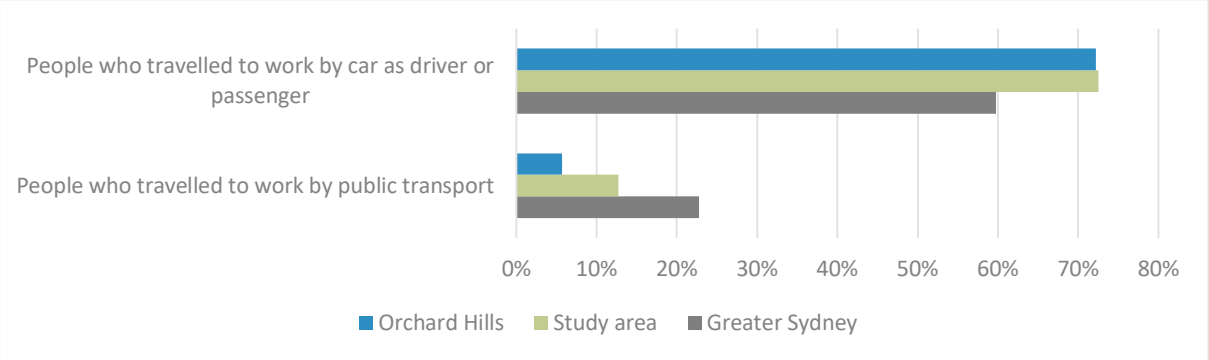
Source: ABS Tablebuilder data, 2016 Census

Figure 4-43: Orchard Hills household type



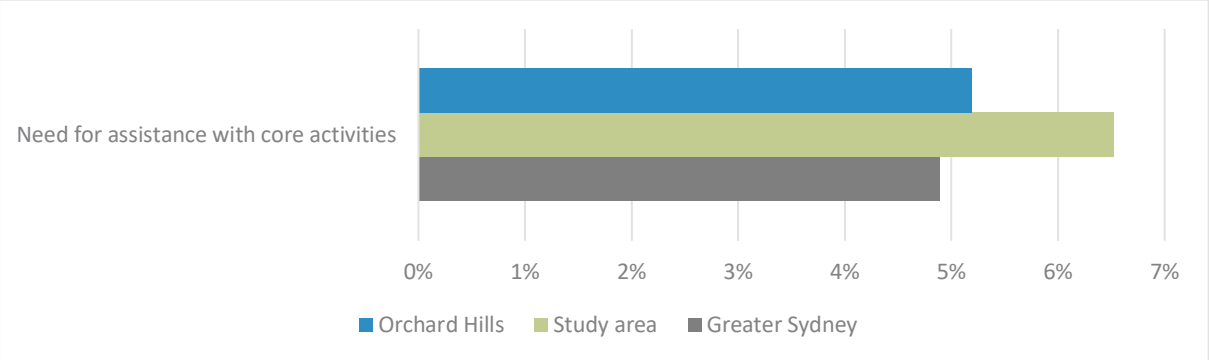
Source: ABS Tablebuilder data, 2016 Census

Figure 4-44: Orchard Hills journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-45: Orchard Hills need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Orchard Hills community was characterised by:

- a low proportion of children (15.3 per cent compared to 18.7 per cent) and higher proportion of people aged 65 years and over (16.9 per cent compared to 13.9 per cent)
- a low proportion of Aboriginal and Torres Strait Islander population (1.2 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 24.8 per cent of residents born overseas (compared to 42.9 per cent) and with 28.5 per cent of residents living in a household where a language other than English is spoken (compared to 41.6 per cent)
- higher than average household sizes with 3.4 persons per household (compared to 2.8 persons per household) and significantly lower proportion of lone person households (8.6 per cent compared to 21.6 per cent)
- a high proportion of couples with children (55.9 per cent compared to 49.5 per cent)
- a high median weekly household income at $2,072 (compared to $1,750) and lower unemployment rate at 4.5 per cent (compared to 6 per cent)
- low educational attainment with 40.9 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- low levels of disadvantage based on a SEIFA Index of Socio-economic disadvantage percentile of 73 compared to other suburbs in NSW
- a lower proportion of resident requiring assistance with core activities (4.0 per cent compared to 4.9 per cent)
- low levels of public transport use for journeys to work (5.7 per cent compared with 22.8 per cent)
- a high proportion of people travelling to work by car (72.2 per cent compared to 59.8 per cent).

Land use and social infrastructure

Orchard Hills currently consists of predominantly low density, rural residential dwellings and has potential for future development and uplift through higher density residential within the catchment.

Areas of Orchard Hills north of Blaxland Creek comprise semi-rural residential properties with some small scale agricultural land uses and patches of bushland present, around South Creek and Blaxland Creek (refer to Chapter 19 (Land use and property) of the Environmental Impact Statement).

South of Blaxland Creek, existing land uses transition into generally rural uses combined with rural-residential properties, large scale horticultural uses and a waste management facility on Patons Lane at a former quarry site. The rural land uses are traversed by infrastructure elements including the pipelines, a series of high voltage powerline corridors, and Luddenham Road.

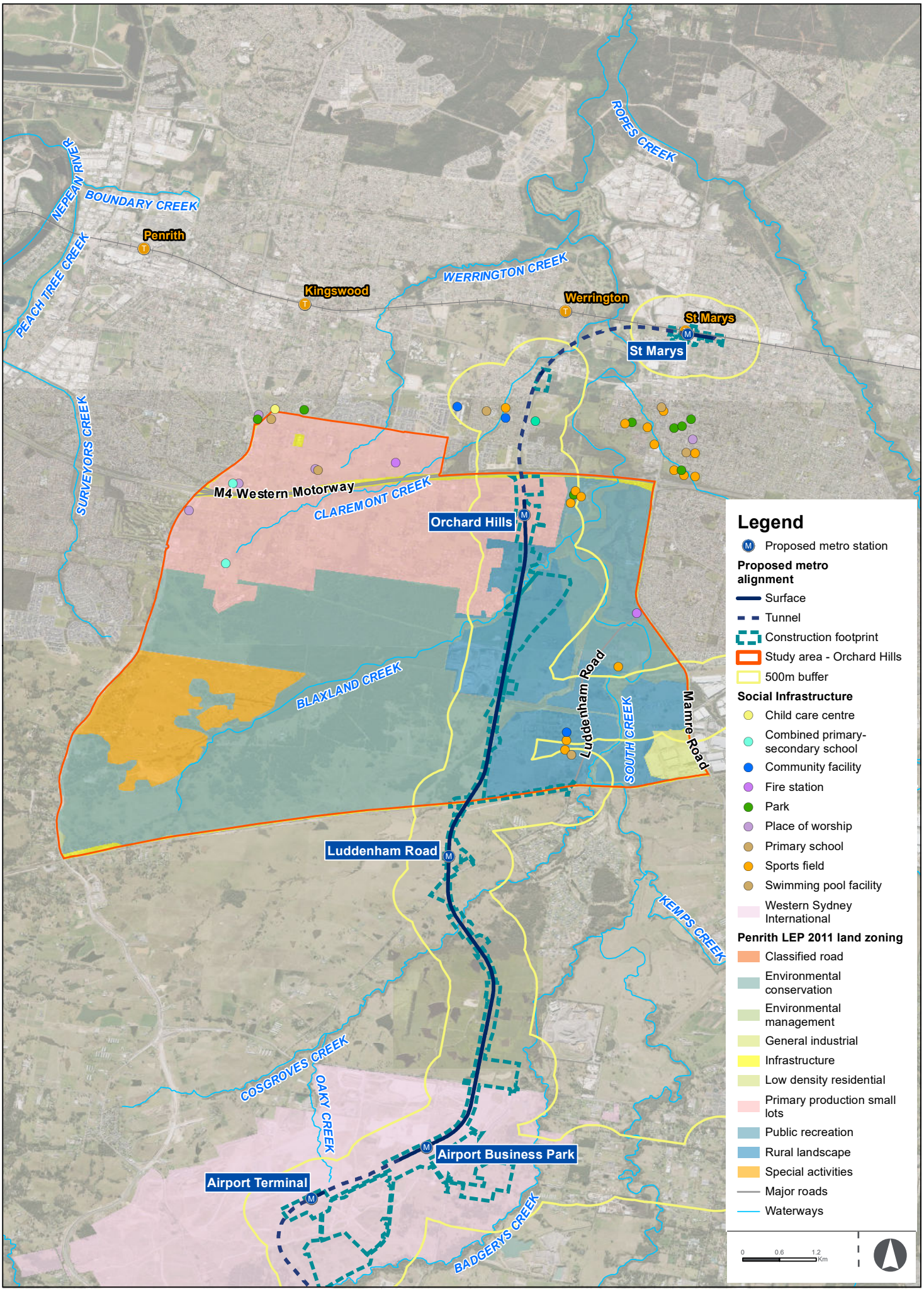
Orchard Hills includes Defence Establishment Orchard Hills which is owned by the Department of Defence and is primarily used for munitions storage, maintenance and testing. In November 2019, a $95 million defence project was announced for the delivery of the Naval Guided Weapons Maintenance Facilities Project. Construction is scheduled to be completed by July 2021.

Social infrastructure in Orchard Hills is listed in Table 4-9 and shown in Figure 4-30.

Table 4-11: Social infrastructure in Orchard Hills

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Orchard Hills Public School	Kingswood Rd, Orchard Hills	Enrolment of 128 students, catering Kindergarten to Year 6.	No
Penrith Christian School	Simeon Road	Enrolment of 718 students, catering for early childhood to Year 12.	No
Orchard Hills Pre-School	Bringelly Road	Long Day Care with a Pre-School Program, enrolment of 29 children per day, aged 6 weeks to 6 years of age. The facility includes a specialised Baby Room (up to 2yrs) and a Pre-School room for children 2 to 6 years	No
Montgrove College Orchard Hills Campus	Orchard Hills	A campus catering for co-educational classes in Kindergarten and Year 1 and girls' classes in Year 2 to Year 12 (boys progress to Year 6 at the Werrington Campus). Combined enrolment of 601 students across both campuses.	No
Community facility			
Croatian Club Bosna	Luddenham Road	Community facility run by local Croatian Community Groups. Hosts local community events, including sport and a Croatian language school.	Yes
Emergency services			
Orchard Hills Rural Fire Brigade (RFB)	Castle Road	Orchard Hills RFB is a member of the Cumberland Zone in the NSW Rural Fire Service. Est in 1970 the brigade is on call 24 hours a day, 7 days a week.	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Open space, sport and recreation			
Samuel Marsden Reserve	Samuel Marsden Road	Park. The Colyton St Clair Chiefs Baseball Club operates at this location	Yes
Place of worship			
Mt Hope Uniting Church	Kingswood Road	Congregation of the Uniting Church of Australia. Meets at 5:30 pm on the third Sunday of each month, first Wednesday at 7:30pm and 3rd Wednesday evening.	No
Assemblies of God Church	Simeon Road	Uses Penrith Christian School facilities.	No
Jehovah's Witnesses Kingdom Hall	Homestead Road	Houses Penrith Central and Cambridge Park – Penrith congregations, meeting Tuesday evening/Saturday afternoon and Wednesday evening/Sunday morning, respectively.	No



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Orchard Hills

Figure 4-46

Indicative only, subject to design development

4.2.8 Luddenham

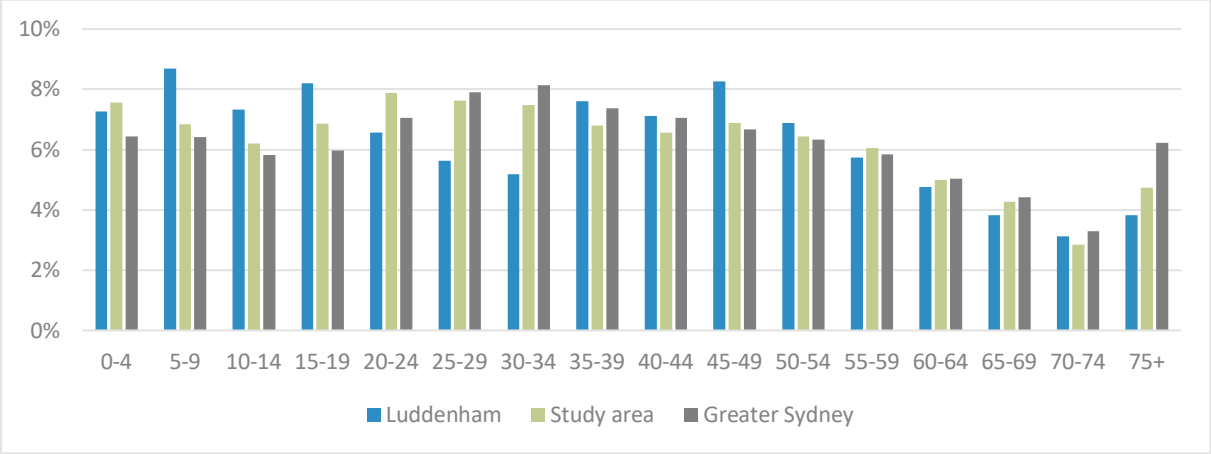
The east side of the Luddenham suburb, east of The Northern Road, is situated in the Liverpool LGA, while its western side is within the Penrith LGA. The pipelines are the north boundary of the suburb, while its southern borders are Elizabeth Drive and The Northern Road. Luddenham has a western boundary with Wallacia and an eastern boundary with Kemps Creek. Luddenham has one bus service, route 789, between Luddenham and Penrith.

As shown in Figure 4-51, the southern portion of the suburb portion of the suburb is within the Western Sydney International area, which is considered in Section 4.3.

Demographic profile

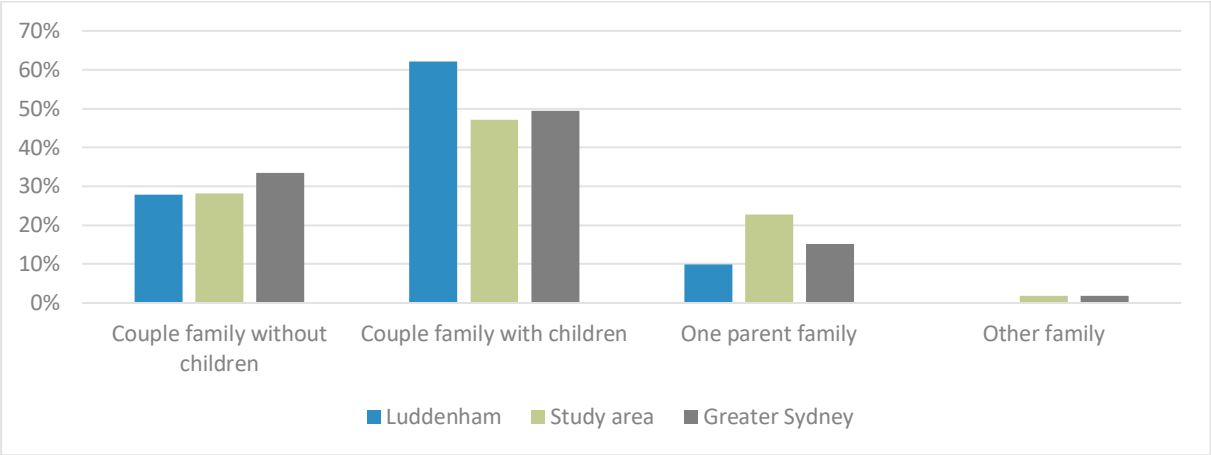
The usual resident population of Luddenham in 2016 was 1,828 people, living in 547 dwellings, with an average household size of 3.6 people.

Figure 4-47: Luddenham age structure



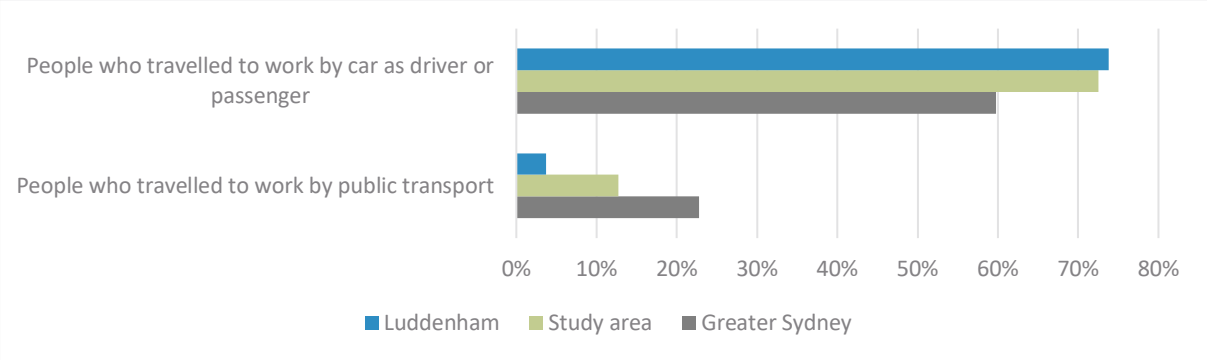
Source: ABS Tablebuilder data, 2016 Census

Figure 4-48: Luddenham household type



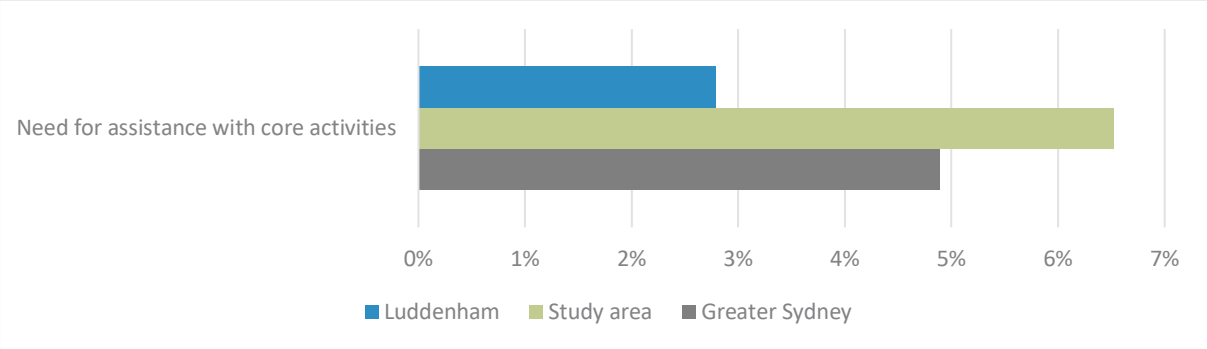
ABS Tablebuilder data, 2016 Census

Figure 4-49: Luddenham journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-50: Luddenham need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Luddenham community was characterised by:

- a high proportion of children (23.3 per cent compared to 18.7 per cent) and lower proportion of people aged 65 years and over (10.8 per cent compared to 13.9 per cent)
- a high proportion of Aboriginal and Torres Strait Islander population (1.8 per cent compared to 1.5 per cent)
- low levels of cultural diversity with 15 per cent of residents born overseas (compared to 42.9 per cent) and with 23.3 per cent of residents living in households where a language other than English is spoken (compared to 41.6 per cent)
- lower than average household sizes with 3.6 persons per household (compared to 2.8 persons per household) and significantly lower proportion of lone person households (9.1 per cent compared to 21.6 per cent)
- a significantly high proportion of couples with children (62.1 per cent compared to 49.5 per cent)
- a high median weekly household income at $2,234 (compared to $1,750) and lower unemployment rate at 2.4 per cent (compared to 6 per cent)
- low educational attainment with 39.2 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- low levels of disadvantage based on a SEIFA Index or Relative Socio-economic Disadvantage percentile of 82 amongst other suburbs in NSW
- lower proportion of residents requiring assistance with core activities (2.8 per cent compared to 4.9 per cent)
- low levels of public transport use for journeys to work (3.7 per cent compared to 22.8 percent)
- a high proportion of people travelling to work by car (73.8 per cent compared to 59.8 per cent).

Land use and social infrastructure

Luddenham includes semi-rural large-lot properties with some semi-rural residential properties bordering Luddenham Road within an open, rural landscape. The area also includes agricultural uses including equine and poultry facilities and market gardens. There is no bus service to Luddenham.

The Luddenham Road Station precinct is anticipated to be developed as a high amenity mixed use community offering a diversity of housing, with a focus on employment and industry.

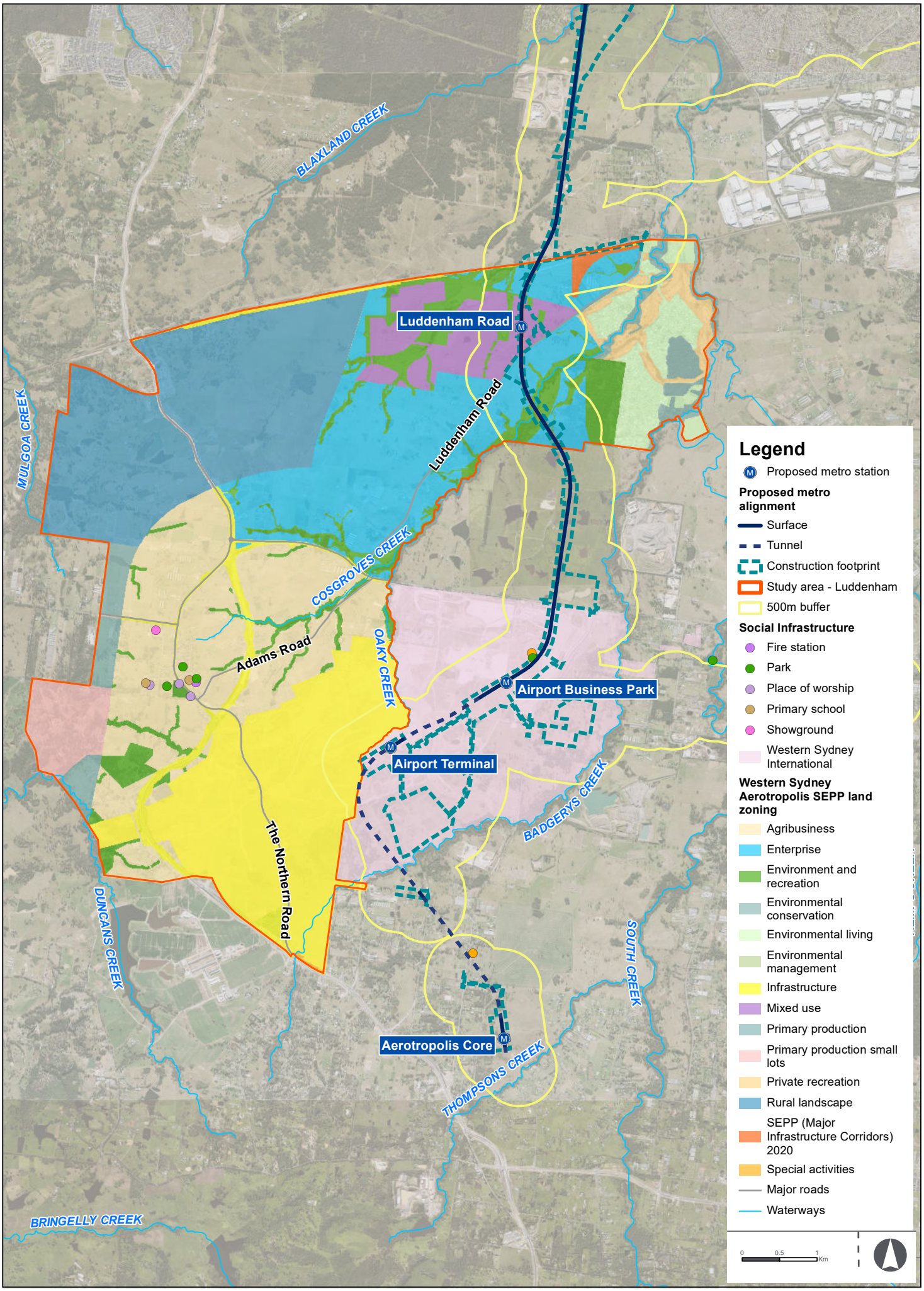
Current plans for the suburb include the development of a future employment, research and knowledge-based employment precinct, which is proposed to be in the strategic Western Sydney Priority Growth Area at Luddenham. Set over 280 hectares, the precinct would be a fully integrated community that with employment, retail and residential uses, and would create more than 12,000 knowledge based jobs, cater to over 10,000 students and be home to over 10,000 residents.

Social infrastructure in Luddenham is listed in Table 4-10 and shown in Figure 4-33.

Table 4-12: Social infrastructure in Luddenham

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Luddenham Public School	Jamison Street	Enrolment of 94 students, catering for Kindergarten to Year 6.	No
Holy Family Catholic Primary School	Willowdene Avenue	Enrolment of 224 children, catering for Kindergarten to Year 6.	No
Child care			
Luddenham Child Care Centre	The Northern Road	Long day care. Enrolment of 39 children.	No
Community facilities			
Luddenham Progress Hall	The Northern Road	Public Hall operated by the Luddenham Progress Association, a community group with membership open to all residents of the village.	No
Emergency services			
NSW Rural Fire Service - Luddenham Brigade	Jamison Street	Brigade of volunteer firefighters, dedicated to providing 24/7 emergency services to the community of Luddenham and its surrounds.	No
Place of worship			
St. James Anglican Church and cemetery	The Northern Road	Anglican church located in a historic building erected over the nineteenth century and early part of the twentieth century. This building is one of a contiguous group of three church related buildings. The cemetery is an important element within the Luddenham community.	No

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Luddenham Uniting Church and cemetery	Roots Avenue	Methodist Church. The cemetery is an important element within the Luddenham Village Centre, illustrating the development of the village in the 1870s - 80s.	No



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Social infrastructure near the project at Luddenham

Figure 4-51

Indicative only, subject to design development

4.2.9 Badgerys Creek

The suburb of Badgerys Creek is part of the Greater Western Sydney region. As shown in Figure 4-56, the western portion of the suburb is within the Western Sydney International area, which is considered in Section 4.3.

The suburb can be accessed via Elizabeth Drive or The Northern Road. Kemps Creek and Luddenham are the closest townships. To the south of Badgerys Creek and Western Sydney International are the suburbs of Bringelly and Rossmore.

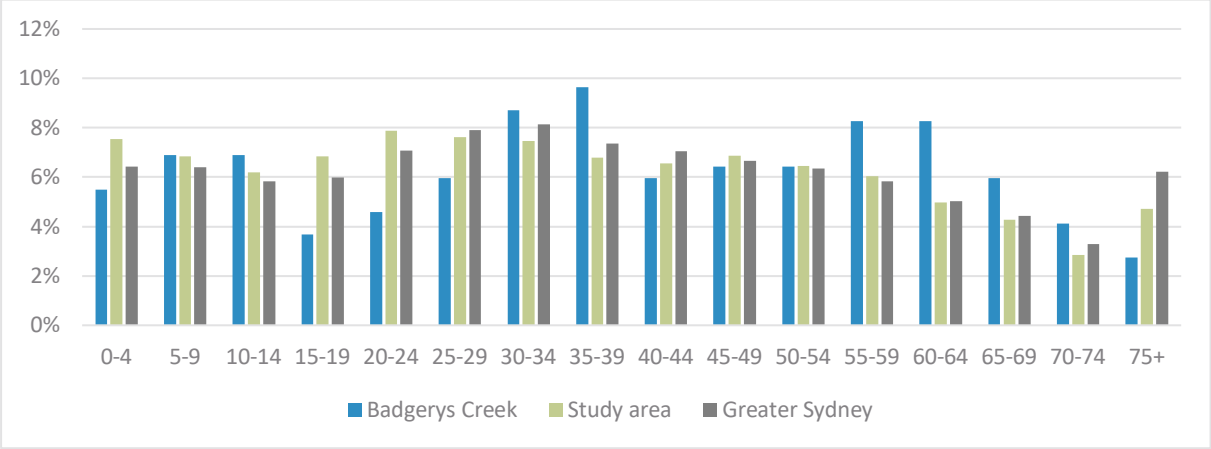
For context, the *Greater Sydney Region Plan*[4] sets out a forty-year vision and a twenty-year plan for the growth of Sydney. As such, the Western Sydney International and surrounds, including Badgerys Creek, are identified as a metropolitan cluster.

It is anticipated that Western Sydney International will be the economic catalyst to transform the Western Parkland City (including Liverpool) over the next 40 years. It will attract globally significant defence and aerospace activities and have significant freight and logistics strengths. The development of Western Sydney International and Badgerys Creek Aerotropolis, at its heart, will have the potential to agglomerate the economic activities of the city.

Demographic profile

The usual resident population of Badgerys Creek in 2016 was 225 people living in 74 dwellings, with an average household size of 3.0 people.

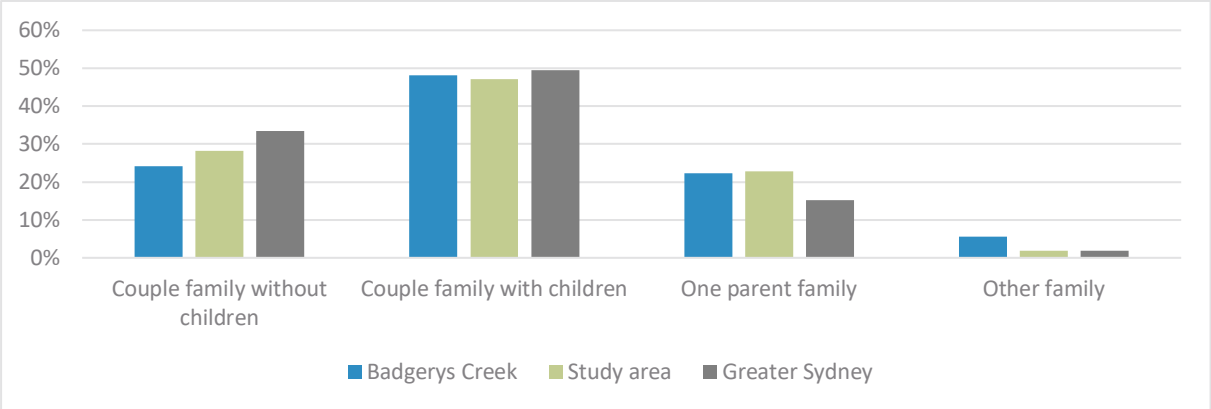
Figure 4-52: Badgerys Creek age structure



Source: ABS Tablebuilder data, 2016 Census

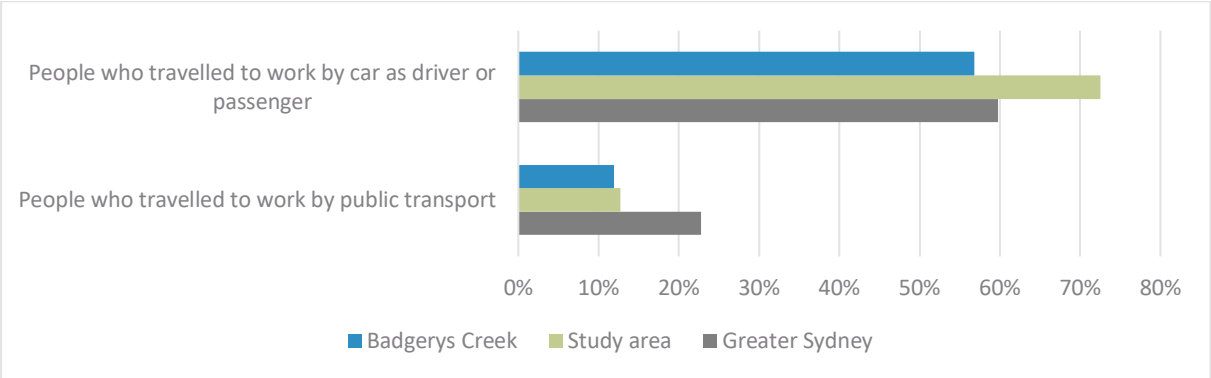
[4] Greater Sydney Commission (2018) Greater Sydney Region Plan – A Metropolis of Three Cities.

Figure 4-53: Badgerys Creek household type



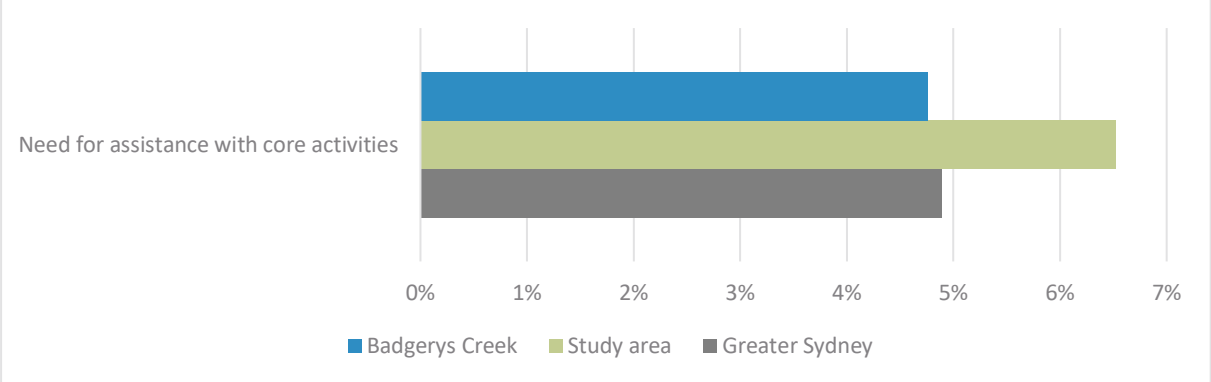
Source: ABS Tablebuilder data, 2016 Census

Figure 4-54: Badgerys Creek journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-55: Badgerys Creek need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Badgerys Creek community is characterised by:

- a high proportion of children (21.8 per cent compared to 18.7 per cent) and lower proportion of people aged 65 years and over (12.4 per cent compared to 13.9 per cent)
- a slightly lower proportion of Aboriginal and Torres Strait Islander population (1.3 per cent compared to 1.5 per cent)
- a low level of cultural diversity with 30.2 per cent of residents born overseas (compared to 42.9 per cent)

- an average proportion of residents living in a household where a language other than English is spoken, with 42.5 per cent (compared to 41.6 per cent)
- a higher average household size, with an average 3 persons per household (compared to 2.8 persons per household) and higher proportion of lone person households (24.2 per cent compared to 21.6 per cent)
- a low proportion of couples with children (48.1 per cent compared to 49.5 per cent)
- a low median weekly household income at $1,278 (compared to $1,750) and low unemployment rate at 4.8 per cent (compared to 6 per cent)
- low educational attainment with 26.7 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- high levels of disadvantage based on a SEIFA Index of Relative Socio-economic Disadvantage percentile of 12 amongst suburbs in NSW and an average proportion of resident with need for assistance with core activities (4.8 per cent compared to 4.9 per cent)
- low levels of public transport use for journeys to work (12.8 per cent compared to 22.8 per cent)
- a high proportion of people travelling to work by car (56.8 per cent compared to 59.8 per cent).

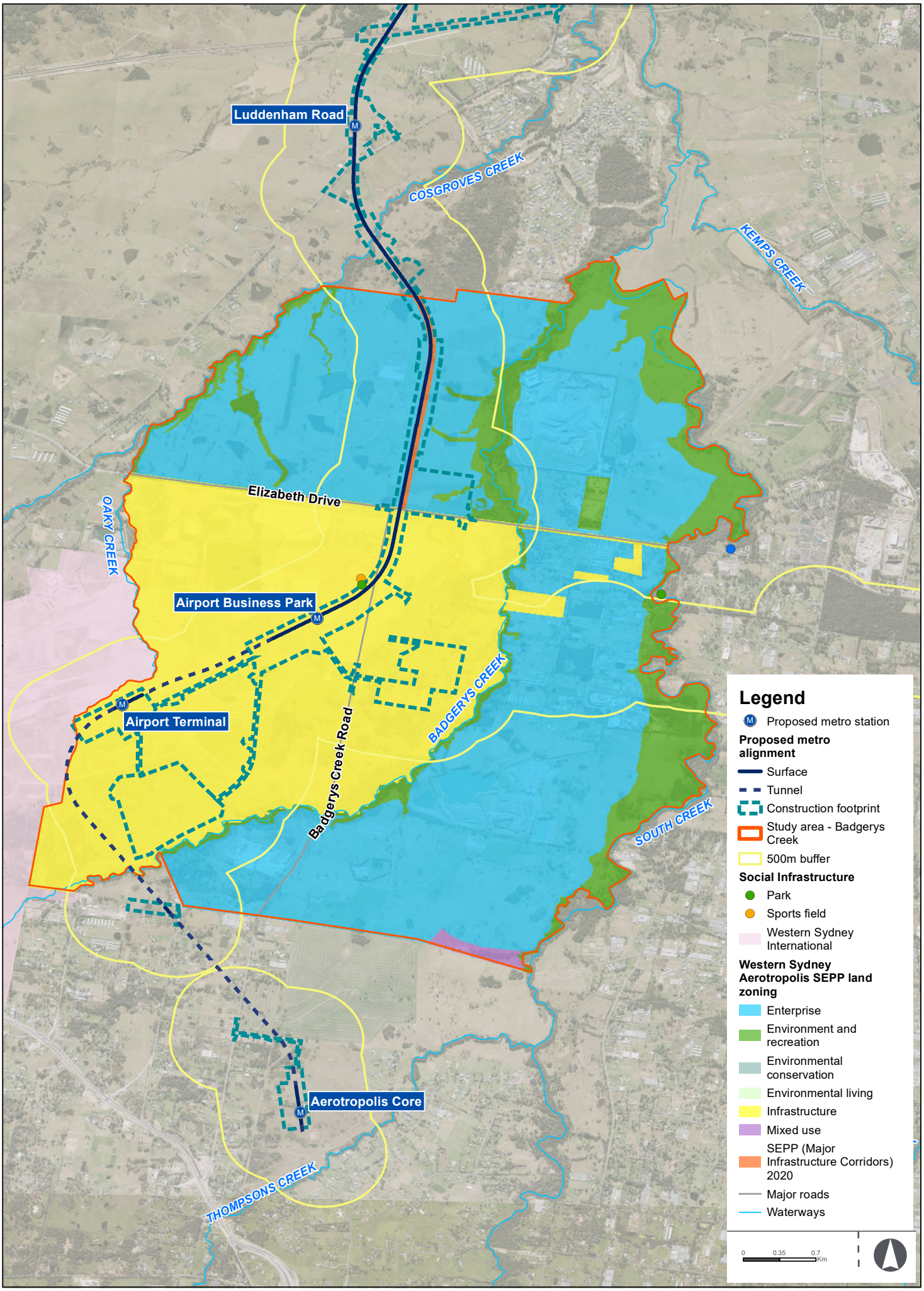
Land use and social infrastructure

The land surrounding Badgerys Creek is primarily of rural residential use. North of Elizabeth Drive, a substantial amount of land is occupied by the CSIRO Research Station, the University of Sydney MacGarvie Smith Veterinary Farm, and a landfill depot. The University of Sydney commercial farm in Badgerys Creek provides agricultural teaching and learning opportunities. Other land uses in the suburb include the Twin Creeks residential golf course estate and an existing private airfield located adjacent to the southern side of the pipelines. A series of vegetated watercourses also run in a generally north–south direction and include South Creek, Badgerys Creek, Cosgroves Creek and Oakey Creek.

Bus routes to and from Liverpool City Centre service the suburb. The suburb used to have a school, the Badgerys Creek Primary School, but it was closed by the NSW Department of Education and Communities in December 2014.

Places of significance in the area included St John's Anglican Church Group, including Church (demolished) and Cemetery (Badgerys Creek Uniting Church). This facility is of community significance as many early families of the Badgerys Creek area are buried in the cemetery. The site also provides evidence of early native vegetation species of the area and introduced exotic plantings. All that remains on the site is the cemetery. The Church was removed in 1992, and it is understood the Western Sydney International project has obtained approval for removal of the cemetery (see Technical paper 4 (Non-Aboriginal heritage) of the Environmental Impact Statement).

There is no existing social infrastructure off-airport within Badgerys Creek. The social infrastructure identified in Figure 4-56 is understood to have been removed as a result of Western Sydney International construction.



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Badgerys Creek

Figure 4-56

Indicative only, subject to design development

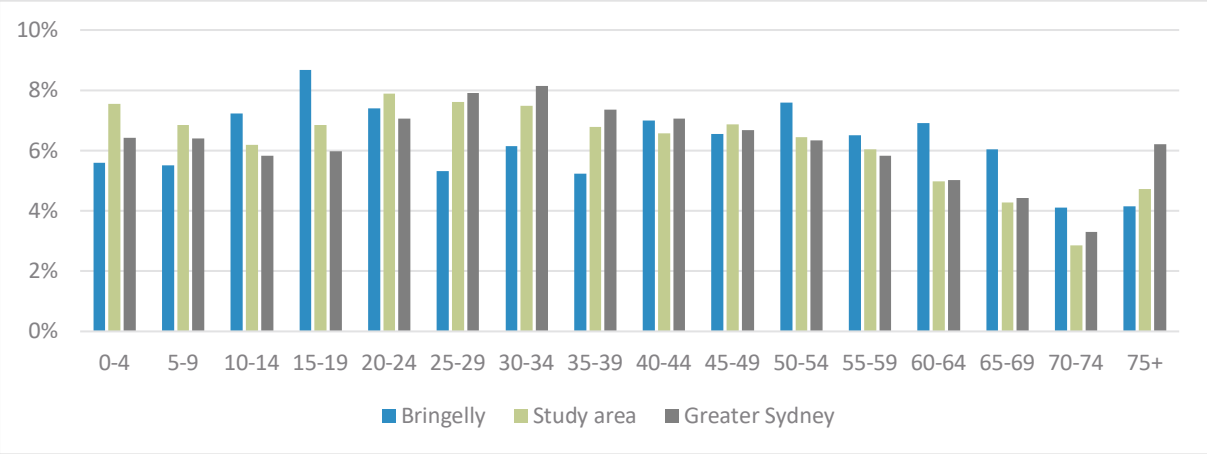
4.2.10 Bringelly

Bringelly is divided between Liverpool and Camden Councils. The suburb comprises low density, typically large, rural residential lots. This section considers the entire suburb.

Demographic profile

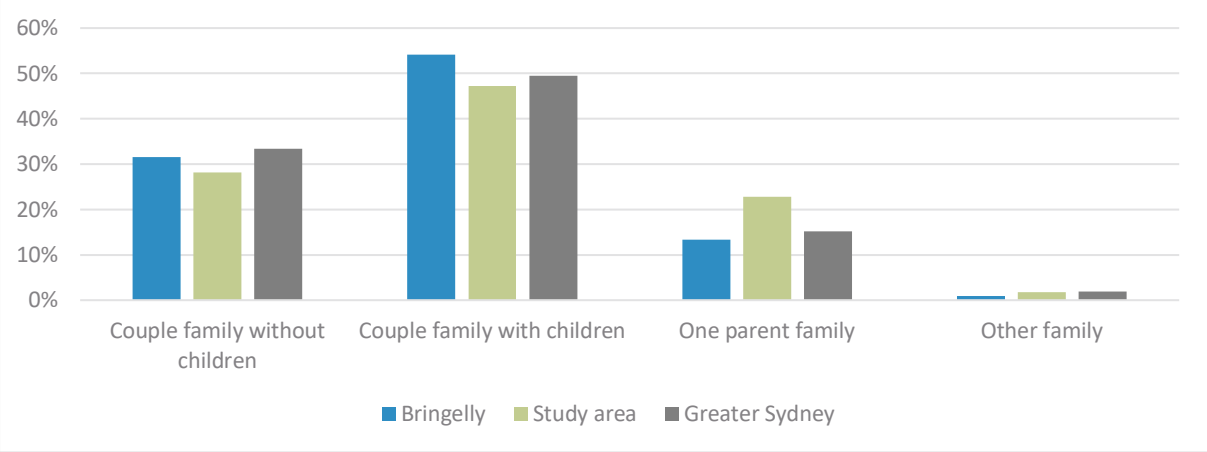
The usual resident population of Bringelly in 2016 was 2,507 people living in 784 dwellings, with an average household size of 3.4 people.

Figure 4-57: Bringelly age structure



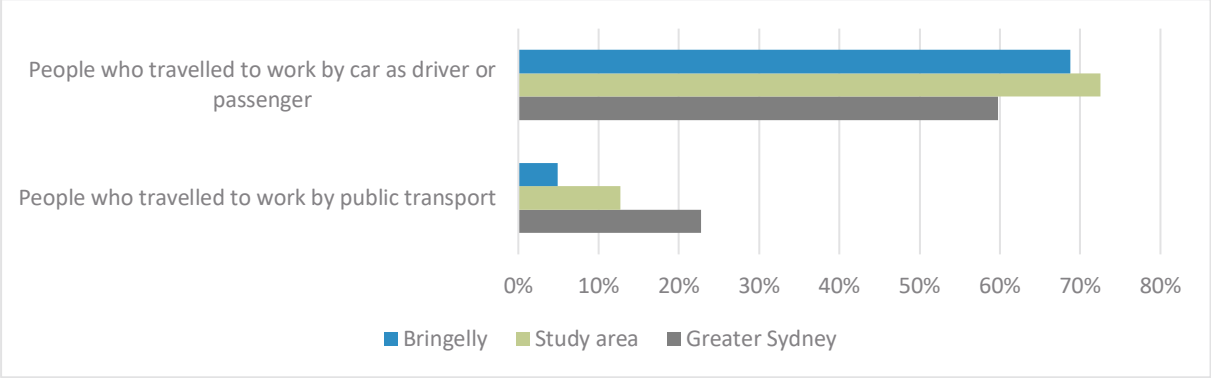
ABS Tablebuilder data, 2016 Census

Figure 4-58: Bringelly household type



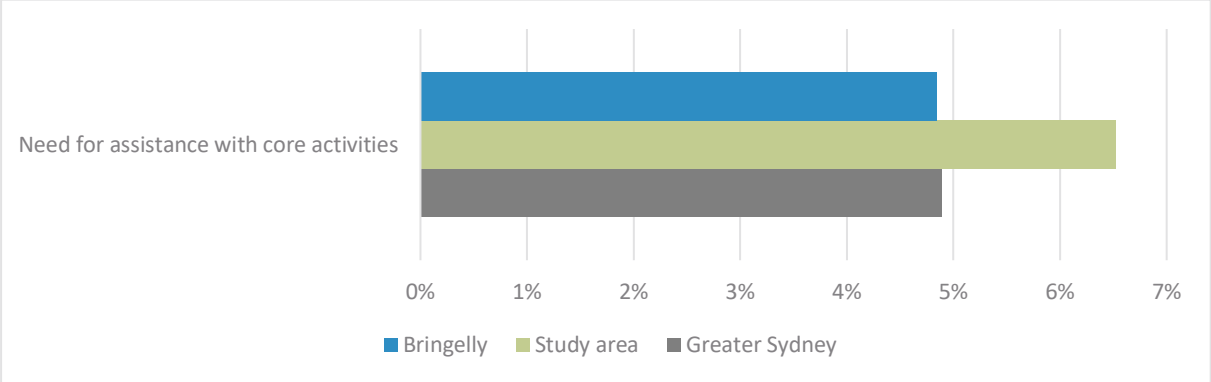
ABS Tablebuilder data, 2016 Census

Figure 4-59: Bringelly journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-60: Bringelly need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Bringelly community was characterised by:

- a similar proportion of children (18.3 per cent compared to 18.7 per cent) and higher proportion of people aged 65 years and over (14.3 per cent compared to 13.9 per cent)
- lower levels of cultural diversity with 22.5 per cent of residents born overseas (compared to 42.9 per cent) and a lower proportion of residents living in a household where a language other than English is spoken with 31.2 per cent (compared to 41.6 per cent)
- a higher than average household size with 3.4 persons per household (compared to 2.8 persons per household) and lower proportion of lone person households (11.7 per cent compared to 21.6 per cent)
- a high proportion of couples with children (54.1 per cent compared to 49.5 per cent)
- similar median weekly household income at $1,700 (compared to $1,750) and lower unemployment rate at 5.1 per cent (compared to 6 per cent)
- low educational attainment with 34.8 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- average levels of disadvantage with a SEIFA Index of Relative Socio-economic Disadvantage percentile of 53 amongst suburbs in NSW and an average proportion of resident with need for assistance with core activities (4.8 per cent compared to 4.9 per cent)
- a similar rate of residents requiring assistance with core activities (4.8 per cent compared to 4.9 per cent)
- a lower proportion of residents travelling to work by public transport
- a high proportion of people travelling to work by car (68.8 per cent compared to 59.8 per cent) and higher car ownership (94.9 per cent compared to 81.4 per cent).

Land use and social infrastructure

Existing land uses in this area comprise a mixture of rural industries and rural-residential properties. Land use to the west of South Creek is predominantly rural, with a rural-residential subdivision at Kelvin Park.

Kelvin Park, including the homestead complex and remnant of farmland, is identified has having local and State heritage significance, as described in Technical paper 4 (Non-Aboriginal heritage). It retains important historic views to the east to Thompsons Creek and beyond to South Creek. The early numerous tree plantings as well as the remaining details of driveways, fencing and entrances contribute to making the site a notable landmark in the area. The site also retains views of other historically related rural landscapes beyond the current boundaries such as the pasture and stands of trees to the north. Both views contribute to the site's historic and social significance. The farm setting of the heritage listed 'Kelvin Park Group' which comprises several landmark trees, is important to local character.

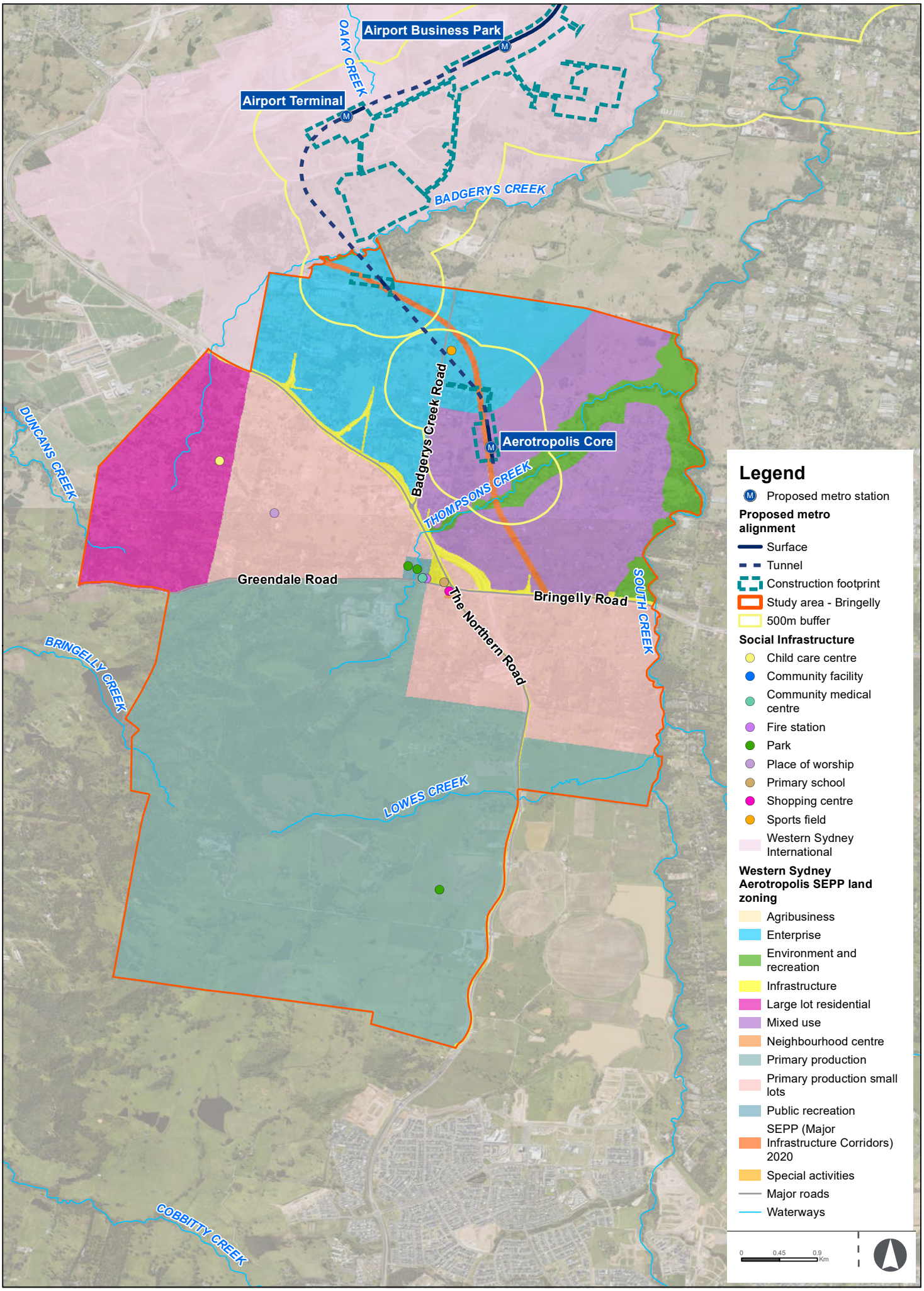
South Creek, Badgerys Creek and Thompsons Creek are identified as important regional landscape features and are of regional landscape sensitivity in the area.

Bus routes to and from Liverpool City Centre service the suburb. Bringelly has road access to Penrith and Camden via The Northern Road and to Liverpool via Bringelly Road. The only public transport in the area is the Route 853/855/856 bus service connecting Bringelly to Liverpool via Rossmore, Austral, Hoxton Park and Cartwright.

Social infrastructure near in Bringelly is listed in Table 4-11 and shown in Figure 4-39.

Table 4-13: Social infrastructure in Bringelly

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Bringelly Public School	The Northern Road	Enrolment of 122 students, catering for Kindergarten to Year 6.	No
Community facilities			
Bringelly Community Centre	Lot 1 Greendale Road/Northern Road	Facility situated within Bringelly Park beside Bringelly Public School, with a main function room that holds up to 120 people. Community facilities and private functions are held in this facility.	No
Child care			
Bringelly Child Care Centre	Francis Street	Privately owned long day-care. Enrolment of 39 children aged 6 weeks - pre-school age.	No
Open space, sport and recreation			
Bringelly Park	Greendale Road	Home of Bringelly Sports Club with community facilities including car park, amenity building, playground equipment and a community building (Bringelly Community Centre)	No
Place of worship			
Bringelly Vineyard Church	Bringelly Road	Baptist church and charity organisation that holds community events and offers community support services targeted to vulnerable groups, including health awareness, crisis intervention or other life or relational issues.	No



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Social infrastructure near the project at Bringelly

Figure 4-61

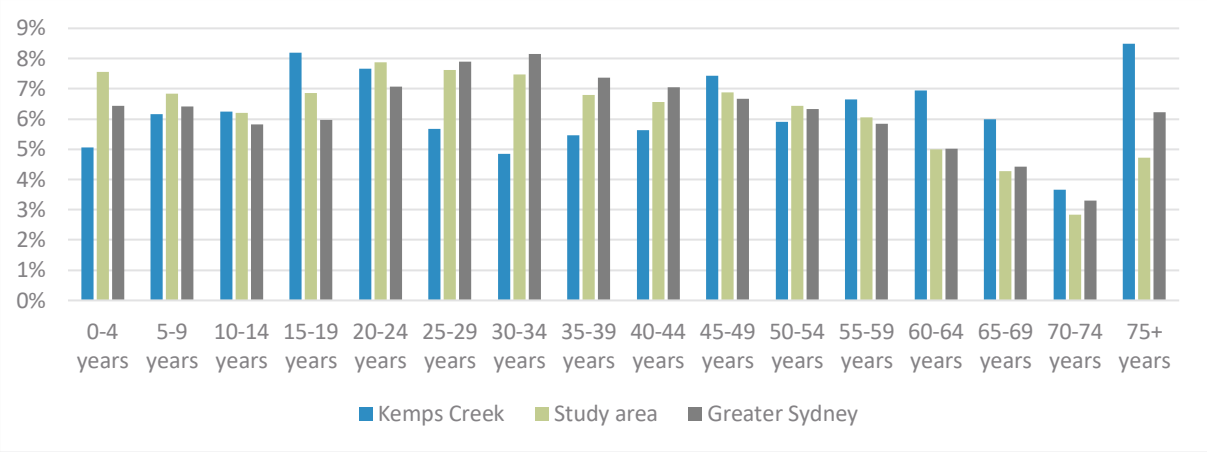
4.2.11 Kemps Creek

Kemps Creek is a suburb to the east of the construction area, lying towards Liverpool. The suburb comprises low density, typically large, rural residential lots.

Demographic profile

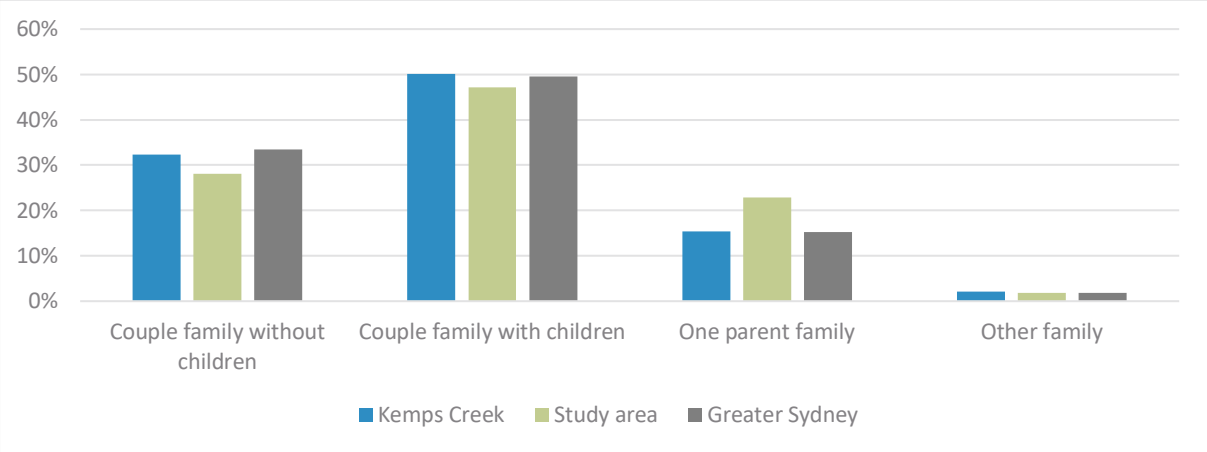
The usual resident population of Kemps Creek in 2016 was 2,268 people residing in 700 dwellings, with an average household size of 3.4 people.

Figure 4-62: Kemps Creek age structure



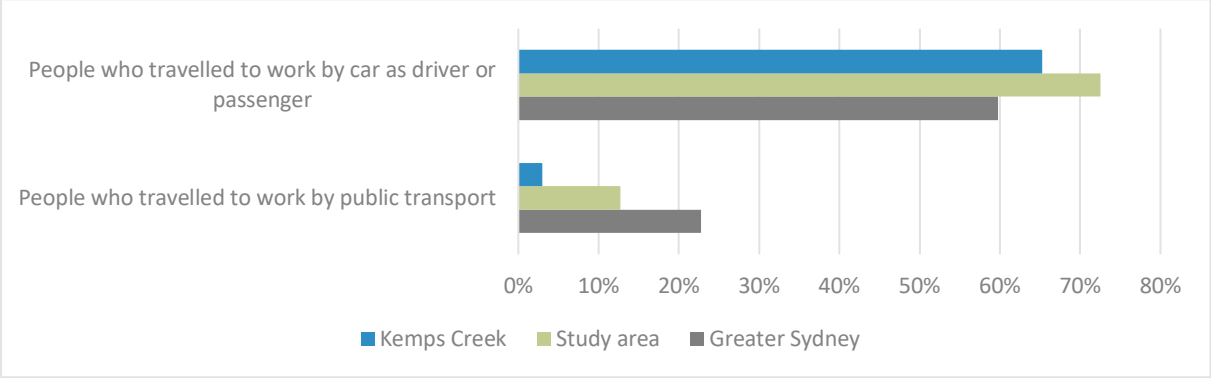
ABS Tablebuilder data, 2016 Census

Figure 4-63: Kemps Creek household type



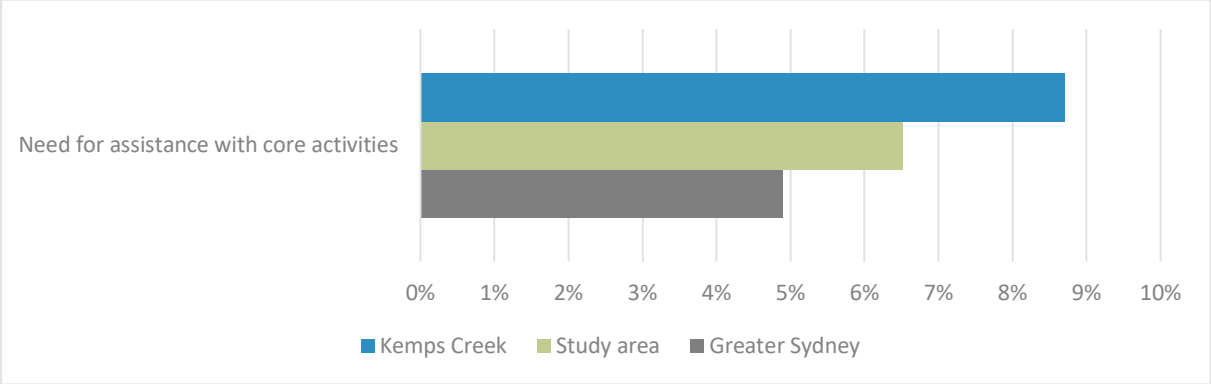
ABS Tablebuilder data, 2016 Census

Figure 4-64: Kemps Creek journey to work



Source: ABS Tablebuilder data, 2016 Census

Figure 4-65: Kemps Creek need for assistance with core activities



Source: ABS Tablebuilder data, 2016 Census

Compared to Greater Sydney, the Kemps Creek community was characterised by:

- a smaller proportion of children (17.5 per cent compared to 18.7 per cent) and higher proportion of people aged 65 years and over (18.1 per cent compared to 13.9 per cent)
- higher levels of cultural diversity with 39.1 per cent of residents born overseas (compared to 36.7 per cent) and a high proportion of residents speaking a language other than English with 50 per cent (compared to 35.8 per cent)
- a higher than average household size with 3.4 persons per household (compared to 2.8 persons per household) and lower proportion of lone person households (11.5 per cent compared to 21.6 per cent)
- an average proportion of couples with children (50.1 per cent compared to 49.5 per cent)
- low median weekly household income at $1,613 (compared to $1,750) and higher unemployment rate at 6.9 per cent (compared to 6 per cent)
- low educational attainment with 34.4 per cent of residents having completed Year 12 or equivalent (compared to 60 per cent)
- a greater level of disadvantage based on a SEIFA Index of Socio-economic Disadvantage percentile of 30
- average need for assistance with core activities (4.4 per cent compared to 4.9 per cent)
- a high proportion of people travelling to work by car (59.5 per cent compared to 59.8 per cent)
- a lower proportion of people walking to work (2.5 per cent compared to 4 per cent).

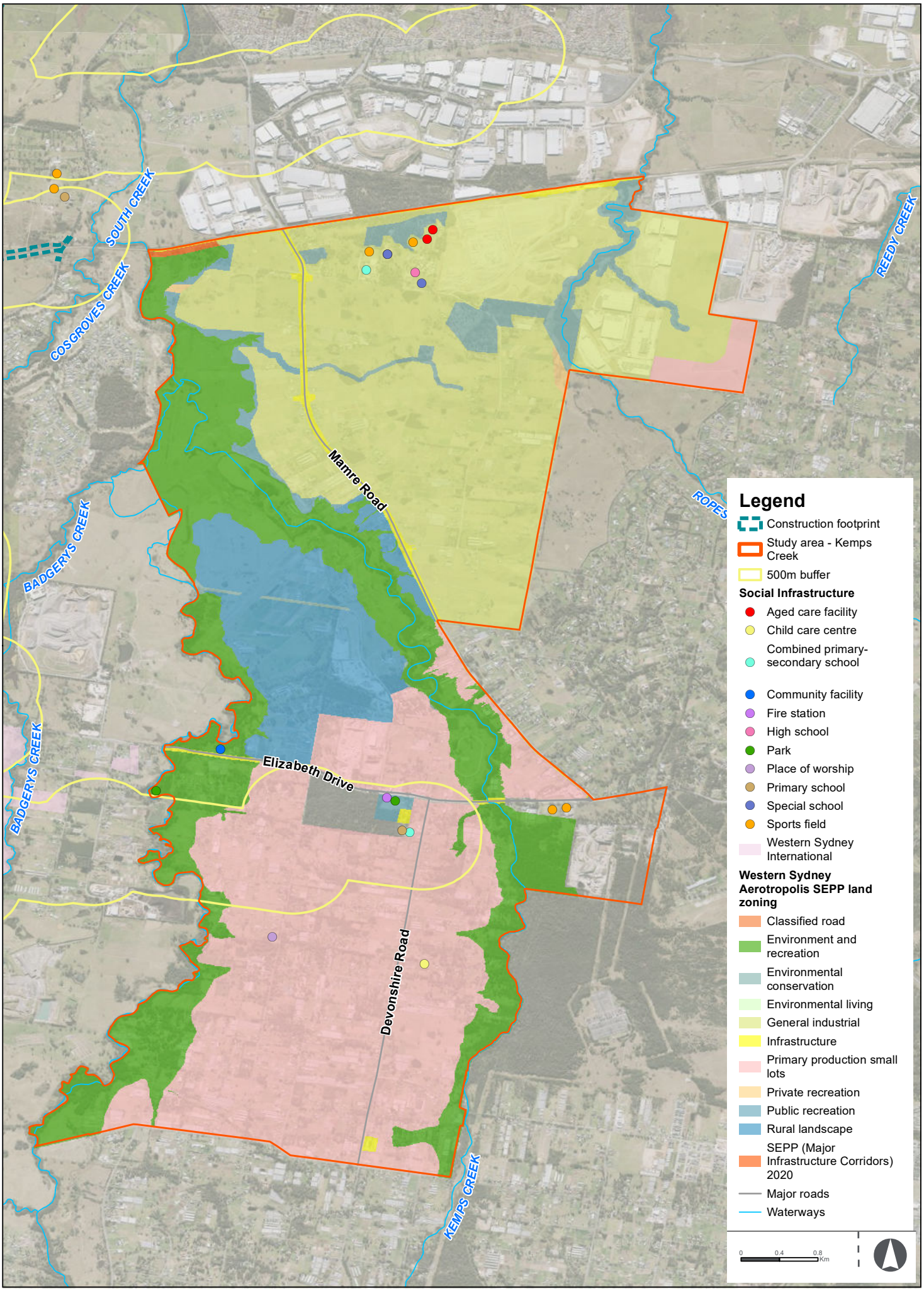
Land use and social infrastructure

Land in Kemps Creek is almost entirely zoned for rural uses, with primary production lands to the north and primary production small lots to the south. There are two waterways with environmental protection zoning surrounding them. At the mid latitude of the area, there are two areas of land designated as Public Recreation - Regional under the State Environmental Planning Policy (Regional Growth Centres). In the far north east of the area, there is a partially developed area of industrially zoned land, forming part of the Western Sydney Employment Area.

Social infrastructure near in Kemps Creek is listed in Table 4-14 and shown in Figure 4-66.

Table 4-14: Social infrastructure in Kemps Creek

Social infrastructure	Address	Description / comment	Within 500m of the construction footprint
Education			
Emmaus Catholic College	Bakers Lane	Systemic Catholic Secondary School	No
Christadelphian Heritage College Sydney	Cross Street and Devonshire Road	Other religious affiliation secondary school	Yes
Mamre Anglican School	Bakers Lane	K-12 Anglican School	No
Trinity Catholic Primary School	Bakers Lane	Systemic Catholic Primary School	No
Kemps Creek Public School	Cross Street	Public primary school with 150 FTE enrolments	Yes
Emergency services			
Kemps Creek Rural Fire Brigade	Elizabeth Drive	Rural fire brigade	Yes
Open space, sport and recreation			
Emmaus College Oval	Bakers Lane	Oval	No
Bill Anderson Park	Elizabeth Drive	2x rugby fields; hockey field	Yes
Kemps Creek Sporting and Bowling Club	Elizabeth Drive	Baseball field; bowling greens	No
Overett Park	Overett Avenue	Sports field/oval	No
Place of worship			
Our Lady Queen of Peace	Western Road	Catholic Church with nearby cemetery	No



Sydney Metro – Western Sydney Airport

Social infrastructure near the project at Kemps Creek

Figure 4-66

Indicative only, subject to design development

4.3 Summary of on-airport environment

On-airport components of the project are located within the suburb of Badgerys Creek for which, a demographic snapshot is provided in Section 4.2.10. The land to which on-airport component of this project applies is zoned under LLEP 2008 as SP2 Special Activities (Commonwealth Activities), with the exception of two portions of RU1 Primary Production zoned land at the western and north-western extremities.

The northern portion of the airport site along Elizabeth Drive and Bringelly Road is undergoing extensive site preparation, clearing and earthworks associated with the construction of Stage 1 of Western Sydney International. The bulk of the airport site would be developed for the purpose of airport uses, with the exception of environmental conservation areas along creek lines.

A review of recent aerial imagery has shown the airport site has largely been cleared of buildings, fields and other agricultural facilities associated with previous uses, in line with project approvals. The exceptions are the Airport Experience Centre and Western Sydney Airport site offices, which are not located near the construction footprint..

Active land uses in the area in 2018 included:

- agricultural, forestry and fishing
- construction
- retail trade
- transport, postal and warehousing.

These activities are understood to be approved and would be removed during the completion of Stage 1 of the Western Sydney International project.

5.0 ASSESSMENT OF CONSTRUCTION IMPACTS

This chapter discusses the socio-economic impacts that may be experienced across the study area due to construction works associated with the project. Key features of the project are identified in Chapter 1 and a detailed description of the project is provided in Chapter 8 (Project description - construction) of the Environmental Impact Statement.

The entire construction program is estimated to be completed over 5.5 years with construction works for stations, service facilities and the stabling and maintenance facilities estimated to be completed by 2026. Construction works associated with the establishment of construction and bulk power routes are estimated to be completed over the course of four and six months. For the purposes of this assessment, it has been assumed that these works would be stages and not result in impacts for the full four to six month period.

Construction of the project has the potential to affect residents, businesses, road users, social infrastructure users and the wider community, both positively and negatively. This chapter assesses the likelihood and consequence of experiencing direct and indirect impacts associated with the construction of the project.

An assessment of the proposed project activities has been undertaken to determine the potential impacts and the social risk rating of those impacts, following the method discussed in Chapter 3.

Relevant mitigation measures from Environmental Impact Statement chapters and technical papers designed to avoid, minimise, manage and mitigate impacts have been considered, and residual post-mitigation ratings have been assigned. Mitigation measures have not been repeated in full in this chapter, but the relevant location of mitigation measures have been cited. Additional detail regarding mitigation measures in the context of mitigation socio-economic impacts is provided in Chapter 8 of this SEIA, with additional detail in Chapter 27 (Synthesis) of the Environmental Impact Statement. For reference, key mitigation plans and frameworks relevant for construction of the project discussed in that chapter include:

- Construction Environmental Management Framework (CEMF)
- Construction Traffic Management Framework (CTMF)
- Construction Noise and Vibration Standard (CNVS)
- Overarching Community Communications Strategy (OCCS)
- Construction Environmental Management Plans (CEMPs).

While the social risk rating of the predicted construction impacts can be high, in most instances they are temporary with impacts dissipating upon construction completion, unless specifically identified to be a long-term impact. This provides a conservative estimate of the potential socio-economic impacts associated with construction of the project.

5.1 Construction impacts (off-airport)

5.1.1 Way of life

Construction activities have the potential to impact on way of life through disruptions to the established routines of residents and businesses in areas surrounding construction sites. Construction activities can also change the way that people interact with each other and the way that residents and businesses interact with their surrounding environment. Reduced amenity arising from noise and vibration, traffic and visual impacts associated with construction activities can impact on the enjoyment of everyday activities and social interactions in the local area. For example, high noise levels that may affect the ability to enjoy a place, human health and wellbeing, daily routine, employee productivity, the ability to communicate and interact, and the ambience of social infrastructure and workplaces generally. Potential impacts to way of life as a result of construction activities are documented in Table 5-1.

Those that may be affected by impacts to way of life would include individuals living, working in or visiting the study area as well as community groups, organisations and businesses. Overall, the study area has had relatively low levels of population mobility, with higher proportions of people who lived at the same address five years prior to the 2016 Census compared to Greater Sydney. In particular, North St Marys, Claremont Meadows, Orchard Hills, Badgerys Creek and Bringelly were characterised by communities with infrequent changes in residential address. This suggests that residents in the study area have well -established patterns to way of life and there is potential for construction impacts to way of life to be felt strongly by the community.

The study area has relatively high levels of people in need of assistance from self-care, communication or mobility services, due to illness, age or disability when compared with Greater Sydney, particularly at North St Marys, St Marys, Badgerys Creek, and Werrington with North St Marys, St Marys and Badgerys Creek also having a high proportion of the population aged 65 years and over. Construction impacts that affect movement networks require close consideration. The relatively high proportions of people born overseas, people who speak a language other than English at home and people who do not speak English well or at all suggests that mitigation measures would need to consider community languages.

Table 5-1: Potential construction impacts to way of life

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	Construction can reduce the amenity of the surrounding areas, impacting on lifestyle, recreation and work patterns. Amenity impacts are discussed in Technical paper 2 (Noise and vibration) and Chapter 22 (Air quality) of the Environmental Impact Statement. Responses to the community survey indicated that disruptions associated with construction were a concern for some respondents. Construction noise, dust, vibrations, material handling and movement of construction vehicles can all impact on way of life through reduced amenity, particularly where residential and non-residential sensitive receivers (residents, businesses and social infrastructure) are affected. Impacts to amenity are anticipated to be temporary in nature and change in level of impact based on specific construction activities, such as use of hydraulic hammers and concrete vibrators. Impacts to amenity may occur: • in North St Marys, St Marys and Werrington residents, businesses and supporting social infrastructure • along the proposed bulk and construction power routes in Claremont Meadows, Erskine Park and Kemps Creek caused by trenching and increased construction vehicle movements to facilitate trenching works • along the surface and viaduct portions of the rail corridor between Blaxland Creek and Elizabeth Drive where visual and noise impacts are anticipated.	Likely	Moderate	High	• Implement CEMF • Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration) • Implement recommendations of Chapter 22 (Air quality) of the Environmental Impact Statement	Possible	Minor	Moderate
	Businesses such as cafes and restaurants, beauticians, childcare centres and offices, can be dependent on pleasant amenity for their day to day operations. Alterations in amenity can deter customers, reduce passing trade and can potentially change customer behaviour. This can have effects on the way of life of business operators, employees and customers.	Likely	Moderate	High	• Implement CEMF • Implement CTMF • Implement recommendations of Technical paper 9 (Landscape and visual)	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	As identified in Technical paper 2 (Noise and vibration), Technical paper 9 (Landscape and visual) and Chapter 22 (Air quality) of the Environmental Impact Statement, construction activities in the St Marys Town Centre would impact on the amenity of the business environment particularly for businesses directly adjoining the construction footprint.							
	Reduced access to retail services and employment through site acquisitions, including Station Plaza at St Marys, would impact on shopping convenience and routines. Access to groceries and food retailing would be reduced through the closure of Coles supermarket. While St Marys offers alternative supermarkets (Woolworths and Aldi), there would be a reduction in grocery and fresh food floorspace in St Marys Town Centre arising from the closure of Coles supermarket.	Likely	Moderate	High	• Implement CEMF • Implement recommendations of Technical paper 9 (Landscape and visual)	Possible	Minor	Moderate
Access	Changes in access to work, recreation, services and shopping facilities may be reduced due to increased congestion on broader transport networks, necessitating temporary changes to way of life. Responses to the community survey indicated that traffic management and road and traffic changes associated with construction were a concern for some respondents. Potential impacts have been identified in Technical paper 1 (Transport) of the Environmental Impact Statement associated with increased vehicular movements and construction activity through spoil removal, construction vehicles, material and equipment transport. Technical paper 1 (Transport) of the Environmental Impact Statement identifies local impacts to: • road network users at Queen Street and portions of the Great Western Highway during construction, with potential for delays • road users around station and services facility construction sites • pedestrians and cyclists needing to access the existing St Marys Station • public transport users arising from changes to the bus network within St Marys Town Centre and relocation of bus stops • road network users in Orchard Hills (Kent Road and Lansdowne Road) noting that a significantly higher proportion of people travel to work	Likely	Moderate	High	• Implement CEMF • Implement CTMF • Implement OCCS • Implement recommendations Technical paper 1 (Transport).	Likely	Minor	High

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	by car, compared to Greater Sydney (72.2 per cent compared to 59.8 per cent).							
	Legibility of access refers to the clarity with which a location can be navigated. Changes in legibility may impact more severely on the significant proportion of the population, particularly in St Marys, which do not speak English well or at all and those with mobility limitations. As discussed in detail in Technical paper 1 (Transport) of the Environmental Impact Statement, it would be likely that there would be changes in visual cues and signposted wayfinding, resulting in temporary pedestrian access changes to St Marys Station. Changes to pedestrian routes, particularly those that provide less direct access, would potentially cause confusion and require routine users to adjust their behaviour to compensate.	Possible	Minor	Moderate	• Implement OCCS, including ensure that public communications are made available in formats that are usable for residents with lower English proficiency. • Implement CTMF • Implement CEMF • Implement recommendations of Technical paper 1 (Transport), including implement wayfinding measures, including in community languages.	Unlikely	Minor	Low
	Regular access patterns for pedestrians would be impacted along the bulk and construction power supply routes during their construction. This would potentially cause delays, changes in travel times or deferment of trips, with associated temporary impacts to daily activities and way of life in the immediate area around construction sites in: • Erskine Park • Claremont Meadows. As discussed at the beginning of this Chapter, it is assumed power supply route establishment would be completed on a rolling basis.	Possible	Minor	Moderate	• Implement CEMF • Implement CTMF • Implement recommendations of Technical paper 1 (Transport).	Unlikely	Minor	Low
	Changes in routine for residents and businesses could result from temporary traffic controls and diversions associated with construction of: • the viaduct over Luddenham Road	Possible	Minor	Moderate	• Implement CEMF • Implement CTMF	Possible	Minor	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	• bulk and construction power supply routes in Claremont Meadows and Erskine Park. This is most likely to occur: Potential impacts to way of life could occur through delayed or deferred trips and movements. Impacts would be limited to when relevant construction works in the area are taking place and would resolve when the section of corridor/power supply route is complete.				• Implement recommendations of Technical paper 1 (Transport) • Schedule road works at night where possible			
	Local transport network changes (road, public transport, cycling and pedestrian) around major commercial and service centres could result in changes in routine for particularly sensitive groups. Sensitive groups, such as those relying on essential social services (e.g. Centrelink – Services Australia or other government/non-government services) would be more acutely affected, particularly at St Marys commercial precinct and station. In this area, road closures, street reconfiguration, removal of parking (off-street and on-street) and the demolition of Station Plaza and its associated carpark, would impact on the routines for residents and businesses. As a major centre, people visit St Marys and North St Marys for shopping, employment, services and transport. Nine per cent of residents in this suburb need assistance with core activities, almost double the average for Greater Sydney. As discussed in Section 4.2, the suburbs of St Marys and North St Marys also have high proportions of disadvantaged residents based on SEIFA and above average Aboriginal populations. These people may be more vulnerable to changes in access arrangements include access to support services.	Likely	Moderate	High	• Implement CEMF • Implement CTMF • Implement recommendations of Technical paper 1 (Transport).	Possible	Minor	Moderate
	Reduced access to parking can impact on living and working patterns, particularly where access to essential services are located. St Marys is a hub for a variety of essential social services (e.g. Centrelink – Services Australia or other government/non-government services), in addition to being a major shopping centre. Reduced off-street and on-street parking	Possible	Minor	Moderate	• Implement CTMF • Implement recommendations of Technical paper 1 (Transport). • Work with agencies to investigate options for	Unlikely	Minor	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	would impact access to these services for surrounding residents and reduce parking access for business owners within these centres. As discussed in Technical paper 1 (Transport) of the Environmental Impact Statement, it is likely that there would be parking capacity in the surrounding area. This availability has been considered as a reduction in the overall impact, which reflects the burden associated with increased walking times.				additional temporary parking at St Marys during construction			
Community	The sense of place and being that accompanies being part of a community is an essential part of way of life. Established communities exist along the project alignment, with the most centralised communities in proximity to proposed construction activities in St Marys, Claremont Meadows and Orchard Hills. These communities would be substantially affected by the proposed construction activities. Construction activities and property acquisition along the alignment would pose a risk to the day-to-day activities that underpin the communities that are integral to way of life. Loss of connections within the community, connections to the past and the need to establish a new way of life from a new location can also be negative impacts. Impacts to a community's way of life: • would be most significantly felt in St Marys where businesses and certain facilities (e.g. community centres) that support the function of the wider community would be closed or have limited access • would be associated with property acquisitions in Orchard Hills, Luddenham and Bringelly would affect way of life through altered community composition and networks	Possible	Moderate	High	• Place Management (see Section 8.2) • Implement CEMF • Implement CTMF • Implement recommendations of the Technical paper 9 (Landscape and visual).	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Economic	Businesses rely on passing trade and efficient access for deliveries and customers and to premises for day to day operations. Changes to loading areas, increased traffic congestion and road alterations can increase travel time and costs effecting supply chain efficiencies and business revenue. The construction works at St Marys have the potential to impact on the daily routine and function of local businesses. This may have flow on effects to the local and regional economy.	Possible	Moderate	High	• Implement CEMF • Implement CTMF • Implement recommendations of the Technical paper 1 (Transport).	Possible	Minor	Moderate

5.1.3 Community

Community impacts are those that affect community composition, cohesion and character as well as how community's function and their sense of place. Community composition may be affected by an influx of a large construction workforce to the study area as well as property acquisitions that result in the relocation of community members and businesses. Long-term population growth stimulated by revitalised station precinct development could also have implications for community cohesion.

The presence of culturally diverse communities, as well as concentrations of Aboriginal and Torres Strait Islander residents along the project alignment highlights the need for the project to be sensitive of the unique needs of these community groups.

A key consideration is the study area's ability to continue to host community events during the construction period, including neighbourhood street fairs, festivals, exhibitions and markets, which foster a sense of community and local identity. The community of the study area highly values its rural and recreational land and any changes to the character of these spaces may impact on the community.

Changes to community can also occur through business displacement which would reduce local employment opportunities, increasing the number of people seeking work, and consequently increasing unemployment rates. Those who may be most vulnerable to unemployment are over represented in the study area including those close to retirement age and those with limited skill sets. The displacement of businesses also could diminish social ties between businesses, their supply chain and their customer and employment base.

Construction of the project would produce a temporary increase in workers in the study area. As discussed in Chapter 8 (Project description – construction), the project is anticipated to support around 14,000 jobs during construction. Of these, an anticipated peak workforce of 3,000 persons would directly be associated with construction of the project. Further details of the distribution of the workforce are in Chapter 8 (Project description – construction) of the Environmental Impact Statement.

Table 5-2: Potential construction impacts to community

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	Reduced amenity can arise from changes to the urban fabric of a place, disrupting the way in which spaces are utilised (e.g. formal and informal community meeting places) and the function and character of the community. Responses to the community survey indicated that the potential for construction to result in environmental impacts and loss in open space, a type of community meeting space, was a concern for some respondents. Construction of the project may result in temporary impacts to the community spaces due to changes in amenity, including: • Changes to the streetscape of St Marys, with the demolition of established buildings and loss of office, retail and other service-related businesses. This would change the character of the environment and potentially reduce community cohesion as established connections with businesses and places would potentially be severed or affected. • Impact upon the amenity of formal open space area in Claremont Meadows (such as Myrtle Road Fields) associated with the construction power route. • Impact upon the amenity of informal and privately-owned open space near construction areas in the rural and semi-rural areas south of the M4 Western Motorway, where public community spaces are uncommon. • Affect the character and desirability of impacted community and open space and most likely temporarily reducing community use during construction. Shorter-term construction works, such as establishing construction and bulk power supply would have a lesser overall impact than longer-term corridor and station construction works.	Likely	Moderate	High	• Implement CEMF • Implement recommendations of Technical paper 9 (Landscape and visual) • Incorporate creative expression opportunities (see Section 8.2) related to community identity and visual amenity	Likely	Minor	High
	Specific groups meet or have attachment to particular places or locations which sometimes grow into culturally-specific hubs for minority communities. A reduction of available space and services offered within St Marys Town Centre, as described above, could have a disproportionate	Possible	Moderate	Moderate	• Place Management (see Section 8.2) • Incorporate creative expression opportunities	Possible	Minor	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	impact on these sensitive communities and over time, could result in reduced diversity in the centre. St Marys is a major service centre at the heart of culturally and linguistically diverse area and the overall makeup of businesses, services and facilities in the centre reflect this diverse local character. The groups that rely on these services and facilities would be disproportionately affected by the loss of businesses to be acquired and demolished. It is likely that many of these businesses and services would have located in St Marys because of the proximity of these communities. As noted in Section 4.2.2, vacancies were observed to be low along the Queen Street portion of St Marys. As such, businesses may be unable to relocate their operations until vacant space is available. Available space may not be available in the short-term.				(see Section 8.2) related to community identity and visual amenity			
	Construction activity has the potential to create barriers in the public realm, particularly where the nature of the construction follows a linear alignment (e.g. for a corridor, pipe or cable). Physical barriers can impact on the amenity of surrounding areas (through reducing movement/ interactivity) and potentially divide surrounding communities. Localised impacts are likely to be short-term as a result of the construction of the bulk power supply route at the following locations: • Claremont Meadows, works along Gipps Street, San Diego Street and Nullaga Way • Erskine Park, trenching along Erskine Road and Lenore Drive • Kemps Creek, trenching along Cross Street and Western Road Other temporary and short-term barriers are anticipated surrounding station and services facility sites to allow for specific works, such as infrastructure establishment or plant movement. This would result in reduced or disrupted accessibility along the road network (temporary closures and construction traffic).	Likely	Moderate	High	• Implement of CEMF • Implement CTMF • Implement recommendations of Technical paper 1 (Transport), particularly those related to maintained pedestrian and vehicle access. • Minimise distance between pedestrian access points around construction sites, where practical.	Possible	Minor	Moderate
Built environment	Community function is heavily influenced by the physical qualities of the built environment surrounding them. The character of a community is	Likely	Moderate	High	• Implement CEMF	Likely	Minor	High

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	very dependent on the character of place and, consequently, changes in the character of place can be disruptive to the character of communities. The influence of this type of change to character and peoples' sense of place and belonging can be associated with the possible change to the residential character of this area due to increased construction activity and changes to the streetscape, or an influx of unfamiliar construction workers into the area. Specific instances of this impact have been identified with reference to Technical paper 1 (Transport) and Technical paper 2 (Noise and vibration) of the Environmental Impact Statement. These include: • Increases in construction related traffic along the regionally significant roads of Badgerys Creek Road and The Northern Road, which has the potential to disturb the quiet character of the area • At St Marys, changed access to the southern entry of the existing St Marys Station and changes to the streetscape along Station Street due to the removal of street trees and placement of hoardings which would temporarily change the character and identity of St Marys during the construction period. Potential community sensitivities to these impacts may be high given the locality is characterised by low density residential dwellings and a localised, low scale shopping precinct. Specific instances of this impact have been identified with reference to Technical paper 9 (Landscape and visual) of the Environmental Impact Statement These include: • In Claremont Meadows, where a change in the character and sense of place along Gipps Street due to the construction of the services facility, including the removal of scattered mature trees and the loss of a large area of vacant land which contributes to the open character along Gipps Street. This would result in a noticeable change to the character and sense of place. • In the rural and semi-rural areas surrounding the project, a significant departure from the current setting could be expected through removal of vegetation and buildings within the acquisition properties to the				• Implement recommendations of Technical paper 1 (Transport) • Implement recommendations of Technical paper 2 (Noise and vibration) • Implement recommendations of Technical paper 9 (Landscape and visual)			

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	east of Kent Road and establishment of a construction site. Hoarding and fencing enclosing the site would be highly visible. These temporary works would significantly change the character of the area. • Potential for loss of rural character through construction of the surface and viaduct sections of the project which would be visible across the rural setting, along with facilities such as batch plants, workshops, sheds and adjacent laydown areas with stacked segments. • The removal of vegetation near Cosgroves Creek, and establishment of a work site to construct a bridge crossing would impact on rural character. • The scale of the construction footprint and machinery used to construct services facilities, install the viaducts, bridge structures and stations (including earthmoving equipment, piling rig, crane etc) would contrast in scale and character to the surrounding communities.							
Community	Potential impacts to the makeup and identity of the community may arise from the introduction of significant numbers of workers to the study area. An influx of construction workers into the construction sites, who are not familiar with the local area and potentially not respectful of the local community and importance of place, is a potential cause of conflict and dissatisfaction for local residents.	Possible	Minor	Moderate	• Implement OCCS, with a focus on: – Advising the local community of the temporary workforce – Providing contact details for registering complaints – Establishing a protocol for complaints handling – Liaising with contractors as appropriate to encourage positive community interactions. – Place Management (see Section 8.2)	Unlikely	Minor	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	Reduced livelihood and capacity to derive a living can impact on community resourcing (e.g. household and business contributions to community groups, sports teams or charities). Where resources become scarce, individuals have to change working or living patterns/locations which impacts on community structure. Risks associated with this may arise through property acquisitions and changes to employment opportunities in an area. Economic risks associated with livelihood are discussed in Section 5.1.7.	Possible	Moderate	High	• Implement CEMF • Implement OCCS • Place Management (see Section 8.2)	Unlikely	Moderate	Moderate
	Construction work and acquisition would result in the loss or relocation of some community meeting spaces in St Marys (including local shops and cafes) and relocation of organisations providing social services or social enterprises, causing disruption to the wider community. These construction impacts would be experienced due to the acquisitions of commercial premises.	Likely	Moderate	High	• Implement CEMF • Place Management (see Section 8.2)	Possible	Minor	Moderate

5.1.4 Access to and use of infrastructure, services and facilities

Construction of the project may temporarily impact on people's ability to use and access social infrastructure, services and facilities. This may include:

- changes to the operation of services
- changes in amenity (dust, noise, vibrations), or
- changes to access.

Changes to services or routes of rail, bus, cycle and pedestrian networks including use of replacement rail buses for periods can also affect people's ability to access services and infrastructure. Similarly, potential changes in amenity may affect the appeal of community facilities and services and deter people from accessing services.

Loss of medical and planned childcare facilities in St Marys through acquisitions would impact service use, availability and convenience. As discussed in Section 4.2.2, St Marys has a disadvantaged population, with a high number of people in need of assistance compared to the remainder of the study area and the broader Greater Sydney area. This represents a relatively high risk for access relating to construction works in the area.

Table 5-3 identifies the potential impacts to access and use of infrastructure, services and facilities.

Table 5-3: Potential construction impacts to access to and use of infrastructure, services and facilities

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Access	Reduced access to and use of existing rail services can alter the function of centres and reduce access to services and facilities that many people rely on. As described in Section 4.2.2, St Marys Town Centre is a commercial and business district providing essential services for neighbouring suburbs. The existing St Marys Station is used by commuters traveling to other areas and by those visiting the centre. The Main Western Railway line which runs from St Marys, provides relatively high frequency services during peak periods into Sydney city via Parramatta, and a western connection to the Blue Mountains and Central Western NSW via Penrith. As described in Chapter 8 (Project description – construction), access to St Marys Station would generally be maintained during construction, however impacts may arise from: • the temporary closure or diversion of streets and pedestrian routes reducing the ease of access and making it more difficult for mobility impaired persons to access infrastructure • additional temporary traffic congestion, reduction in car parking and construction works around the station would reduce the desirability of the station for users, potentially resulting in less patronage on the rail network • track possessions where train services would be temporarily unavailable while construction activities within the rail corridor are undertaken(noting track possessions would generally occur over the weekend and at night and replacement services (i.e. buses) would be provided for rail customers) • temporary disruptions to the kiss-and-ride on Queen Street south of St Marys Station and Forrester Road to the north.	Likely	Minor	High	• Implement OCCS to manage community expectations for rails services during construction. • Implement recommendations of Technical paper 1 (Transport) regarding wayfinding signage, (including in community languages) and maintaining drop off areas. • Work with agencies to Investigate opportunities to provide alternate parking arrangements. • Prioritise track-possessions occurring outside main user times with replacement services provided.	Possible	Minimal	Moderate
	Temporary disruption to utilities, whether planned or unplanned, can reduce people's access to and use of infrastructure, including soft (online) infrastructure. Temporary power, water or telecoms outages can cause	Possible	Minor	Moderate	• Implement CEMF/OCCS, including:	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	disruption to daily routine and activities. This may occur during tunnelling or trenching activities within the construction footprint. Businesses would be particularly vulnerable to outages as it could cause a loss in revenue and customers. People working from home, or those that are dependent on online services would also be disadvantaged if connections were interrupted. It is assumed that planned or unplanned interruptions are anticipated to be very short (e.g. hours rather than days).				– Plan outages outside of peak periods for the relevant areas (e.g. daytime hours for residential areas and night time for businesses)			
	The existing bus interchange and layover at Station Street would be decommissioned and temporarily relocated until the new layover is constructed. While access would be altered, the infrastructure would still be useable. Ease of access would temporarily be reduced due to street crossing requirements and additional distance. This would be particularly problematic for people with mobility impairments or disabilities if they are required to walk further or access is more difficult.	Possible	Minor	Moderate	• Relocation works would be completed prior to the decommissioning of the existing interchange to ensure disruption to bus services is minimised.	Possible	Minimal	Low
	Alterations in pedestrian routes can reduce the ease of access and create movement issues for less mobile or disadvantage persons. Changes in pedestrian routes, as detailed in Technical paper 1 (Transport) of the Environmental Impact Statement that could affect access to services, facilities and infrastructure would be experienced at: • Station Street, which would be temporarily closed during construction. Pedestrian access to St Marys Station would be maintained through diversions via Queen Street • temporary and short-term local pedestrian and cyclist diversions may be required for shared/pedestrian infrastructure along Gipps Street/Kent Road during the construction of the Claremont Meadows construction power route • the shared pathways to the south of Erskine Park Road where temporary local pedestrian and cyclist diversions may be required.	Possible	Minor	Moderate	• Implement CEMF/OCCS, including informing the community of changes to access arrangements, including in community languages • Implement CTMF	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	These changes may impact the perceived convenience and amenity of the transport interchange and centre. St Marys Town Centre is a major retail centre servicing much of the study area and many visitors accessing community facilities and services (who may also be experiencing disadvantage or disability) would be sensitive to changed access arrangements.							
Built environment	Temporary or permanent removal of parking reduces access to, and may alter usage patterns of, businesses, essential services (e.g. Centrelink – Services Australia) and public transport. This would be particularly problematic for people with mobility impairments, disabilities or those that are elderly who may be less familiar or unable to access alternate online platforms or locations if parking is made too difficult. Impacts are detailed in Transport paper 1 (Transport) of the Environmental Impact Statement and would be associated with: • permanent relocation of the point-to-point taxi vehicle facility on the southern side of Station Street at Station Plaza to Nariel Street • permanent removal of on-street car parking on Station Street (around 41 car park spaces), • permanent removal of approximately 134 off-street commuter car parks at the surface car park on Harris Street • temporary removal of approximately 84 on-street car park spaces on roads south of the existing St Marys Station to accommodate construction activities and temporarily relocated transport infrastructure • temporary removal of approximately 139 off-street car park spaces to the west of Station Plaza • temporary removal of approximately 30 off-street commuter car park spaces at the Belar car park to accommodate temporarily relocated transport infrastructure. The permanent impacts identified above would continue to be experienced into the operational phase.	Likely	Minor	High	• Implement the CTMF • Work with agencies to convert timed parking spaces to untimed parking in dedicated council bays or enabling on-street overflow parking • Quickly reinstate parking upon construction completion.	Likely	Minimal	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	As discussed in Section 4.2.2 and Chapter 8 (Project description – construction) of the Environmental Impact Statement, a separate project is being investigated to expand the existing commuter car parking structure on Harris Street. This project is not considered in this assessment, but if completed, would result in no net loss of commuter parking, thereby reducing the severity of this impact.							
Community	Property acquisitions required as a result of the project would make some existing community facilities and services unusable (if they close) or potentially less accessible (if they relocate). Impacts would be associated with the acquisition of land and demolition of Station Plaza, requiring the closure or relocation of tenants. Community facilities or services affected would be the: • Bluebird Early Education – the education centre has not yet commenced operation so there would not be a reduction in the number of childcare spaces however, waiting lists have been established • Medical Centre – people would no longer be able to access the medical centre and would be required to seek alternate options. St Marys is well serviced by medical centres in walking distance.	Almost certain	Minimal	High	• Implement property acquisition process, as described in Section 8.2.	Almost Certain	Minimal	High
	Community facilities and services may be affected by changes in amenity such as construction noise and vibration, changing the way a person uses a facility. The sensitivity of facilities and services to amenity impacts varies, with places of worship, childcare centres, aged care facilities, offices and education facilities generally more sensitive. Changes in the amenity of an environment can also deter people from using parks and outdoor facilities. The utilisation of community facilities or services that may be temporarily altered due to noise and vibration impacts as detailed in the Technical paper 2 (Noise and vibration) of the Environmental Impact Statement during construction include: • St Marys Community Health Centre, St Marys Flexible Learning Centre	Likely	Minor	High	• Implement OCCS, including consulting with schools in proximity to the construction sites to understand their daily routines and consider more suitable times to schedule noisy activities to minimise potential disruptions to student's learning environments • Implement CEMF	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	• St Marys North Public School, Kurrambee School, Claremont Meadows Public School, Banks Public School • commercial uses along Queen Street adjacent to the construction footprint • Myrtle Road Fields and Bringelly Sports Fields • Several child care centres across the study area. Different levels of impact are expected during specific phases of construction, with finishing works being a primary source of exceedances for the facilities above. Potential construction impacts may be disproportionately felt by some users, particularly if people are experiencing disability or disadvantage, and therefore would be more sensitive to noise and vibration.				• Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)			
	Access to social infrastructure and services may be impacted, due to changes to the transport network, road alterations or increased construction traffic. As identified in Chapter 4, there are a number of community facilities and services with the study area. These include regional services, such as Western Sydney University's Penrith Campus and the Western Sydney Institute of TAFE, located approximately 2.2 km and 1.7 km west of the Claremont Meadows services facility, respectively. Temporary road alterations could reduce ease of access to public schools, education facilities and State facilities, including: • St Marys Flexible Learning Centre due to minor temporary localised modifications on Harris Street • access to Old MacDonald's Child Care due to temporary road closure/lane reduction and local diversions on Mandalong Close, west of Erskine Park and accessed via Mamre Road, due to the short-term construction works for the bulk power supply establishment • potential from temporary access issues resulting from the short-term construction power supply establishment along Cross Street affecting access to Christadelphian Heritage College in Kemps Creek	Likely	Minimal	Moderate	• Implement the CTMF • Where possible, undertake road works out of hours.	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	• Claremont Meadow Public School, Lifetime Learners Long Day Care and Preschool, Sunflower Childcare Centre, Cedars Park, Penrith SES Facility due to short term construction works for the construction power supply establishment • Kemps Creek Public School due to temporary access issues resulting from the short-term construction works for the construction power supply establishment along Cross Street.							

5.1.5 Culture

The potential for the project to impact on culture includes a consideration of how construction works could impact on:

- shared beliefs, customs, values and stories
- connection to the land, places and buildings including Aboriginal culture and connection to country.

This section focuses on cultural impacts related to heritage. Technical paper 4 (Non-Aboriginal heritage) and Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement have identified locations in the study area where the community values particular places or items and the importance of historical connections to communities.

Table 5-4 outlines how construction impacts to items of heritage significance or potential significance would impact on culture. The technical papers referenced above should be consulted for detailed analysis regarding the nature of and background to the impact.

Additional impacts to culture, outside of heritage, are discussed further in the Way of Life (see Section 5.1.1) and Community (see Section 5.1.3).

Table 5-4: Potential construction impacts to culture

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Heritage	As detailed in Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement, construction activity could directly or indirectly impact upon items of Aboriginal heritage significance near or within the construction footprint. This relates to areas of known and unknown items, alterations to landscape and impacts to waterways. This would affect the community's record of the past and cultural connection to the area with the potential to reduce the community's connections to the past and reduce learnings from the past for future generations. Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement identified that cultural values are present within the study area in: • physical markers attesting to the long-term presence of Aboriginal people in this region and footprints of the ancestors • the waterways which connect the larger features of the landscape and the sites across it, interpreted as pathways of the past extruding into the present. The project would impact known sites and may impact as yet unidentified sites, damaging the cultural values at these locations. The presence of existing Aboriginal Heritage Information Management System (AHIMS) sites within and near to the construction footprint likely means the presence of other unregistered sites in the area, which increases the risk of unintended disruption. As discussed in Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement the highest risk areas for direct impacts are located around the above ground works south of the M4 Western Motorway. A further risk of indirect impacts is associated with subsidence and vibration from tunnelling.	Likely	Moderate	High	• Implement CEMF • Implement recommendations of Technical paper 9 (Landscape and visual) • Implement recommendations of Technical paper 5 (Aboriginal Heritage) (including unexpected finds protocol)	Possible	Minor	Moderate
	Construction activity could potentially disturb relics of non-Aboriginal heritage significance nearby or within the construction footprint, thereby	Possible	Moderate	High	• Implement CEMF	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	potentially impacting on cultural value or capacity for that value to be appreciated by the broader community. Technical paper 4 (Non-Aboriginal heritage) of the Environmental Impact Statement identifies that potential risks and impacts to culture including: • St Marys Town Centre including St Marys Railway Station Group, which is a collection of heritage items and have State heritage significance and most likely contribute to the local community's sense of place, providing a connection to the local community's past • St Marys Munitions Workers Housing on Carinya Avenue which are distinctive housing adding to the culture and character of St Marys • The Luddenham Road Alignment which is listed on the Penrith LEP 2010 as an item of local heritage significance (I843) which provides evidence of the early nineteenth century agricultural development in the Penrith region • The McMaster Farm which is a potential heritage item with community ties located to the north of Elizabeth Drive in the suburb of Luddenham, within the off-airport corridor construction site • The Warragamba to Prospect Water Supply Pipelines are significant to the fabric of the local environment • The former Overseas Telecommunication Site is listed on the Liverpool LEP 2008 as an item of local heritage significance located to the east of Badgerys Creek Road near the Aerotropolis Core construction site. • The Kelvin Homestead is located on The Retreat, Bringelly and has State and local heritage significance being one of the earliest land grants. The change in the rural setting would result in a minor permanent indirect impact to the heritage significance of the Kelvin Park Group heritage item. • The Bringelly RAAF Base is located in the Aerotropolis Core construction site and was one of two high-frequency radio telecommunication sites in Sydney used by the Royal Australian Air Force and other defence services.				• Implement recommendations of Technical paper 4 (Non-Aboriginal heritage) • Implement recommendations in Technical paper 9 (Landscape and visual) • Incorporate creative expression opportunities (see Section 8.2) related to heritage			

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Community	Some farms exist within the study area that operate as family businesses, having existed over multiple generations, as discussed in Chapter 4. Displacement of these families would have a significant cultural impact as they risk disrupting or losing altogether their familial cultural connection with the land and their surroundings.	Possible	Minor	Moderate	• Minimise unnecessary acquisitions of this nature. • Implement recommendations of CEMF to minimise disruptions to surrounding properties.	Unlikely	Minor	Low

5.1.6 Health and wellbeing

Construction of the project may impact on the health and wellbeing of sensitive receivers surrounding the construction footprint. This may include physical and mental health impacts that can be associated with alterations in amenity (e.g. noise or air quality impacts), to the transport environment (e.g. access to care), or personal and property rights.

The sensitivity of an individual resident to construction impacts would vary depending on their physical or psychological attributes, their living situation, or how they use their place of residence or neighbouring areas. For instance, some individuals are light sleepers and may have difficulty sleeping if noise impacts occur during the evening. Alternatively, a person may work or study at home, which would expose them to a longer duration of construction impacts compared to a person that is employed elsewhere.

As discussed in Section 4.2.2, St Marys has a significantly disadvantaged population (as defined by SEIFA), with a high number of people also in need of assistance. This may represent a particular sensitivity related to health and wellbeing impacts.

Table 5-5 assesses the health and wellbeing impacts associated with construction of the project.

Table 5-5: Potential construction impacts to health and wellbeing

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Community	Excessive and continued noise levels, particularly when occurring outside of standard construction hours, can lead to sleep disturbance and associated stress. This could impede on a person's productivity. Technical paper 2 (Noise and vibration) of the Environmental Impact Statement identified that noise impacts associated with construction activities outside of standard working hours may result in some sleep disturbances for residents near the construction footprint. Impacts would typically be felt during tunnelling and finishing works. This may result in health impacts associated with interrupted sleep in affected areas, which generally include St Marys, Claremont Meadows and Orchard Hills.	Likely	Moderate	High	• Implement CEMF • Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)	Unlikely	Minor	Low
	Noise impacts can affect the way people utilise space, their ability to communicate and the way individuals undertake daily activities. Noise exceedances for extended duration can cause heightened annoyance and stress. This would be particularly felt by people that work from home, shift workers, the elderly or households with young children that are more dependent on quieter environments to work, rest and relax. As identified in Technical paper 2 (Noise and vibration) of the Environmental Impact Statement, significant noise and vibration construction anticipated to result in temporary impacts to human comfort in residences, community facilities and places of work surrounding the construction footprint. Technical paper 2 (Noise and vibration) of the Environmental Impact Statement provides details regarding predicted noise levels. Many residential sensitive receivers have been predicted to experience temporary exceedances across the study area, varying in level of severity. The highest impacts have been identified in St Marys, Claremont Meadows and Orchard Hills, and are generally associated with enabling works, tunnelling works and earthworks/excavation. Non-residential receivers (e.g. schools, shops and child care facilities) are generally anticipated to experience smaller temporary impacts and	Likely	Moderate	High	• Implement CEMF • Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	generally limited to earthworks/excavation and finishing works. Impacted schools include St Marys North Public School, Kurrambee School, Claremont Meadows Public School and Banks Public School.							
	People may observe vibration levels well before those likely to cause damage to building contents or affect the structural integrity of buildings. These vibrations would affect human comfort with people potentially inconvenienced or possibly disturbed by the vibrations. This may elevate a person's stress levels. As identified in Technical paper 2 (Noise and vibration), vibration impacts have the potential to result in human discomfort. Potential temporary impacts may be from: • Ground-borne vibration, potentially impacting residential receivers located between St Marys Station and Orchard Hills Station and between the proposed Airport Terminal Station and Aerotropolis Core Station. • Surface vibration potentially impacting receivers up to 100 m from construction works, which may temporarily experience vibrations during construction activities with larger vibratory rollers.	Possible	Minor	Moderate	• Implement CEMF • Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)	Unlikely	Minor	Low
	An increase in particulate emissions as a result of the project may adversely affect human receptors and the function and operating costs of businesses, as businesses could respond to emissions by increasing cleaning, keeping doors closed and relying more on mechanical ventilation. As identified in Chapter 22 (Air quality) of the Environmental Impact Statement, air quality impacts associated with demolition, earthworks, construction works and traffic movements are anticipated from increased exposure to particulate emissions. This has the potential to impact nearby residents, workers and visitors surrounding construction sites, including: • high risks of impacts to human health are anticipated in St Marys, Orchard Hills and the off-airport construction footprint in Luddenham	Likely	Moderate	High	• Implement CEMF, including AQMP • Implement recommendations of Chapter 22 (Air quality) of the Environmental Impact Statement	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	• medium risks of impacts to human health are anticipated in Claremont Meadows and Bringelly. It is important to note the context of these risks, which assumes that there are no mitigations.							
	Construction activities such as demolition, earthworks and trenching have the capacity to increase airborne emissions such as dust. This has the potential to affect human health, reduce the amenity of an area and generate nuisance dust impacts due to the increase in dust deposition (dust soiling) potentially deterring people from using spaces, visiting businesses or enjoying residential amenity. Nuisance dust generated from construction activities commonly affects dwellings through soiling. This may reduce the cleanliness of an environment and would require residents to spend more time cleaning, which are an annoyance and an additional household expense. Higher levels of dust in residential properties would also potentially heighten the incidence of allergies, asthma and other respiratory issues. Increased dust on and around social infrastructure, particularly active recreation spaces, would also reduce the capacity of the community to enjoy the environment and/or may increase health risks for participants. This would be a particular concern for community members and visitors with respiratory and health issues such as asthma and allergies. As identified in Chapter 22 (Air quality) of the Environmental Impact Statement, air quality impacts associated with: • dust soiling associated with demolition and construction works and traffic has the potential to result in annoyance for residences and places of work in proximity to construction sites • high risks of impacts relating to dust soiling are anticipated in St Marys, Orchard Hills and the rail corridor in Luddenham • high risks of impacts relating to dust soiling are anticipated in Claremont Meadows and Bringelly	Likely	Moderate	High	• Implement CEMF, including AQMP • Implement recommendations of Chapter 22 (Air quality) of the Environmental Impact Statement	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	Some residents and communities near the project may experience a level of stress due to uncertainty about potential property acquisitions, potentially impacting the health and wellbeing of some individuals. Responses to the community survey indicated that concern regarding property acquisitions associated with the project already exists, suggesting that this impact may already be taking place in the community. Acquisition of residential and business properties may cause some individuals to experience impacts on health and wellbeing associated with disruptions to social networks and personal relationships associated with their relocation of neighbours. These impacts are likely to have the greatest effect on groups such as elderly, people with a disability, longer term residents and people on lower incomes, who are often more reliant on personal and community networks. Potential impacts are outlined below: • Private property acquisitions in St Marys may result in mental health impacts associated with stress for business owners, employees, customers and suppliers associated with relocations or closures of businesses. Stresses may result from a loss of livelihood (see Section 5.1.7) or change of routine (see Section 5.1) • Private property acquisitions in the more rural and semi-rural areas of Orchard Hills, Luddenham and Bringelly may result in mental health impacts associated with stress for households associated with uncertainty around the acquisition process and neighbourhood relocation • Property acquisitions are anticipated to result in mental health impacts for affected residents associated with the stresses of the property acquisition process and accommodating a partial loss of land, such as arranging for alternate access or use.	Likely	Major	Extreme	• Implement CEMF • Implement OCCS • Implement recommendations of Chapter 19 (Land use and property) of the Environmental Impact Statement	Possible	Moderate	High
	Construction activities would result in changes to the physical and cultural landscape, potentially resulting in stress resulting from change in character. Potential causes may include:	Possible	Moderate	High	• Implement CEMF • Implement recommendations of	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	• alterations or damage to non-Aboriginal heritage items at the existing St Marys Station • destruction of known and unknown Aboriginal heritage items, with potential for archaeological and cultural impacts • change in the visual landscape across sensitive views in the rural and semi-rural areas of Orchard Hills, Luddenham and Bringelly, and the residential character of Claremont Meadows.				Technical paper 4 (Non-Aboriginal heritage) • Implement recommendations of Technical paper 5 (Aboriginal Heritage) (including unexpected finds protocol) • Implement recommendations in Technical paper 9 (Landscape and visual) • Incorporate creative expression opportunities (see Section 8.2) related to heritage			
	Construction workers may be exposed to contaminants on site due to excavation of contaminated soils or exposure to uncontrolled hazardous substances, such as a spill. As identified in Technical paper 8 (Contamination), this may occur during trenching activities, removal of spoil or during surface works.	Unlikely	Major	High	• Implement CEMF • Implement recommendations of Technical paper 8 (Contamination)	Rare	Moderate	Moderate
	Combined effects of multiple stressors over the period of construction may result in 'construction fatigue' for residents and businesses surrounding the construction footprint, resulting in increased stress over time. This is due to the extended and varied construction works planned for over five years, and the potential for overlapping cumulative impacts, discussed in Chapter 7.	Possible	Moderate	High	• Implement CEMF • Implement OCCS • Implement recommendations of Technical paper 1 (Transport) • Implement recommendations of	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
					Technical paper 2 (Noise and vibration) • Implement recommendations of Chapter 22 (Air quality) of the Environmental Impact Statement			

5.1.7 Surroundings

Impacts to the surroundings include access to and use of ecosystem services, public safety and security, access to and use of the natural and built environment, and its aesthetic value and/or amenity. Impacts to landscape and setting have been included in this impact area. The assessment identified the following key impacts:

- Temporary changes in appearance and use of local surroundings due to reduced local amenity and character caused by increased noise from construction activities, including truck movements, tunnelling, demolition. These impacts would be greatest in areas densely populated, such as St Marys and Claremont Meadows. The establishment of site hoardings, noise barriers, acoustic sheds (if required) and fencing around the site boundary would help to manage such impacts although, the visual impact of these may also deter people from spending time in the surrounds.
- Possible impact to public safety or perceived public safety risks associated with establishment of construction sites and road movements, particularly in St Marys which has the highest volume of pedestrian and vehicular movements in a densely populated area.
- Changes to the visual environment due to the presence of work sites and related construction machinery, would generally be experienced where sensitive receivers have an unscreened view of the construction site limiting their enjoyment of views otherwise available to them.

Table 5-6 assesses the impacts to surroundings associated with construction of the project.

Table 5-6: Potential construction impacts to surroundings

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	Visual amenity is an important part of an area's character and offers a wide variety of benefits to the community in terms of quality of life, wellbeing and economic activity. During construction, visual amenity throughout the study area has the potential to be affected by factors such as the removal of established vegetation, the installation of construction hoardings, installation of acoustic sheds, construction equipment and/or the visual appearance of construction sites. Technical paper 9 (Landscape and visual) of the Environmental Impact Statement identifies that: • the visual environment of the areas immediately surrounding St Marys Station, including laydown and streetscape areas would temporarily change due to the establishment of construction sites • the existing St Marys Station would temporarily change due to changes to station platforms and nearby public open space • the local rural amenity and sightlines would be disturbed around Orchard Hills and Luddenham due to the introduction of the stabling and maintenance facility and the surface rail alignment. The proposed changes to the landscape value and character of the area have the potential to alter the way the community value and use the natural and built environment. The project corridor extending from the M4 Western Motorway to Western Sydney International would create a divide through the centre of the landscape character area during construction. This would result a substantially modified landscape with the removal of trees, vegetation and waterbodies, demolition works and changes to the landform affecting the way people interact with and use their surroundings.	Likely	Moderate	High	• Implement recommendations of Technical paper 9 (Landscape and visual) • Incorporate creative expression opportunities (see Section 8.2) related to visual amenity	Possible	Moderate	High
	Construction works for the Claremont Meadows services facility would result in a temporary change to the visual and acoustic amenity of the residential area to the west and south-east of the construction footprint, associated with construction works and hoardings. This would include losses to views to patches of bushland, but is not anticipated to impact regional landscape features, such as South Creek. This may change the way	Possible	Minor	Moderate	• Implement CEMF • Implement CNVS • Implement recommendations of	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	residents' access and use the private residents, backyards or surrounding public spaces.				Technical paper 2 (Noise and vibration) • Implement recommendations of Technical paper 9 (Landscape and visual) • Incorporate creative expression opportunities (see Section 8.2) related to visual amenity			
	Changes in amenity due to construction impacts can alter how people utilise and interact with their surroundings and streetscapes. Short term changes to surroundings and streetscapes are anticipated due to trenching activities required to establish construction and bulk power routes. Potential amenity impacts for nearby residents and businesses would be experienced at: • Claremont Meadows • Kemps Creek • Erskine Park.	Likely	Minor	High	• Implement CEMF • Implement CNVS	Possible	Minor	Moderate
	Changes to local amenity due to noise and vibration may affect the ability of a resident, a visitor or the community to enjoy or undertake activities (eg hanging washing outdoors, opening windows, enjoying walks, using public space) within their residential property or local area. Technical paper 2 (Noise and vibration) identifies locations where changes in noise and vibration may impact the way people utilise indoor and outdoor spaces, specifically at: • St Marys (residents, businesses, St Marys Library) • along the construction and bulk power routes in Erskine Park and Kemps Creek caused by short term trenching construction vehicle	Likely	Moderate	High	• Implement CEMF • Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)	Possible	Minor	Moderate

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	movements along the surface and viaduct portions of the rail corridor between Blaxland Creek and Elizabeth Drive where significant visual and noise impacts are anticipated.							
Built environment	The demolition of buildings and relocation of facilities can alter the way people utilise and interact with places. To facilitate the project, buildings would need to be demolished including: • demolition of Station Plaza in St Marys, resulting in significant changes to the built environment of St Marys • demolition of semi-rural and rural dwellings and outbuildings within the project footprint in Orchard Hills, Luddenham and Bringelly resulting in changes to the rural built environment of the suburbs.	Likely	Moderate	High	• Nil	Likely	Moderate	High
Heritage	Heritage plays a major role in the appeal and life of neighbourhoods, with heritage items safeguarding and enriching our past and present. The conservation and preservation of heritage items can be a value that a community holds highly. The project would result in the permanent alteration or destruction of heritage items in semi-rural and rural areas that are locally significant and represent the historical character of affected areas. A detailed list of heritage impacts is discussed in Technical paper 4 (Non-Aboriginal heritage) of the Environmental Impact Statement. Loss of heritage items would result in significant changes to the surrounds and the associated character of the areas. Heritage items which may experience a moderate or high impact are outlined below. • The McGarvie-Smith Farm, a locally listed item west of Badgerys Creek and north of Elizabeth Drive is a relatively intact and significant heritage item, comprising multiple buildings, representing an agricultural research facility established circa 1930. The project would result in demolition of two buildings of moderate value, heavily modify dams associated with the property, and bisect the heritage item. • The Bringelly RAAF Base, an unlisted item north of Thompsons Creek and east of Badgerys Creek Road, is a relatively intact and locally	Almost Certain	Moderate	Extreme	• Implement recommendations from Technical paper 4 (Non-Aboriginal Heritage) • Incorporate creative expression opportunities (see Section 8.2) related to heritage	Likely	Moderate	High

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	significant heritage item associated with the RAAF communications network and the development of communications technology. It is uncommon in the Sydney region, and would largely be demolished to allow construction of the Aerotropolis Core Station.							
	Potential impacts to heritage items around the existing St Marys Station are discussed in detail in Technical paper 4 (Non-Aboriginal heritage). St Marys Railway Station Group, listed on the State Heritage Register, includes multiple heritage items. The most significant heritage elements include the Goods Shed, Platform 3/4 Building, Signal Box and Jib Crane. Physical and visual access to heritage items would be temporarily restricted or interrupted during construction works. This may cause people to feel disconnected from the heritage item and reduce their sense of place and identity.	Likely	Minor	High	• Incorporate creative expression opportunities (see Section 8.2) related to heritage	Likely	Minor	High
Community	As discussed in Section 4.2.2, crime is currently an issue in St Marys along the length of Queen Street and the surrounding areas. Construction may cause further temporary perceived and potential safety impacts associated with changes in sightlines around construction areas due to establishment of hoardings, changes to wayfinding and reduced passive surveillance. This may discourage people from travelling to an area, may increase anti-social behaviour, due to the reduction in passive surveillance, lack of lighting and blind spots.	Unlikely	Major	High	• Implement OCCS • Implement CEMF • Implement Crime prevention through environmental design principles when designing the configuration of construction sites	Rare	Major	High
	An increase in construction traffic and heavy vehicles within the study area, changed traffic conditions and the introduction of construction sites, may affect community safety around roads and active transport connections. In particular, construction activities would result in significant changes in road movements in St Marys, with additional heavy vehicle traffic and temporary road closures/redirection. This has the potential to conflict with light vehicle and pedestrian traffic and result in road user safety risks.	Possible	Major	Extreme	• Implement OCCS • Implement CEMF • Implement CTMF • Implement recommendations of Technical paper 1 (Transport)	Rare	Major	High

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Economic	Poor amenity conditions can reduce business passing trade, customer experience and return customers, affecting business residents and the livelihood of owners and employees. Impacts may include: • temporary changes to local amenity surrounding the existing St Marys Station would impact local retail businesses and services that rely on pleasant conditions to attract and retain customers • temporary changes to local amenity in the semi-rural and rural areas of Orchard Hills, Luddenham and Bringelly may impact local recreation and accommodation based businesses that rely on retention of rural character and existing conditions to attract and retain customers.	Likely	Moderate	High	• Implement OCCS • Implement CNVS • Implement CEMF and future CEMPs	Possible	Minor	Moderate
	The majority of businesses clusters that offer retail and convenience services would experience an increase in construction workers in the area, which may generate increased passing trade during the construction period, which extends over five years. This includes clusters within the study area, such as the centre St Marys and smaller clusters at Erskine Park and Claremont Meadows. Impacts to clusters outside of the study area, such as along Mamre Road, Elizabeth Drive and The Northern Road may also benefit. As identified in Chapter 8 (Project description – construction) of the Environmental Impact Statement, the total peak workforce would be around 3,000 personnel across the study area. This would be particularly beneficial for local businesses, potentially improving the livelihood of business owners and employees due to increased turnover.	Likely	Moderate Positive	High Positive	• Nil	Likely	Moderate Positive	High Positive

5.1.8 Personal and property rights

The consideration of potential impacts to personal and property rights encompasses how individuals' economic livelihoods are affected by the Project and whether they experience personal disadvantage or have their civil liberties affected[5].

The major impacts to personal and property rights arise from the necessary acquisition of land. Property acquisition requirements for the project are described in detail in Chapter 19 (Land use and property) of the Environmental Impact Statement. All property acquisition would be managed in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW) and the Land Acquisition Reform 2016 process. This legislation encourages the acquisition of land in a transparent manner through agreement with property owners rather than by compulsory acquisition, wherever possible. Every effort would be made to acquire the affected properties through negotiated purchase. This requires appropriate compensation to be paid including associated legal costs, valuation fees, relocation and removal expenses, and mortgage costs.

Social impacts related to personal and property rights include:

- Maintaining the right and ability to access rail and road services including access from a property to these services
- Fragmentation of land holdings reducing the ability to productively and effectively utilise the land or repurpose it
- Impacts on the structure integrity of built form
- Availability and affordability of rural residential housing due to the reduction in supply.

A high rate of people (56 per cent) in the study area did not change residential address between 2011 and 2016. In general terms, residents who have lived at the same address for an extended period would likely have stronger ties and attachment to the local area. Consequently, the relocation of residents would impact established social ties in the study area (see Section 5.1.3). The severity of these impacts would vary depending on individual circumstances, but vulnerable households may experience such impacts at a higher level of intensity.

[5] NSW Planning and Environment (2017) *Social Impact Assessment Guideline for state significant mining, petroleum production and extractive industry development*.

Table 5-7: Potential construction impacts to personal and property rights

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Access	Access to public infrastructure, including road and rail, is a personal and property right that should be maintained. The project would require partial acquisition of lots used for infrastructure, as described in Chapter 19 (Land use and property) of the Environmental Impact Statement. This would not affect the capacity of the existing road or rail network. The existing rail services would remain operational throughout construction of the project and where works are required within the rail corridor, a temporary alternative service would be provided. The personal right to access public transport services would be maintained.	Unlikely	Minimal	Low	• Implement CEMF • Implement CTMF • Implement property acquisition process, as described in Section 8.2.	Rare	Minimal	Low
	Access from a property to public road infrastructure is a civic property right that should be maintained. The construction of the project alignment could potentially impact some land holdings in Orchard Hills and Luddenham, potentially constraining access to portions of affected properties during the construction period. The size of the remaining parcels may also prevent their continued use or restrict redevelopment capacity, either temporarily (i.e. throughout construction) or permanently (i.e. if land cannot be returned). It is understood that the project would not result in permanent severing of road connections, but could result in land fragmentation, as described above.	Likely	Moderate	Extreme	• Implement CEMF • Implement CTMF • Implement property acquisition process, as described in Section 8.2.	Possible	Moderate	High
	Increased construction traffic, road closures, delays and detours reduce the efficiency of the traffic network, with impacts discussed in detail in Technical paper 1 (Transport) of the Environmental Impact Statement. Transport impacts associated with the project would have potential implications on an individual, business or household's daily routine (see Section 5.1), worker productivity, income or revenue, and health and wellbeing (see Section 5.1.6).	Likely	Minor	High	• Implement CEMF • Implement CTMF	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	This can adversely impact on economic livelihood from scenarios such as increased travel costs and reduced revenue generation (loss in productivity). This would be most significant in areas that do not have multiple or nearby access points to the regional road network, such as Orchard Hills and Luddenham, or with a high concentration of workers, such as St Marys. Business impacts are explored further in Section 5.1.7.							
Built environment	The construction of a tunnel has the potential to cause vibration impacts and affect structure integrity of built form. This can have implications on a person's economic livelihood, dependent on the extent of structural damage. Technical paper 2 (Noise and vibration) does not anticipate that the physical condition and structural integrity of built assets would be affected by construction of the project. The exception to this is assets at St Marys Station that fall within the minimal safe work area and could be subject to damage, pending further investigation.	Unlikely	Moderate	Moderate	• Implement CNVS • Implement recommendations of Technical paper 2 (Noise and vibration)	Unlikely	Minimal	Low
Community	The construction phase is not anticipated to adversely affect known planned land uses, including housing delivery in the study area. Availability and access to appropriate housing would generally be maintained during project construction.	Rare	Minimal	Low	• Nil	Rare	Minimal	Low
	Households required to move due to property acquisition may have difficulty finding a similar house in the local area, which can heighten stress (see Section 5.1.6) and force people to move away from established community networks (see Section 5.1.3). The required acquisition of rural residential properties in Orchard Hills and Luddenham (see Chapter 19 (Land use and property) of the Environmental Impact Statement) would lead to a reduction in the availability of rural residential housing types within easy reach of the city. Due to the extensive development occurring in Western Sydney, the availability of this housing type is becoming more limited with implications on supply and affordability.	Likely	Moderate	High	• Implement OCCS • Implement property acquisition process, as described in Section 8.2.	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Economic	Broader amenity impacts during construction may also result in delays to development, as developers seek to avoid the negative associations of construction works. Property acquired to facilitate the construction of the project and then not used for operation may delay proposed redevelopment, with developers foregoing uplifted of potential improved built form assets. The potential economic impact associated with these issues would be highest in St Marys, which has been identified in the Penrith LSPS as a priority for growth The LSPS identifies that St Marys contains opportunity sites for high density mixed and residential use development.	Possible	Moderate	High	• Implement CEMF • Implement CNVS • Implement OCCS • Implement recommendations of Technical paper 2 (Noise and vibration) • Implement recommendations of Technical paper 9 (Landscape and visual) • Implement recommendations of Chapter 22 (Air quality) of the Environmental Impact Statement • Implement property acquisition process, as described in Section 8.2.	Possible	Minor	Moderate
	Property acquisition can affect the economic livelihood of persons, businesses or households. • Partial property acquisitions at Orchard Hills and Luddenham may fragment rural residential properties, reducing accessibility and operational capacity • Property acquisitions and construction impacts over an extended period of time in the St Marys Town Centre would reduce the operational capacity of the centre, as businesses close or relocate. If a business cannot relocate, this can cause a loss of jobs, reduced revenue and financial hardship for businesses and employees. Personal and property rights can be carried across multiple generations, including the right to earn a living in the same way. Where those rights	Almost certain	Major	Extreme	• Implement OCCS • Implement property acquisition process, as described in Section 8.2.	Likely	Moderate	High

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	are impinged upon over the course of time (e.g. the right of farming families to tend to the land in the way their parents did, or a business operation to pass to the next generation), then this can be seen as intergenerational impact.							
	Alterations to the existing environment from construction impacts including changes in amenity, access and traffic can have indirect impacts on the economic livelihood of individuals and households. Potential impacts associated with amenity and congestion are discussed below. • Technical paper 2 (Noise and vibration) of the Environmental Impact Statement identifies potential temporary impacts to amenity for nearby residents, particularly around the built up area around the existing St Marys station. This could potentially reduce the appeal of impacted land surrounding the project area, which could potentially make it more difficult for households to sell property and move elsewhere while amenity impacts are active. • Temporary increased traffic congestion and amenity impacts associated with construction activities in the St Marys Town Centre (refer to Chapter 8 (Project description – construction) of the Environmental Impact Statement may reduce the desirability of the impacted area. This may potentially result in increased vacancy rates with the centre if businesses choose to relocate.	Possible	Moderate	High	• Implement CEMF • Implement CNVS • Implement CTMP • Implement recommendations of Technical paper 2 (Noise and vibration)	Unlikely	Moderate	Low

5.1.9 Decision-making systems

Impacts to decision-making systems requires consideration of the extent to which residents and the community can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms.

The project has undergone community engagement through the development and release of strategic planning and transport policies, and through the development of the project. The decision-making systems of the government aim to provide the mechanisms for people to have their say, and provide for complaint, remedy and grievance mechanisms. As such, decision-making systems have only been addressed broadly in this report within other social factors.

It is also noted that the preparation, exhibition and ability for the public to comment is an essential input to decision making systems that are available to the community. While this is not a mitigation measure in itself, the process of proponents responding to comments, and for determining authorities to interpret community concerns in their assessment, is relevant context for understanding the impacts discussed.

Table 5-8: Potential construction impacts to decision-making systems

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Decision-making	Potential for concern that local communities are powerless or excluded from decision-making processes amongst community and business owners associated with a fear that the Project would proceed regardless of individual's viewpoints. These concerns are often associated with large scale infrastructure projects offering regional benefits. It is also acknowledged that the project has been recognised in many recent strategies for Western Sydney. While this would reduce the potential for people to be taken off guard by the project, it may also convince people that the Project is a foregone conclusion, regardless of impact.	Possible	Moderate	High	• Implement CEMF • Implement OCCS	Possible	Minor	Moderate
	Residents, workers and visitors who experience negative impacts associated with the project, such as amenity or access issues, may feel that they are unable to request that impacts be reduced to their satisfaction.	Possible	Moderate	High	• Implement CEMF • Implement OCCS	Possible	Minor	Moderate
	Owners, occupiers and users of acquired properties may feel that they are unfairly not being provided a choice regarding the means or timing of their relocation.	Possible	Moderate	High	• Implement CEMF • Implement OCCS	Possible	Minor	Moderate

5.1.10 Fears and aspirations

The project has potential to have negative impacts associated with fear of disruption to local community character, and perceptions about potential long-term changes to the fabric of the community, particularly in combination with other construction activity. Community stakeholders may feel uncertain about urban renewal and the planned development along the proposal metro corridor of which, the project is an enabling part.

In general, the potential for construction work to impact on fears and aspirations would be different for individuals within the study area. Construction of the project may result in:

- Uncertainty and apprehension about nature of works and potential impacts to community character
- Perceptions and concerns about potential for long term changes to community character.

As such, fears and aspirations relate to potential community perceptions of the project, as opposed to the impacts that have been predicted in previous sections, the Environmental Impact Statement associated technical papers.

Table 5-9: Potential construction impacts to fears and aspirations

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Fears and aspirations	Potential concerns around the impact of construction traffic on access to and use of infrastructure, personal and property rights (livelihood) way of life and health and wellbeing.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2)	Possible	Minimal	Low
	Concerns about the impact of temporary road closures on way of life, community, access to infrastructure, and personal and property rights.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2)	Possible	Minimal	Low
	Concerns regarding the potential impacts of property acquisitions on way of life, community, personal and property rights.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2) • Implement property acquisition process (see Section 8.2)	Possible	Minimal	Low
	Potential concerns about the impact of business closures on community, personal and property rights.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2)	Possible	Minimal	Low
	Concerns and/or hopes regarding potential change in local character, such as: • loss of 'main street' character elements of St Marys • loss of rural setting character of Orchard Hills, Luddenham and Bringelly.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2)	Possible	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	Potential concerns around the impact of construction noise and vibration on way of life, health and wellbeing.	Possible	Minor	Moderate	• Implement CMF • Implement OCCS • Place Management (see Section 8.2)	Possible	Minimal	Low

5.2 Construction impacts (on-airport)

5.2.1 Direct impacts

No sensitive receivers have been identified in proximity to the proposed Airport Business Park Station and Airport Terminal Station.

Timing of interactions with the construction of the Western Sydney International are discussed in detail in Chapter 8 (Project description – construction) of the Environmental Impact Statement. As discussed in that chapter, construction planning for the project has considered the initial designs of the Western Sydney International project, and a commitment for continued consultation between the project and the Western Sydney International project to develop the construction approach for the two projects. Options for integration would be developed as project design and construction planning is refined.

As the project is not expected to interfere with the delivery of the Western Sydney International or communities within the on-airport portion of the project, significant direct on-airport construction impacts are not anticipated.

5.2.2 Indirect impacts

Construction activities on the on-airport portion of the project would have indirect impacts on the surrounding area relating to traffic, noise and air quality. These impacts are discussed in detail in Technical paper 1 (Transport), Technical paper 2 (Noise and vibration) and Chapter 22 (Air quality) of the Environmental Impact Statement, respectively.

As discussed in Section 4.3, construction on the on-airport land is significantly advanced, with the land being largely cleared and levelled by the time the project commences. As such, sensitive receivers on the land relevant to the project, from a SEIA perspective, are not anticipated to exist. Further, it is noted that the entire Western Sydney International site is approximately 1,700 hectares, with project works either being underground, or with a large spatial buffer between the surface works and surrounding areas. Combined, these factors would mitigate indirect SEIA related impacts to surrounding areas significantly.

Indirect impacts should also be considered within the context of apportionment of impacts between on-airport and off-airport impact sources. As explained in the technical reports listed above, impacts to businesses in the surrounding area relating to traffic and noise impacts are expected to be significant, if not otherwise mitigated, but apportionment of those indirect impacts from the on-airport portion of the Project have not been identified as significant.

The on-airport portion of the project may also result in a benefit to nearby business clusters on regional roads leading to the area, particularly those along The Northern Road and Elizabeth Drive, resulting from increased passing trade associated with construction workers.

6.0 ASSESSMENT OF OPERATION IMPACTS

This chapter provides an assessment of the potential impacts on the socio-economic environment that may occur during operation of the project.

Operation of the project has the potential to affect residents, businesses, road users, social infrastructure users and the wider community, both positively and negatively. The chapter draws upon Environmental Impact Statement chapters and technical papers, identified in Section 3.2 and noted in the impact tables where relevant. The information provided in those assessments to inform the extent of change socio-economic changes from the existing environment, as identified in Chapter 4.

Relevant mitigation measures from Environmental Impact Statement chapters and technical papers designed to avoid, minimise, manage and mitigate impacts have been considered, and residual post-mitigation ratings have been assigned. Mitigation measures have not been repeated in full in this chapter, but the relevant location of mitigation measures have been cited. Additional detail regarding mitigation measures in the context of mitigating socio-economic impacts is provided in Chapter 8 of this SEIA, with additional detail in Chapter 27 (Synthesis) of the Environmental Impact Statement.

While the social risk rating of the predicted operation impacts can be high, particularly in the suburbs of Orchard Hills, Luddenham and Bringelly, social risk ratings have not considered changes associated with the:

- draft WSAP
- the vision of the District Plan
- cumulative effects associated with the completion of other approved projects (discussed in Chapter 7)
- other strategic matters discussed in Chapter 2 (Strategic context) of the Environmental Impact Statement.

These elements have not been considered in order to maintain a distinction between project-specific effects and external effects. If these impacts were considered, but not achieved (e.g. through a change in policy or similar), the SEIA would no longer be valid. For instance, it is anticipated that the project would, as discussed in Chapter 7 (Project description – operation) of the Environmental Impact Statement:

- support the development of the Aerotropolis precinct
- support the development of the Northern Gateway precinct
- create job opportunities, both on and off-airport in a range of industries, within the Western Parkland City.

As such, the risk ratings represent a conservative assessment. Findings should be considered in the context of the broader strategic environment. In particularly relevant cases, the strategic context is noted in the impact description to provide information on how an impact could potentially be adjusted, should the strategic initiatives be completed.

In most instances, long term impacts would dissipate as strategic initiatives in the study area are undertaken.

Permanent impacts identified in Chapter 5, which would carry forward into the operational phase (e.g. permanent property acquisitions or car parking changes). Permanence of impacts considered as part of the risk ratings identified in Chapter 5. In interest of avoiding duplication, those impacts are not identified here.

6.1 Operation impacts (off-airport)

6.1.1 Way of life

Operation of project has implications for way of life of residents, workers and visitors to the study area, as well as community groups, organisations and businesses. This may include impacts to routines and the function of day to day life along the alignment. The project would enhance accessibility and connectivity to Greater Sydney region and to the future Western Sydney International and business park employment precinct. The changes to the urban fabric through the new built structures would influence changes in the regular function of individuals and communities. Potential impacts to way of life as a result of operation of the project are documented in Table 6-1.

Table 6-1: Potential operational impacts to way of life

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	Increased amenity and opportunities for socialising and community activities through built elements improved station concourse, station retail and other station activation opportunities.	Possible	Moderate positive	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
	Potential for increased access to a broader range of facilities and services in St Marys arising from the proposed metro supporting the transition of St Marys to a strategic centre.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
	Improvements to local facilities improving way of life for residents, commuters and visitors, including: • the revitalised St Marys Station, which would include a series of precinct and interchange opportunities (heavy rail, bus, taxi, private vehicle and active transport), offering increased convenience and high level facilities that would improve opportunities to bicycle to the station • increased comfort and convenience through the reconfigured bus interchange and shelters located on both sides of Station Street and a bus layover area located to the east of the metro station. Improved pedestrian access to the station and surround with upgrades to the existing road reserves, new pedestrian crossings and creation of new public plazas adjacent to the proposed station entrances. Improved safe and convenience through the location of safe drop off and pick up points • at Orchard Hills and Luddenham, the proposed metro station would potentially improve local amenity by enabling the transition of the areas to high amenity and walkable communities with a mixed-use residential, commercial and retail development, a mix of diverse housing types and future opportunities to extend station catchment through transport integration establishing an interchange hub to serve surrounding catchments, such as including Glenmore Park • secure bicycle parking close at station entrances supporting healthy lifestyles and long term health benefits.	Possible	Major (positive)	Extreme (positive)	• Nil	Possible	Major (positive)	Extreme (positive)

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	Improved traffic facilities and ease of movement to residents, workers and visitors. Changed road and traffic conditions including a new precinct street, intersections with Luddenham Road, new pedestrian connection to facilitate safe vehicular and pedestrian movement and bus priority measures.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
Access	Improved way of life through better access to infrastructure (existing infrastructure across Greater Sydney as well as future infrastructure along the alignment, including Western Sydney International, the Aerotropolis, Airport Business Park and the Northern Gateway area , and throughout the wider region via improved and more available transport networks).	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
	Improved way of life through better access to employment across Greater Sydney via improved and more available transport networks, as well as employment to be generated along the alignment (i.e. Western Sydney International, the Aerotropolis, Airport Business Park, Luddenham Innovation Precinct and Technology Park).	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
	Increased connectivity to jobs, services, recreation facilities, cultural event, shop as so on due to the new station and new metro station which connects the existing heavy rail to the new metro service.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
Heritage	No operation heritage aspects pertaining to way of life are expected.	–	–	–	• Nil			
Community	Improved community way of life through better connections across the Greater Sydney region.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
Economic	Potential for businesses to develop within and around the station precincts, bringing increased economic activity within the local area and improving way of life for local businesses and residents.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)

6.1.2 Community

The project would impact the function and form of communities during operation. Enhanced connectivity through more accessible and affordable transport options would strengthen the reach and cohesion of communities. Sensitive or vulnerable communities could, through changes to the broader community, built environment and demographic makeup, be subject to a loss of identity. The additional expenditure and local economic activity could drive improved cohesion, as community members benefit from better access to capital, as well as an increased overall sense of wellbeing and ability to actively participate in community activities and other daily activities. Table 6-2 describes the operational impacts to community of the project.

Table 6-2: Potential operation impacts to community

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	Potential impacts to established community fabric through short term disruption to community function at opening of the project, primarily at new station locations.	Unlikely	Minor	Low	• Place Management (see Section 8.2)	Rare	Minor	Low
	Potential benefits to community cohesion through increased local economic activity encouraged by station development, particularly around new station locations.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Potential improvements to community cohesion through improved access to employment and services.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Possible long term impacts to community fabric and cohesion over time, as the area attracts households seeking to live close the metro station to access employment opportunities along the line (particularly from new residents moving closer to the new metro stations), possibly changing the community fabric.	Unlikely	Minor	Low	• Place Management (see Section 8.2)	Rare	Minor	Low
	Potential improvements to community function through availability of new informal community meeting areas around new stations.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
Built environment	Potential changes to community character and loss of identity due to impacts to the peri-urban/rural character of the area. Responses to the community survey indicated that increases in density and associated changes in local character were a concern for some respondents.	Unlikely	Minor	Low	• Implement recommendations of Technical paper 9 (Landscape and visual) • Place Management (see Section 8.2)	Rare	Minor	Low
Heritage	No heritage impacts pertaining to community are predicted	-	-	-	N/A	-	-	-

6.1.3 Access to and use of infrastructure, services and facilities

Access to and use of infrastructure, services and facilities describes the capacity for residents and businesses along the alignment to utilise natural and built assets. This also considers relative levels of improvements or impediments to that access. Communities with lower levels of available capital or heightened vulnerability are particularly reliant upon public services and would experience positive or negative impacts more acutely. The project's impacts associated with access are positive, reflecting the increased access to public transport around the project area.

Table 6-3: Potential operational impacts to access to and use of infrastructure

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Access	Existing and potential future users in station catchments would have new or additional access to the rail network and associated connectivity to major infrastructure including Western Sydney International, and planned development surrounding the Luddenham Road and Aerotropolis Core stations.	Almost certain	Moderate (positive)	Extreme (positive)	• Nil	Almost certain	Moderate (positive)	Extreme (positive)
	Building new metro stations would create opportunities to shape and create vibrant and attractive pedestrian environments around each station, which can promote greater utilisation and improve access. The new stations would include access walkways and cycle paths and other pedestrian and cycle facilities such as bike storage.	Likely	Minor (positive)	High (positive)	• Nil	Likely	Minor (positive)	High (positive)
	Improved transport interchanges can enhance the appeal of utilising the public transport network and can create greater connectivity between places of residence and employment. The new metro would deliver transport interchange points (such as connection to the existing Sydney Trains network at St Marys), potential park-and-ride and kiss-and-ride facilities, bus stops and bus priority measures, point-to-point vehicle facilities and cycle storage areas improving access for all users.	Likely	Moderate (positive)	High (positive)	• Nil	Likely	Moderate (positive)	High (positive)
Community	Improved transport infrastructure connectivity can enhance access to and use of community facilities and services for a larger proportion of the population. The new stations would connect existing and future communities to the established local and regional infrastructure at St Marys and in other centres.	Likely	Moderate (positive)	High (positive)	• Nil	Likely	Moderate (positive)	High (positive)
	Improved or new transport infrastructure can encourage the revitalisation or growth of areas surrounding the stations, creating additional opportunities for community facilities and services to be delivered in accessible walking catchments of major rail infrastructure.	Possible	Major (positive)	Extreme (positive)	• Nil	Possible	Major (positive)	Extreme (positive)

6.1.4 Culture

When operational, the project would impact upon the shared beliefs, customs, values and stories, and connections to land, places, and buildings (including Aboriginal culture and connection to country). Impacts would result from changes to items of cultural significance with either documented historic heritage values or otherwise identified as being of value to affected communities. There also is potential for the project to improve access to cultural infrastructure, which would in turn improve the connection of the community to cultural locations.

Table 6-4 describes the potential impacts to culture during operation of the project. These impacts were informed by Technical paper 4 (Non-Aboriginal heritage) and Technical paper 5 (Aboriginal heritage) of the Environmental Impact Statement. Those technical papers primarily discuss the impacts of construction of the project, with the impacts below building on how those impacts would change as the operational phase of the project begins.

Additional impacts to culture are discussed further in the Way of Life (see Section 6.1.1) and Community (see Section 6.1.2).

Table 6-4: Potential operational impacts to culture

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Heritage	Changed context, or potential disturbance of items of Aboriginal cultural significance situated along the project alignment (known and unknown).	Possible	Moderate	High	• Implement recommendations of Technical paper 5 (Aboriginal heritage)	Unlikely	Moderate	Low
	Changed context for non-Aboriginal heritage items, potentially impacting the capacity of the community to benefit or partake in their significance due to changed conditions associated with operation of the project: • Potentially changed context of remaining heritage items in the St Marys Railway Station Group • Change of context to potential heritage item, McMaster Farm structures through addition rail track through farm site • Change of context to heritage (unlisted) Bringelly RAAF, including the demolition of several buildings, significantly reducing the heritage significance of the site.	Possible	Moderate	High	• Implement recommendations of Technical paper 4 (Non-Aboriginal heritage)	Unlikely	Minor	Low
	Possible loss of connection to place as a result of changes to urban form or community.	Possible	Minor	Moderate	• Place Management (see Section 8.2)	Unlikely	Minor	Low

6.1.5 Health and wellbeing

The impact of the project's operation upon health and wellbeing would be felt in positive and negative impacts to the physical and mental health of the surrounding communities (e.g. noise and vibration, air quality) or through changed access to the services that are required to keep people in good health. Concentrations of at-risk populations, like older residents or children along the project alignment would influence the sensitivity with which these impacts or benefits are felt.

Table 6-5: Potential operational impacts to health and wellbeing

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Community	Expanding a public transportation network can provide benefits across the network associated with more users choosing public transportation over private vehicle traffic. Availability of new stations associated with the project would give communities in station catchments across the Greater Sydney rail network opportunities to use public transport instead of private vehicles, as noted in Chapter 22 (Air Quality) of the Environmental Impact Statement. Opportunities to expand the rail network were also discussed by survey respondents as a potential benefit of the project. Mode shift to public transport would reduce private vehicle traffic, compared to if the project did not occur. Reduced private vehicle traffic would result in a positive impact on air quality across the broader rail network. This is considered in the context of the relatively high private vehicle usage discussed in Section 4.1, representing the potential for local improvements.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Public transportation options that are well connected to pedestrian and active transport networks, with infrastructure that supports active transport, can encourage people to walk or ride bicycles as part of their commute and experience associated health benefits. The project would provide high quality stations that would encourage physical activity by integrating with the surrounding active transport environment, including bicycle facilities.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	New stations, particularly those with commuter car parking, can increase local traffic, with associated air quality and noise impacts. Responses to the community survey indicated that increases in traffic associated with these project elements were a concern for some respondents. Increased local traffic is anticipated for the project in the areas surrounding the new stations, as discussed in Technical paper 1 (Transport). Operational noise and air quality impacts considered in	Unlikely	Minimal	Low	• Nil	Unlikely	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	Technical paper 2 (Noise and vibration) and Chapter 22 (Air Quality) of the Environmental Impact Statement are generally predicted to be low. If these impacts were to occur, they could lead to heightened stress and anxiety.							
	Operation of new stations and associated facilities can result in new sources of noise and vibration. As discussed in Technical paper 2 (Noise and vibration), exceedances to relevant noise criteria are predicted for: residences in proximity to the St Marys underground ventilation shafts This may cause sleep disturbance and associated issues.	Unlikely	Moderate	Low	• Implement recommendations of Technical paper 2 (Noise and vibration)	Rare	Minor	Low
	Operation of the new stabling and maintenance facilities would result in noise exceedances in Orchard Hills during shoulder, evening and night time periods, as detailed in Technical paper 2 (Noise and vibration). Responses to the community survey indicated that increases in noise associated with the project were a concern for some respondents. This has the potential to result in stress for nearby residents	Likely	Moderate	High	• Implement recommendations of Technical paper 2 (Noise and vibration)	Possible	Minor	Moderate
	Air quality impacts associated with electric trains are typically limited to wear and tear on brake pads, wheels and rails, as well as vaporisation of metals due to sparking. As discussed in Chapter 22 (Air quality) of the Environmental Impact Statement, impacts are expected to be negligible along the rail corridor, including at tunnel and station ventilation points.	Unlikely	Minimal	Low	• Nil	Unlikely	Minimal	Low

6.1.6 Surroundings

Impacts to the surroundings include public safety and security, access to and use of the natural and built environment and its aesthetic value and amenity. The influence of the built environment is felt in all aspects of everyday life and influences the decisions that people make that the way in which they experience the world around them. Impacts to surroundings can change one's sense of place and the values ascribed to an area. Impacts to landscape and setting have been included in this impact area.

Table 6-6: Potential operational impacts to surroundings

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Amenity	New stations and associated assets, such as plazas, station entries, streetscape works, and landscaping can contribute to positive amenity impacts when high quality design is prioritised. Responses to the community survey indicated that opportunities for positive urban design outcomes were seen as a benefit by some respondents. High quality design can increase the sense of place and enhance the aesthetic value of a location. Impacts are associated with: • works associated with St Marys Station and associated plazas would have the potential to enhance the visual amenity of the Station Street, Harris Street and Queen Street local environments. • new stations in Luddenham and Bringelly would have the potential to make positive contributions to the future character of areas anticipated to experience significant uplift, as foreshadowed in the draft WSAP.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
	New stations associated facilities and rail corridors can significantly disrupt the existing visual amenity by introducing built forms that conflict with local character and block sightlines. This can deter the use of the natural and built environment and lower the aesthetic value of an area. Potential impacts of the project are discussed in Technical paper 9 (Landscape and visual) of the Environmental Impact Statement and include: • Claremont Meadows and St Marys built forms would result in negligible to minor adverse visual impacts associated with changes to views • new stations in Orchard Hills, Luddenham and Bringelly would result in minor to moderate adverse visual impacts associated with changes to views • impacts are expected to reduce over time as the areas transform, as foreshadowed by District Plan, WSAP and the Penrith to Eastern Creek Growth Investigation Area.	Possible	Minor	Moderate	• Implement recommendations of Technical paper 9 (Landscape and visual)	Unlikely	Minimal	Low

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	New stations, associated facilities and rail corridors can result in changes to noise conditions, changing the environmental amenity surrounding new assets and activities. Potential noise impacts of the project are discussed in Technical paper 2 (Noise and vibration) of the Environmental Impact Statement and include increases to noise levels across the project corridor. As per that technical paper: • noise levels are typically lower than the relevant noise criteria • despite being within criteria ranges, additional noise would result in a reduced level of amenity, compared to existing levels in the largely rural and semi-rural areas of Orchard Hills, Luddenham and Bringelly. Increased noise impacts can reduce the desirability and appeal of a location but would unlikely deter people from travelling to and using affected areas.	Likely	Minimal	Moderate	• Implement recommendations of Technical paper 2 (Noise and vibration)	Possible	Minimal	Low
	Noise associated with the stabling and maintenance facility, discussed in Technical paper 2 (Noise and vibration) of the Environmental Impact Statement is predicted to result in exceedances against noise criteria, which represents noise levels above the existing environment. This would represent a substantial change to the amenity of the area around the stabling and maintenance facility and potentially deter people from accessing and using the area.	Likely	Moderate	High	• Implement recommendations of Technical paper 2 (Noise and vibration)	Possible	Minor	Moderate
Community	Modifications to public transport facilities present an opportunity to address existing shortcomings and incorporate best practice design elements that can benefit the community. Responses to the community survey indicated crime around the existing St Marys Station and new stations associated with the project was a concern for some respondents. As discussed in Section 4.2, the area around the existing St Marys Station has a relatively high crime rate. This could potentially be improved by increased lighting, surveillance infrastructure and passive surveillance associated with additional foot traffic.	Possible	Moderate (positive)	High (positive)	• Implement the recommendations of the SM Design Guidelines (Appendix E of the EIS)	Likely	Moderate (positive)	High (positive)

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Economic	New public assets that require staffing can increase local employment levels, which would result in positive economic impacts for local businesses that cater to the surrounding workforce, such as retail and food services. This impact is discussed in Chapter 7 (Project description – operation) of the Environmental Impact Statement) and is estimated to be approximately 75 staff per shift. The project would increase the permanent workforce in the areas around stations, service facilities and the stabling and maintenance facilities. This would potentially increase trade in nearby areas and the economic livelihood of business owners and employees.	Likely	Minor (positive)	High (positive)	• Nil	Likely	Minor (positive)	High (positive)
	Expanding a public transport network can increase the trade catchments of businesses around new stations. This would be driven by the increased population of people with access to the rail infrastructure and people that would otherwise be discouraged from using private vehicles seeking goods and services near the network. Responses to the community survey indicated that extensions to the public transport network were highly valued by some respondents. The project would increase trade catchments for areas around stations, potentially increasing trade and the livelihood of businesses owners and employees.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Expanding a public transport network can increase the employment catchments for areas around new stations. This would be driven by people that would otherwise be discouraged from using private vehicles seeking employment near the rail network, as well as enabling a net increase in jobs around stations associated with future uplift.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)

6.1.7 Personal and property rights

The consideration of potential impacts to personal and property rights encompasses how economic livelihoods are affected by the project and whether they experience personal disadvantage or have their civil liberties affected. Impacts arising from land acquisitions for construction are addressed in Section 5.1.8. This section is concerned with impacts after the commencement of operations.

Table 6-7: Potential operational impacts to personal and property rights

Social matter	Pre-mitigation impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Access	Operation of the project would improve the capacity of the rail network. It would also potentially increase ridership levels on the existing bus network, which could justify an expansion to the bus network in the future, separate to this project. The station precincts would also be designed to accommodate bus connectivity, which would provide increased access for existing and future residents, workers and visitors to jobs, facilities and locations across Western Sydney.	Likely	Major (positive)	Extreme (positive)	• Nil	Likely	Major (positive)	Extreme (positive)
Built environment	Impacts are not anticipated on the physical condition or structural integrity of public infrastructure that would result in personal disadvantage or effects on property rights.	Unlikely	Minimal	Low	• Nil	Unlikely	Minimal	Low
Community	The project would increase accessibility and would support the broader strategic planning occurring within the Western Parkland City, such as supporting the availability and choice of housing.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)
Economic	The project would increase accessibility and would support the broader strategic planning occurring within the Western Parkland City, such as supporting employment in proximity to future stations.	Possible	Moderate (positive)	High (positive)	• Nil	Possible	Moderate (positive)	High (positive)

6.1.8 Decision-making systems

Impacts to decision-making systems requires a consideration of the extent to which residents and the community can have a say in decisions that affect their lives, and have access to complaint, remedy and grievance mechanisms. The decision-making systems of the government aim to provide the mechanisms for people to have their say, and provide for complaint, remedy and grievance mechanisms. As such, decision-making systems have only been addressed broadly in this report within other social factors.

Table 6-8: Potential operational impacts to decision making systems

Social matter	Impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Decision-making	Residents, workers and visitors who experience negative impacts associated with the project, such as noise and safety, may feel that they are unable to request that impacts be reduced to their satisfaction.	Possible	Moderate	High	• Implement OCCS	Unlikely	Moderate	Moderate

6.1.9 Fears and aspirations

The project has potential to have negative impacts associated with fear of disruption to local community character as well as perceptions about potential long-term changes to the fabric of the community associated with the project. Community stakeholders may feel uncertain about urban renewal and the planned development along the proposal metro corridor, of which, the project is an enabling part. Others may feel that that the project may result in positive changes associated with better transport connections and potential future investments in the local community.

In general, the potential for construction work to impact on fears and aspirations would be different for individuals within the study area. However, at some level it is likely that construction may result in:

- uncertainty and apprehension about nature of works and potential impacts to community character
- concerns about potential for long term changes to community character.

Table 6-9: Potential operational impacts to fears and aspirations

Social matter	Impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
Fears and aspirations	Potential feelings that the project is a positive change associated with better transport and access opportunities.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Potential feelings that the project would result in increased investment in local communities and result in associated benefits.	Possible	Minor (positive)	Moderate (positive)	• Nil	Possible	Minor (positive)	Moderate (positive)
	Uncertainty regarding the safety of driverless trains, despite positive safety record.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential fears that the new rail line may encourage redevelopment and increase densities surrounding station precincts with associated changes to the local community and character leading to a fear they would be irreversibly changed. The community survey found that some respondents were concerned about the changes that the metro would bring while others were supportive of the metro station.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential concerns around changes in the level of activity in St Marys, including: • increased traffic in the vicinity of St Marys Station, associated with increased passengers passing through the station. • growth and development at St Marys and increased volume of people passing through the centre resulting in changing the centre to have a more regional focus. Potential for feelings that St Marys would be too big and busy and not somewhere that would be nice to spend time in. • Potential concerns about the impact personal and property rights (considered above).	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential fears that vibrations from movements of metro trains in tunnels would cause ongoing disturbance to nearby residents, even though Technical paper 2 (Noise and Vibration) of the Environmental Impact Statement does not support this view. Responses to the community	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate

Social matter	Impact	Without mitigation			Mitigation measure	With mitigation		
		Likeli-hood	Conse-quence	Risk		Likeli-hood	Conse-quence	Risk
	survey indicated that vibration associated with operation of the project was concern for some respondents.							
	Potential fear of negative impacts to air quality from increased emissions from the tunnel vent having health consequences, even though Chapter 22 (Air Quality) of the Environmental Impact Statement does not support this view.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential concerns around the ongoing impact of train noise and vibration on way of life, health and wellbeing and livelihood, even though the technical reports do not support this view.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential concerns over the scale of development and uncertainty about the future of community character in the rural and semi-rural areas surrounding new stations. The quiet rural setting could transition to urban development, with the project only being the beginning of a transformation. Responses to the community survey indicated that increases in density and associated changes in local character, as well as an increase in urban sprawl were a concern for some respondents.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate
	Potential fears that the project would not tie into the existing public transport network sufficiently. Responses to the community survey indicated that some respondents placed a higher value on connections to other existing stations, or a larger project that connected to Marsden Park.	Possible	Minor	Moderate	• Nil	Possible	Minor	Moderate

6.2 Operation impacts (on-airport)

Operation of the project on-airport is not expected to result in significant negative socio-economic impacts. Potential amenity impacts on future commercial structures are anticipated to be either out of hours, or likely mitigated by design requirements to accommodate aircraft noise, as discussed in Technical paper 2 (Noise and vibration).

A qualitative review of potential positive socio-economic impacts is discussed below:

- the addition of the metro would afford better access for workers, commuters and travellers to Western Sydney International, a significant positive impact
- the project and associated stations and supporting infrastructure would form an essential part of the community fabric of the Airport Business Park and Airport Terminal precincts
- the project would reduce pressure affecting on-airport road networks, improving access for travellers and workers to Western Sydney International
- the project would have significant widespread impacts to the local, regional and national economies. The project would catalyse early jobs growth associated with the Aerotropolis, Airport Business Park and Western Sydney International. The project adds value to the Australian Government's investment in Western Sydney International and would enable future stages of an integrated metro network necessary to achieve planned growth for Greater Sydney. It would support the attraction of investment in a new and emerging economic centre for multinational businesses. These investments would, in time, be important to the long-term economic growth of NSW.

7.0 CUMULATIVE IMPACTS

Cumulative social impacts are described as the successive, incremental and/or combined impacts (both positive and negative) of the project when added to another project in the study area. They can arise from a single project activity, multiple activities or from interactions with other past, current and foreseeable future project activities in the area.

As identified in the Environmental Impact Statement, there are other major projects which combined with the project could generate cumulative benefits and impacts. These projects include:

- Western Sydney International (Stage 1): Strategic planning for the greenfield land around the airport will foster opportunities to deliver new jobs and homes supported by key infrastructure in the heart of Western Sydney. The project would make a significant contribution to 200,000 new jobs for Western Sydney by establishing a new high-skill jobs hub across aerospace and defence, manufacturing, healthcare, freight and logistics, agribusiness, education and research industries (NSW Department of Planning, Industry and Environment).
- Future M12 Motorway: As part of the WSIP, Transport for NSW is proposing the construction of the future M12 Motorway running east-west between the M7 Motorway, Cecil Hills and The Northern Road in Luddenham over a distance of about 16 kilometres. Construction of the project is expected to start in 2022 and be open to traffic before the opening of the Western Sydney International Airport in 2026..
- St Marys Intermodal Freight Terminal: Pacific National has received approval for the staged construction and operation of an intermodal (road and rail) terminal and container park near St Marys. Among the benefits of the project, is the potential reduction in heavy vehicle road transportation of containers from Port Botany. This is expected to result in improvements in air quality, lower carbon emissions by reducing heavy vehicle exhaust emissions, as well as reduced traffic volumes and congestion along main arterial roads between Port Botany and western Sydney. Improvements in transportation efficiency and the delivery of goods in a more efficient manner would subsequently have potential economic benefits.
- The Northern Road Upgrade: Transport for NSW is implementing a program of works to upgrade 34 kilometres of The Northern Road, between Narellan and Penrith. The upgrades form part of the joint NSW and Commonwealth Government's $3.6 billion Western Sydney Infrastructure Plan to upgrade road infrastructure in western Sydney over the next ten years (NSW Department of Planning, Industry and Environment).

Potential cumulative impacts of these projects are discussed in detail in Chapter 24 (Cumulative impacts) of the Environmental Impact Statement.

This section provides an overall qualitative assessment of potential social impacts as informed by the analysis undertaken in these assessments, and further social impacts.

7.1 Construction

The cumulative social and economic benefits of the identified projects during construction would include increased opportunities for economic development and employment opportunities, contributing to increased household incomes across the Western Sydney region.

The cumulative social and economic impacts of the identified projects during construction of the project would include:

- concurrent construction activities may cause a temporary increase in construction traffic with the potential to produce a temporary cumulative traffic noise impact along common haulage routes
- increased traffic on local roads, as well as construction activities, may cause temporary changes in the rural character and lifestyle impacting the amenity of nearby properties and communities due to construction noise, vibration and dust
- concurrent construction of the identified projects may produce a spike in temporary workers in an area which may create a short-term cumulative shortage of accommodation
- progressive land use changes, landscape character transformation and transition from rural residential and agricultural lands use to more developed land uses, or a more urbanised and commercial setting
- temporary impacts on access, and connectivity and increased construction traffic combined with temporary road closures may cause construction fatigue in the nearby communities and increased commute time
- extended construction periods and associated impacts on traffic, noise, air quality and amenity may result in construction fatigue in surrounding communities.

7.2 Operation

The cumulative social and economic benefits of the identified projects during operation of the project would include:

- the availability of jobs and increased economic activity would drive economic and employment growth in Western Sydney
- greater transport efficiencies by relieving pressure on existing roads, and reducing traffic volumes and congestion along some of western Sydney's main arterial roads
- improved access to the future Western Sydney Aerotropolis and the South West Growth Area including direct access to Western Sydney International
- increased road capacity for future growth and development as well as increased opportunities for pedestrian and cyclist infrastructure and associated reduced congestion impact on the community and businesses
- greater opportunities to increase tourism and demand for accommodation in the region, potentially promoting other industries
- generation of a range of economic opportunities through investment and employment and through the demand generated by the developments and associated workforce
- generation of diverse employment opportunities to support the airport operations, as well as the commercial activities at the Western Sydney Aerotropolis
- increased population redistribution into Western Sydney due to potential employment opportunities would likely increase demographic and cultural diversity in the region, supporting ongoing trends.

The cumulative social and economic impacts of the identified projects during operation of the project would include:

- impacts to traditional industries in Western Sydney, such as agriculture and manufacturing, due to competition for land and cost of labour
- changes in local character and potential impacts on social amenity
- redistribution of population growth across Western Sydney contributing to ongoing population increase and resulting in additional demand on social infrastructure.

8.0 PROPOSED MANAGEMENT AND MITIGATION MEASURES

8.1 Approach to the mitigation measures

This chapter describes the environmental management approach and framework for social impacts relating to construction and operation of the project. Further details on the environmental management approach for the project are provided in Chapter 27 (Synthesis) of the Environmental Impact Statement and the supporting technical papers.

Impacts relating to the socio-economic environment would be managed through the following management frameworks and strategies:

- Construction Environmental Management Framework (CEMF)
- Construction Traffic Management Framework (CTMF)
- Construction Noise and vibration Standard (CNVS)
- Overarching Community Communications Strategy (OCCS)
- Construction Environmental Management Plans (CEMPs) and sub-plans
- performance outcomes
- mitigation measures
- performance and compliance reporting.

Mitigation measures relating to business impacts are also discussed in the following technical papers of the Environmental Impact Statement:

- Technical paper 1 (Transport)
- Technical paper 2 (Noise and vibration)
- Technical paper 4 (Non-Aboriginal heritage)
- Technical paper 5 (Aboriginal heritage)
- Technical paper 8 (Contamination)
- Technical paper 9 (Landscape and visual).

This chapter assumes the mitigation measures outlined the above documentation would be implemented during the construction and operation of the project. Particularly relevant management measures outlined in the documentation are discussed as they are relevant for the mitigation of social impacts.

This chapter also outlines additional project specific mitigation measures identified in Chapter 5 and Chapter 6, which have been designed to reduce social impacts, and not otherwise noted in the above documentation.

8.2 Proposed mitigation measures

In addition to the broader project mitigation measures in Section 8.3 and Chapter 27 (Synthesis) of the Environmental Impact Statement, project specific mitigation measures have been identified. These are included in Table 8-1.

Table 8-1: Overview of SEIA mitigation measures for the project

Ref	Social matter	Mitigation	Location
SE1	Way of life Community Culture Surroundings	Consultation with the local community and project stakeholders would be undertake to: • identify and deliver opportunities for facilitating local creative and cultural activities in appropriate project locations • identify and deliver initiatives and opportunities to provide a positive contribution to the potentially affected community and affected locations such as temporary public art and targeted community events and programs	Off--airport
SE2	Way of Life Community Surroundings	Consultation with Penrith City Council and Transport for NSW would be undertaken to identify opportunities for alternative commuter car parking around St Marys if the planned expansion of the multi-level commuter car park does not proceed	St Marys
SE3	Personal and property rights	Where partial property acquisition has been identified, undertake property liaison and consultation activities to minimise disruption to property owners and activities on impacted sites.	Areas of off-airport partial property acquisition.

8.3 Interactions between mitigation measures

Mitigation measures outlined in Chapter 27 (Synthesis) and supporting technical papers would mitigate many of the socio-economic impacts associated with the project, as identified in Chapter 5 and Chapter 6 of this SEIA.

Relevant mitigation measures, and the locations that they are relevant, are discussed below. Mitigation measures have been grouped by theme to demonstrate how the mitigations would mitigate the socio-economic impacts. This provides context for how mitigation measures are relevant to not only reducing risk to the built and natural environment, but to the socio-economic environment as well.

Table 8-2 identifies the mitigation measures that are not SEIA specific that are relevant to mitigating socio-economic impacts. They are provided for context and do not represent additional commitments.

Table 8-2: Overview of relevant mitigation measures for the project

Social matter	Mitigation strategy	Location
Way of life Community Access to infrastructure, services and facilities	**Minimise access disruptions** Where possible, schedule road works in accordance with the CEMF, CTMF and CNVS to minimise disruption and access to residences, businesses and social infrastructure.	Off-airport construction sites
Way of life Community Access to infrastructure, services and facilities	**Manage amenity through application of consistent frameworks** A CEMF has been prepared as part of the Environmental Impact Statement with the goal of outlining and implementing management measures for project impacts. The CEMF outlines the management systems and process to be applied during construction, with requirements to be addressed by construction contractors. Additional management measures for construction noise are outlined in the CNVS. The CNVS would define how construction noise and vibration	Off-airport construction sites

Social matter	Mitigation strategy	Location
Health and wellbeing Surroundings	would be managed. More detailed CNVIS would be prepared to provide more detailed management measures based on site by site characteristics. These documents, along with detailed CEMPs, would respond to amenity impacts during the construction period, such as visual, noise, vibration and air quality.	
Way of life Community Access to infrastructure, services and facilities Health and wellbeing Surroundings	**Maintain safe and accessible transportation networks** The CTMF outlines contractor requirements, traffic management processes and acceptable criteria to be considered and followed in managing the roads and footpaths near construction worksites. The CTMF would inform more detailed Construction Traffic Management Plans (CTMPs) and Traffic Control Plans (TCPs) that would include site-specific mitigation measures for the construction of the project. Likewise, the CEMF and OCCS outline communication methods with the community to maximise opportunities for the community to adapt to changes ahead of time. Mitigation measures outlined in Technical paper 1(Transport) outline particularly relevant measures relating to advance community notification (T3), road safety audits (T4), maintained and signposted access for pedestrians and cyclists (T5/T8) and maintained access to properties and existing infrastructure (T11). Implementation of these frameworks, plans and mitigation measures would help ensure that the impacts of … are reduced to a manageable level for the community and sensitive populations.	Off-airport construction sites
Way of life Community Access to infrastructure, services and facilities	**Engage with residents and other stakeholders** The OCCS has been provided with the Environmental Impact Statement. The OCCS outlines the stakeholders potentially impacted by the project that would be consulted during construction, the procedures for distribution of information, and clear pathways for communities to provide feedback and resolve issues. The OCCS would be critical to ensure local residents, businesses, service providers and visitors have opportunities to adjust their routines in a way that minimises impacts. Communication regarding the timing of construction activities, night works, road closures and diversions would be a priority.	Off-airport construction sites
	Preserve local streetscapes Technical paper 8 (Landscape and visual) outlines the importance of taking opportunities to mitigate visual impacts by designing construction phase streetscape to be compatible with the surrounding environment. For instance, care should be taken to maximise the number of street trees to be retained, as well as identifying opportunities to implement landscape tree planning as part of construction works (LV1).	Off-airport construction sites
Community Surroundings	**Protect and restore local views** The project is anticipated to result in visual impacts in areas that are currently highly sensitive to changes to rural views. Technical paper 8 (Landscape and visual) identifies opportunities to mitigate the long term impacts of the Project by restoring vegetation along creeks (LV4) reducing visual clutter and keeping structures to a low profile (LV5), integrating Project elements into the existing landform and natural environment (LV6), with a particular focus on screening the stabling and maintenance facility with vegetation (LV3).	Off-airport construction sites in Orchard Hills, Luddenham and Bringelly

Social matter	Mitigation strategy	Location
Culture Surroundings	**Preserve local heritage** The project is anticipated to alter or destroy heritage items within or near the project alignment. Technical paper 4 (Non-Aboriginal heritage) and Technical paper 5 (Aboriginal heritage) contain site specific and relevant mitigation measures to reduce the impact of construction of the project, helping to ensure heritage value loss is minimised.	Off-airport construction sites in-St Marys, Luddenham and Bringelly

9.0 CONCLUSION

This SEIA has reviewed a broad range of potential positive and negative impacts that may arise from the project. The impacts have been found to vary across different geographic areas, business and demographic groups.

During construction, some negative impacts would occur, with St Marys being the location of the most negative impacts. Construction would temporarily negatively affect the day to day operation of numerous businesses located within St Marys Town Centre as well as local residents and regular visitors to the shops, services and employment lands located near the station. These impacts would range from the acquisition and/or relocation of businesses to construction related disturbances. Likely impacts to businesses would include noise, vibration, dust, disruptions to traffic and pedestrian movements, customer access, changes to passing trade, business servicing facilities and travel times.

Other temporary negative impacts of the project across the remainder of the study area would primarily relate to increases in the level of noise, vibration and traffic congestion for nearby sensitive receivers. These disturbances are likely to affect daily activities such as travel to work, business operation and the use of some public spaces in the station radii in addition to the availability of some community and cultural services.

During operation, a variety of social benefits would result from the project owing to the associated improvements in connectivity. Benefits include better access to employment and education opportunities, social and community services, and cultural activities. Other benefits relate to reduced traffic congestion, increased opportunities for physical activity and social interaction, and improvements to the quality and character of the urban environment.

The project would deliver on strategic planning goals for Greater Sydney and would extend Sydney's existing transport network by providing new connections to Western Sydney International and the Aerotropolis. The project would increase access from the study area to jobs and broaden the scale of the workforce that can access major employment destinations using sustainable travel options. These benefits would have positive wider economic merits including enhanced opportunities for business agglomeration at Airport Business Park and Aerotropolis and support increased innovation and productivity. Positive economic impacts would also relate to the generation of economic multipliers arising from investment in major infrastructure, and the resulting direct and indirect generation of employment from construction.

Appropriate forms of mitigation and management would allow negative impacts of the project to be addressed to an acceptable level. The implementation and ongoing monitoring of these impacts, coupled with Sydney Metro's project commitments, would support delivery of a socio economic benefits associated with the project.

10.0 REFERENCES

- Australian Bureau of Statistics, 2016, Australian Census of Population and Housing [accessed via TableBuilder Pro and Census QuickStats in June 2020]
- Australian Bureau of Statistics, 2016, 2033.0.55.001 - Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA) [accessed July 2020]
- Greater Sydney Commission, 2018, A Metropolis of Three Cities - the Greater Sydney Region Plan
- NSW Department of Planning and Environment, 2017, Social Impact Assessment Guidelines for State significant mining, petroleum production and extractive industry development
- NSW Government, 2019, Western Sydney Aerotropolis Plan (Draft)
- NSW Roads and Maritime Services, 2013, Environmental Impact Assessment Practice Note (EIA-N05) – Socio-economic assessment (Note: Now Transport for NSW)
- Penrith City Council, 2009, Penrith Urban Strategy Managing Growth to 2031
- Transport for NSW, 2018, Western Sydney Rail Needs Scoping Study

APPENDIX A: SIA SCOPING TOOL OUTCOMES

Social impact assessment (SIA) scoping worksheet for:			*Sydney Metro Western Sydney Airport*			Date:		*30-Apr-20*		
Scoping results from EIS Worksheet						**Is there a social impact?**		**What information will be required to assess the social impact?**		
Social and environmental matters *Click on a matter below for brief description, or refer to full glossary*			**Outline of impact** *(Auto fill from EIS worksheet)*	**Is a material effect on the matter expected?** *(Auto fill from EIS worksheet)*	**Is there community or other stakeholder concerns regarding the impact or activity?** *(Auto fill from EIS worksheet)*	**With regard to the matter expected to be impacted, will** **Yes/No** *(Select from list)*	**If yes, outline the social impact** *(Manual entry, if not already covered in column D)* If no, outline why *(Manual entry)*	**Are impacts on the matter expected to require a non SIA specialist study?** *(Auto fill from EIS worksheet, then manually enter non SIA report type)*	**Will the non SIA specialist study address the social impact?** *Click on link above for further detail on potential classifications* *(Select from list)*	**Level of assessment for the social impact in the SIA** *Click on link above for further detail on potential classifications* *(Auto fills)*
	AMENITY	acoustic	Consult noise/vibration report Construction - Civil construction works along project alignment/stations - Construction activities within construction sites - Utility protection, adjustment and relocations - Construction road traffic - Vibration associated with tunnelling/excavation. Operation - Metro trains above ground - Operation of stations - Operation of fixed facilities (E.g. stabling and substations)	Yes	Yes	Yes	SURROUNDINGS / WAY OF LIFE / HEALTH Construction: Temporary reduced amenity for sensitive receivers around construction sites/project corridor, including construction traffic. Operation: Permanent noise associated with operation above ground/around portals. Noise associated with operation of stations.	Yes - enter generic title	Yes - in part	Standard SIA
		visual	Consult landscape and visual impact assessment Construction - Establishment of construction compounds, worksites, temporary noise barriers, stockpiles, including those near stations and tunnel portals - Removal of vegetation - Light spill from construction sites during out-of-hours construction - Construction vehicle movements within worksites and along haulage routes. - Parking, footpath diversions and relocations - Presence of construction equipment, including acoustic sheds - Elevated construction works (e.g. viaduct) - Access roads and work areas around utilities Operation - Infrastructure will be located within tunnels and cuttings (reducing visual impact) - surface level infrastructure, such as stations or the stabling facility - elevated infrastructure (e.g. viaducts) - Tunnel portals - Power supply upgrades and traction substations - Light spill from stations and other permanent infrastructure	Yes		Yes	SURROUNDINGS / PROPERTY RIGHTS Construction: Temporary reduced visual amenity associated with construction activities identified in column D. Operation: Permanent view alteration around stations and in viaduct/ground level portions of project corridor	Yes - enter generic title	Yes - in part	Standard SIA
		access to property	Construction - Impacts to access to private properties and public land - Internal severance of land Operation - To be determined	Yes		Yes	WAY OF LIFE / PROPERTY RIGHTS / ACCESS / COMMUNITY / SURROUNDINGS Construction: Temporary and permanent severance of land. Temporary access reduction around construction sites and project corridor.	No	No	Comprehensive SIA
		utilities	Construction - Construction near the Warragamba pipeline - Electricity infrastructure development at Kemps Creek, Claremont Meadows and Erskine Park - Ground movement and settlement due to exactions and tunnelling works during construction - Rupture of, or interference with, underground services during construction Operation - Restrictions to land use and infrastructure development associated	Yes		Yes	PROPERTY RIGHTS Construction: Temporary disruption of services associated with construction activities.	No	No	Comprehensive SIA

Social impact assessment (SIA) scoping worksheet for:			Sydney Metro Western Sydney Airport			Date:		30-Apr-20		
			Scoping results from EIS Worksheet			Is there a social impact?		What information will be required to assess the social impact?		
Social and environmental matters *Click on a matter below for brief description, or refer to full glossary*			Outline of impact *(Auto fill from EIS worksheet)*	Is a material effect on the matter expected? *(Auto fill from EIS worksheet)*	Is there community or other stakeholder concerns regarding the impact or activity? *(Auto fill from EIS worksheet)*	With regard to the matter expected to be impacted, will Yes/No *(Select from list)*	If yes, outline the social impact *(Manual entry, if not already covered in column D)* If no, outline why *(Manual entry)*	Are impacts on the matter expected to require a non SIA specialist study? *(Auto fill from EIS worksheet, then manually enter non SIA report type)*	Will the non SIA specialist study address the social impact? *Click on link above for further detail on potential classifications* *(Select from list)*	Level of assessment for the social impact in the SIA *Click on link above for further detail on potential classifications* *(Auto fills)*
What does the proposal mean for people?	ACCESS	road and rail network	Consult transport assessment Construction - Impacts to train services on T1 western Line at St. Marys - Construction vehicle movements to and from construction sites along project alignment - Modification of intersecting regional and local roads - Temporary road/lane closures for regional and local roads - Severing local roads temporarily (during construction) Operation - Potential increase in local vehicle traffic associated with park and ride or similar facilities - Severance of current and future movement corridors across the surface sections of the rail corridor between Lansdowne Road and Elizabeth Drive - Improvements in road network, public transport and active transport facilities around stations. - Decrease in overall regional private vehicle traffic associated with	Yes		Yes	WAY OF LIFE / PROPERTY RIGHTS / ACCESS / COMMUNITY / SURROUNDINGS / HEALTH Construction: Temporary change in rail service at St Marys and associated rail lines to accommodate construction. Temporary change in road networks/capacity to accommodate construction activities. Operation: Permanent change in rail network (positive) Permanent change in local road networks, particularly around stations.	Yes - enter generic title	Yes - in part	Standard SIA
		offsite parking	Consult transport impact assessment Construction - Impacts to the availability of off-street and on-street public parking for construction sites in urban areas Operation - Permanent loss in some car parking - Increase in parking around stations	Yes		Yes	WAY OF LIFE / PROPERTY RIGHTS / ACCESS / COMMUNITY / SURROUNDINGS Construction: Temporary loss in parking to support construction activities. Temporary increase in demand for parking associated with staff. Operation: Permanent loss in off-street parking associated with new stations. Permanent increase in parking associate with	Yes - enter generic title	Yes - in part	Standard SIA
	BUILT ENVIRONMENT	public domain	Construction - Reduced access to the public domain, specifically in the vicinity of St Marys Station Operation Potential for an improved public domain in St Marys after return of the construction site [TO BE DISCUSSED}	Yes		Yes	WAY OF LIFE / PROPERTY RIGHTS / ACCESS / SURROUNDINGS / HEALTH Construction: Temporary loss of public domain, particularly in St. Marys, to support construction works. Operation: Permanent improvements to public domain associated with new stations.	Yes - enter generic title	No	Comprehensive SIA
		public infrastructure	Construction - Wear and tear on roads surrounding construction sites associated with construction movements Operation - Significant improvement to public transport infrastructure and improved transport outcomes to a significant population	Yes		Yes	WAY OF LIFE / ACCESS / SURROUNDINGS Construction: Temporary damage to road infrastructure associated with increased construction traffic. Operation: Reinstatement of damaged infrastructure.	No	No	Comprehensive SIA
		other built assets	Construction - Acquisition and demolition of existing structures to support construction activities - significantly so in St Mary's Operation -Improved rail and station assets	Yes		Yes	WAY OF LIFE / PROPERTY RIGHTS / ACCESS / COMMUNITY / SURROUNDINGS / HEALTH Construction: Temporary loss of private assets (homes/businesses) to accommodate construction footprint.	Yes - enter generic title	No	Comprehensive SIA

Social impact assessment (SIA) scoping worksheet for:	*Sydney Metro Western Sydney Airport*				Date:	*30-Apr-20*		
Scoping results from EIS Worksheet				**Is there a social impact?**		**What information will be required to assess the social impact?**		
Social and environmental matters *Click on a matter below for brief description, or refer to full glossary*			**Outline of impact** *(Auto fill from EIS worksheet)*	**Is a material effect on the matter expected?** *(Auto fill from EIS worksheet)*	**Is there community or other stakeholder concerns regarding the impact or activity?** *(Auto fill from EIS worksheet)*	**With regard to the matter expected to be impacted, will** **Yes/No** *(Select from list)*	**If yes, outline the social impact** *(Manual entry, if not already covered in column D)* If no, outline why *(Manual entry)*	**Are impacts on the matter expected to require a non SIA specialist study?** *(Auto fill from EIS worksheet, then manually enter non SIA report type)*	**Will the non SIA specialist study address the social impact?** *Click on link above for further detail on potential classifications* *(Select from list)*	**Level of assessment for the social impact in the SIA** *Click on link above for further detail on potential classifications* *(Auto fills)*
	HERITAGE	natural	Construction - Construction activities nearby to listed heritage items (Orchard Hills Cumberland Plain Woodland, St Marys Station and Goods Shed and Kelvin Park Homestead at Bringelly)	Yes		No	CULTURE / COMMUNITY Construction: Unknown	No		No SIA required
		cultural	Consult heritage impact assessments Construction - Potential impacts to unlisted heritage items and archaeology - Potential construction vibration impacts to listed heritage items - Potential settlement and ground-borne noise and vibration impacts from tunnelling - Potential indirect impacts to the visual setting of heritage items during the construction and operation of the project	Yes		Yes	CULTURE / COMMUNITY As in column D	Yes - enter generic title	Yes - in part	Standard SIA
		Aboriginal cultural	Consult Aboriginal heritage impact assessment Construction - Potential for direct and indirect impacts to previously recorded and unrecorded Aboriginal sites - Potential for disturbance as a result of surface infrastructure, including bridge, viaduct, cutting, cut and cover tunnel or other at or aboveground infrastructure construction - Potential for impacts associated with settlement associated with tunnelling - Potential for impacts associated with visual impacts of surface	Yes		Yes	CULTURE / COMMUNITY As in column D	Yes - enter generic title	Yes - in part	Standard SIA
		built	Consult non-Aboriginal impact assessment Construction - construction activities within curtilage of listed heritage items (St. Marys Station)	Yes		Yes	CULTURE / COMMUNITY As in column D	No	Yes - in part	Standard SIA
		safety	Consult transport impact assessment Construction - Impacts to the safety of motorists, pedestrian and cyclists due to potential conflicts with construction vehicles	Yes		Yes	HEALTH / WAY OF LIFE / ACCESS / PROPERTY RIGHTS Construction: Temporary reduced safety for road users associated with changed traffic conditions Temporary increased crime risk associated with construction stockpiles/reduced visibility in	No	No	Comprehensive SIA
	COMMUNITY	services and facilities	Construction - Temporary access restrictions to social infrastructure	Yes			WAY OF LIFE / HEALTH / ACCESS / PROPERTY RIGHTS / CULTURE / COMMUNITY Construction: Temporary reduction in access/amenity of public services and facilities. Loss of Station Street shops Operation: Permanent increased access to facilities via rail.	Yes - enter generic title	No	Comprehensive SIA
		housing	Construction - Potential impacts on community values and lifestyle - Temporary access restrictions or changes resulting from construction sites and activities - Impacts associated with property acquisition Operation - Potential impacts on community values and lifestyle - Social impacts associated with the severance of the local road	Yes			WAY OF LIFE / HEALTH / PROPERTY RIGHTS / COMMUNITY Construction: Temporary reduction in access/amenity of housing (property loss discussed above). Operation: Permanent increase in access to housing via rail.	Yes - enter generic title	No	Comprehensive SIA

Social impact assessment (SIA) scoping worksheet for:			Sydney Metro Western Sydney Airport			Date:		30-Apr-20		
			Scoping results from EIS Worksheet			Is there a social impact?		What information will be required to assess the social impact?		
Social and environmental matters *Click on a matter below for brief description, or refer to full glossary*			Outline of impact *(Auto fill from EIS worksheet)*	Is a material effect on the matter expected? *(Auto fill from EIS worksheet)*	Is there community or other stakeholder concerns regarding the impact or activity? *(Auto fill from EIS worksheet)*	With regard to the matter expected to be impacted, will Yes/No *(Select from list)*	If yes, outline the social impact *(Manual entry, if not already covered in column D)* If no, outline why *(Manual entry)*	Are impacts on the matter expected to require a non SIA specialist study? *(Auto fill from EIS worksheet, then manually enter non SIA report type)*	Will the non SIA specialist study address the social impact? *Click on link above for further detail on potential classifications* *(Select from list)*	Level of assessment for the social impact in the SIA *Click on link above for further detail on potential classifications* *(Auto fills)*
	ECONOMIC	natural resource use	Consult biodiversity impact assessment Construction - Severance of rural properties from natural resources - Permanent and temporary reduction on availability of arable land Operation - Severance of rural properties from natural resources - Permanent reduction in the availability of arable land	Yes		Yes	PROPERTY RIGHTS	Yes - enter generic title		
		livelihood	Consult transport impact assessment, landscape and visual impact assessment Construction - Disruption to business servicing, deliveries and access - Increased congestion and travel times as a result of construction traffic - reduced visibility of businesses, changes to pedestrian/vehicle movements and reduction in amenity - potential impacts to customer and employee car parking from construction worker parking - Loss associated with property acquisition - Positive impact from employment generation (direct and indirect) from project construction Operation - Destruction to servicing, deliveries and access during operation - Impacts on businesses due to changes to pedestrian/vehicle movements and amenity - Potential for additional business opportunities, particularly around	Yes			WAY OF LIFE / PROPERTY RIGHTS / COMMUNITY / HEALTH Construction: Temporary reduction in passing trade, access to businesses for workers/visitors, amenity. Permanent loss of business land for acquisition. Operation: Permanent changes to access and passing trade (positive and negative).	Yes - enter generic title	Yes - fully	Desktop SIA
tural environment?	AIR	particulate matter	Consult air quality impact assessment Construction - Generation of dust associated with spoil, demolition, transportation of materials, exposed surfaces, movement along unsealed routes Operation	Yes		Yes	HEALTH / WAY OF LIFE As in column D	No	Yes - in part	Standard SIA
		gases	Consult air quality impact assessment Construction - Local emissions generated during combustion, handling and storage of fuel Operation	Yes		Yes	HEALTH / WAY OF LIFE As in column D	No	Yes - in part	Standard SIA
	BIODIVERSITY	native vegetation	Consult biodiversity impact assessment Construction - Impacts to threatened ecological communities - Impacts to patched of vegetation comprising potential habitat for threatened flor and fauna species - Impacts to riparian and aquatic habitats associated with creek crossings Operation - Potential for spills and leaks of hazardous materials.	Yes		Yes	SURROUNDINGS / WAY OF LIFE As in column D	Yes - enter generic title	Yes - in part	Standard SIA
		native fauna	Consult biodiversity impact assessment As above Additional construction and operational impacts associated with: - Potential severing of movement corridors - Potential disruption associated with light and noise	Yes		Yes	SURROUDNINGS / WAY OF LIFE As in column D	Yes - enter generic title	Yes - in part	Standard SIA

Social impact assessment (SIA) scoping worksheet for:			Sydney Metro Western Sydney Airport			Date:		30-Apr-20		
			Scoping results from EIS Worksheet			Is there a social impact?		What information will be required to assess the social impact?		
						With regard to the matter expected to be impacted, will				
Social and environmental matters *Click on a matter below for brief description, or refer to full glossary*			Outline of impact *(Auto fill from EIS worksheet)*	Is a material effect on the matter expected? *(Auto fill from EIS worksheet)*	Is there community or other stakeholder concerns regarding the impact or activity? *(Auto fill from EIS worksheet)*	Yes/No *(Select from list)*	If yes, outline the social impact *(Manual entry, if not already covered in column D)* If no, outline why *(Manual entry)*	Are impacts on the matter expected to require a non SIA specialist study? *(Auto fill from EIS worksheet, then manually enter non SIA report type)*	Will the non SIA specialist study address the social impact? *Click on link above for further detail on potential classifications* *(Select from list)*	Level of assessment for the social impact in the SIA *Click on link above for further detail on potential classifications* *(Auto fills)*
What does the proposal mean for the na	LAND	stability and/or structure	Construction - Impacts associated with tunnelling works	Yes		Yes	PROPERTY RIGHTS As in column D	Yes - enter generic title	Yes - in part	Standard SIA
		soil chemistry	Construction - Exposure of acid sulphate soils during excavation could result in the generation of acid which would damage surrounding vegetation and drainage lines. Operation - Potential soil salinity may impact the durability of steel and	Yes		No	PROPERTY RIGHTS	No	No	No SIA required
	WATER	water quality	See hydrology assessment Construction - Discharge from water treatment plants - Exposed soils and other materials could be transported into surrounding waterways - Potential for spills and leaks of hazardous materials - Potential for disturbance of contaminated land - Potential for controlled discharge from after treatment plants Operation - Permanent infrastructure may result in direct sedimentation impacts to watercourses - Potential for spills and leaks of hazardous materials	Yes		Yes	WAY OF LIFE / SURROUNDINGS / PROPERTY RIGHTS	No		
		water availability	Construction - Potential to impact groundwater levels - Potential to redirect surface water and quality - Potential impacts to existing rural dams	Yes			WAY OF LIFE / SURROUNDINGS / PROPERTY RIGHTS	Yes - enter generic title		
		hydrological flows	See hydrology impact assessment Construction - Impacts to groundwater flows and groundwater drawdown during excavation and tunnelling works during construction - Impacts to groundwater quality from spills or the disturbance of existing contaminated land -Impacts to surface watercourses with groundwater connectivity -Impacts to groundwater dependent ecosystems	Yes			WAY OF LIFE / PROPERTY RIGHTS	Yes - enter generic title		

APPENDIX B: COMMUNITY PROFILES

Table B-1 Badgerys Creek community profile

Indicator	Badgerys Creek	Study area	Greater Sydney
Population			
Total population (ABS 2016)	4,031	49,368	4,823,991
Gender Male	48.9%	49.8%	49.3%
Gender Female	51.1%	50.2%	50.7%
Age profile			
Median age	37 years	33 years	36 years
Under 15 years	21.8%	20.6%	18.7%
65 years or older	12.4%	11.9%	13.9%
Cultural Diversity			
Overseas born	30.2%	28.4%	42.9%
Speaks a language other than English at home	42.5%	31%	41.6%
Aboriginal and Torres Strait Islander population	1.3%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3	2.8	2.8
Couple family with children	48%	47.2%	49.5%
Single (or lone) person households	24.2%	22.5%	21.6%
Total households	62	16,186	1,623,880
Dwelling type			
Separate house	100.0%	70.9%	57.2%
Medium density	0.0%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	37.1%	23.9%	29.1%
Owned with a mortgage	14.5%	33.2%	33.2%
Rented	43.5%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,278	-	$1,750
Low income households <$650/ week	16.1%	18.7%	16.8%
Workforce participation[1]	53.5%	69.3%	67.7%
Unemployment rate	4.8%	7.4%	6.0%
Industry of employment (dominant groups)	Agriculture, Forestry and Fishing (25.0%) Construction (12.5%) Wholesale Trade (11.3%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment	4.6%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	26.7%	42%	60%

Indicator	Badgerys Creek	Study area	Greater Sydney
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	12	-	-
People with need for assistance[3]	4.8%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	0.0%	8.7%	11.1%
Households with one vehicle	26.9%	35.5%	37.1%
Households with two motor vehicles	34.3%	30.8%	32.8%
Households with three or more motor vehicles	34.3%	21.0%	15.7%
People who travelled to work by public transport	11.9%	12.8%	22.8%
People who travelled to work by car as driver or passenger	56.8%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-2 Bringelly community profile

Indicator	Bringelly	Study area	Greater Sydney
Population			
Total population (ABS 2016)	2,507	49,368	4,823,991
Gender Male	51.5%	49.8%	49.3%
Gender Female	48.5%	50.2%	50.7%
Age profile			
Median age	39 years	33 years	36 years
Under 15 years	18.3%	20.6%	18.7%
65 years or older	14.3%	11.9%	13.9%
Cultural Diversity			
Overseas born	22.5%	28.4%	42.9%
Speaks a language other than English at home	31.2%	31%	41.6%
Aboriginal and Torres Strait Islander population	1.6%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3.4	2.8	2.8

Indicator	Bringelly	Study area	Greater Sydney
Couple family with children	54.1%	47.2%	49.5%
Single (or lone) person households	11.7%	22.5%	21.6%
Total households	690	16,186	1,623,880
Dwelling type			
Separate house	98.4%	70.9%	57.2%
Medium density	1.0%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	44.7%	23.9%	29.1%
Owned with a mortgage	32.4%	33.2%	33.2%
Rented	19.9%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,700	-	$1,750
Low income households <$650/ week	15.9%	18.7%	16.8%
Workforce participation[1]	66.4%	69.3%	67.7%
Unemployment rate	5.1%	7.4%	6.0%
Industry of employment (dominant groups)	Construction (21.2%) Retail Trade (10.3%) Transport, Postal and Warehousing (10%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.7%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	34.8%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	51	-	-
People with need for assistance[3]	4.8%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	1.9%	8.7%	11.1%
Households with one vehicle	15.8%	35.5%	37.1%
Households with two motor vehicles	30.6%	30.8%	32.8%
Households with three or more motor vehicles	48.5%	21.0%	15.7%
People who travelled to work by public transport	4.9%	12.8%	22.8%
People who travelled to work by car as driver or passenger	68.8%	72.5%	59.8%

Notes:

The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-3 Claremont Meadows community profile

Indicator	Claremont Meadows	Study area	Greater Sydney
Population			
Total population (ABS 2016)	4,776	49,368	4,823,991
Gender Male	49.4%	49.8%	49.3%
Gender Female	50.6%	50.2%	50.7%
Age profile			
Median age	31 years	33 years	36 years
Under 15 years	25.0%	20.6%	18.7%
65 years or older	5.4%	11.9%	13.9%
Cultural Diversity			
Overseas born	25.5%	28.4%	42.9%
Speaks a language other than English at home	25.7%	31%	41.6%
Aboriginal and Torres Strait Islander population	2.8%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3.2	2.8	2.8
Couple family with children	61%	47.2%	49.5%
Single (or lone) person households	11.5%	22.5%	21.6%
Total households	1437	16,186	1,623,880
Dwelling type			
Separate house	93.7%	70.9%	57.2%
Medium density	6.3%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	18.3%	23.9%	29.1%
Owned with a mortgage	60.1%	33.2%	33.2%
Rented	19.4%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$2,075	-	$1,750
Low income households <$650/ week	9.1%	18.7%	16.8%
Workforce participation1	77.8%	69.3%	67.7%

Indicator	Claremont Meadows	Study area	Greater Sydney
Unemployment rate	5.2%	7.4%	6.0%
Industry of employment (dominant groups)	Health Care and Social Assistance (12.2%) Construction (11.5%) Retail Trade (10.6%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.6%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	51.3%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	67	-	-
People with need for assistance[3]	3.2%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	2.8%	8.7%	11.1%
Households with one vehicle	26.6%	35.5%	37.1%
Households with two motor vehicles	44.2%	30.8%	32.8%
Households with three or more motor vehicles	24.4%	21.0%	15.7%
People who travelled to work by public transport	11.6%	12.8%	22.8%
People who travelled to work by car as driver or passenger	78.1%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-4 Erskine Park community profile

Indicator	Erskine Park	Study area	Greater Sydney
Population			
Total population (ABS 2016)	6,436	49,368	4,823,991
Gender Male	49.7%	49.8%	49.3%
Gender Female	50.3%	50.2%	50.7%
Age profile			
Median age	34 years	33 years	36 years
Under 15 years	19.3%	20.6%	18.7%

Indicator	Erskine Park	Study area	Greater Sydney
65 years or older	6.9%	11.9%	13.9%
Cultural Diversity			
Overseas born	24.6%	28.4%	42.9%
Speaks a language other than English at home	24.8%	31%	41.6%
Aboriginal and Torres Strait Islander population	2.2%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3.3	2.8	2.8
Couple family with children	60.4%	47.2%	49.5%
Single (or lone) person households	10.2%	22.5%	21.6%
Total households	1903	16,186	1,623,880
Dwelling type			
Separate house	98.6%	70.9%	57.2%
Medium density	1.4%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	28.2%	23.9%	29.1%
Owned with a mortgage	52.9%	33.2%	33.2%
Rented	16.4%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$2,111	-	$1,750
Low income households <$650/ week	8.6%	18.7%	16.8%
Workforce participation[1]	78.0%	69.3%	67.7%
Unemployment rate	4.8%	7.4%	6.0%
Industry of employment (dominant groups)	Construction (12.6%) Health Care and Social Assistance (11.2%) Retail Trade (10.2%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.3%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	46.5%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	74	-	-
People with need for assistance[3]	3.6%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	1.4%	8.7%	11.1%

Indicator	Erskine Park	Study area	Greater Sydney
Households with one vehicle	19.5%	35.5%	37.1%
Households with two motor vehicles	40.3%	30.8%	32.8%
Households with three or more motor vehicles	36.6%	21.0%	15.7%
People who travelled to work by public transport	8.6%	12.8%	22.8%
People who travelled to work by car as driver or passenger	81.5%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-5 Kemps Creek community profile

Indicator	Kemps Creek	Study area	Greater Sydney
Population			
Total population (ABS 2016)	2,268	49,368	4,823,991
Gender Male	50.3%	49.8%	49.3%
Gender Female	49.7%	50.2%	50.7%
Age profile			
Median age	41 years	33 years	36 years
Under 15 years	17.5%	20.6%	18.7%
65 years or older	18.1%	11.9%	13.9%
Cultural Diversity			
Overseas born	31.9%	28.4%	42.9%
Speaks a language other than English at home	50.0%	31%	41.6%
Aboriginal and Torres Strait Islander population	2.1%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3.4	2.8	2.8
Couple family with children	50.1%	47.2%	49.5%
Single (or lone) person households	11.5%	22.5%	21.6%
Total households	576	16,186	1,623,880
Dwelling type			
Separate house	99.5%	70.9%	57.2%
Medium density	0.5%	18.2%	14.1%
High density	0.0%	10.7%	28.2%

Indicator	Kemps Creek	Study area	Greater Sydney
Housing tenure			
Owned outright	42.0%	23.9%	29.1%
Owned with a mortgage	23.4%	33.2%	33.2%
Rented	30.1%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,468	-	$1,750
Low income households <$650/ week	17.3%	18.7%	16.8%
Workforce participation[1]	66.6%	69.3%	67.7%
Unemployment rate	6.9%	7.4%	6.0%
Industry of employment (dominant groups)	Construction (16%) Retail Trade (11.9%) Agriculture, Forestry and Fishing (11.5%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	2.7%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	34.4%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	30	-	-
People with need for assistance[3]	8.7%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	1.6%	8.7%	11.1%
Households with one vehicle	18.1%	35.5%	37.1%
Households with two motor vehicles	25.9%	30.8%	32.8%
Households with three or more motor vehicles	50.2%	21.0%	15.7%
People who travelled to work by public transport	3.0%	12.8%	22.8%
People who travelled to work by car as driver or passenger	65.3%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-6 Kingswood community profile

Indicator	Kingswood	Study area	Greater Sydney
Population			
Total population (ABS 2016)	9,301	49,368	4,823,991
Gender Male	49.2%	49.8%	49.3%
Gender Female	50.8%	50.2%	50.7%
Age profile			
Median age	34 years	33 years	36 years
Under 15 years	20.8%	20.6%	18.7%
65 years or older	13.1%	11.9%	13.9%
Cultural Diversity			
Overseas born	29.8%	28.4%	42.9%
Speaks a language other than English at home	30.3%	31%	41.6%
Aboriginal and Torres Strait Islander population	4.3%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	2.5	2.8	2.8
Couple family with children	40.0%	47.2%	49.5%
Single (or lone) person households	29.9%	22.5%	21.6%
Total households	3416	16,186	1,623,880
Dwelling type			
Separate house	49.3%	70.9%	57.2%
Medium density	34.6%	18.2%	14.1%
High density	15.8%	10.7%	28.2%
Housing tenure			
Owned outright	18.9%	23.9%	29.1%
Owned with a mortgage	25.9%	33.2%	33.2%
Rented	52.0%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,097	-	$1,750
Low income households <$650/ week	23.5%	18.7%	16.8%
Workforce participation[1]	66.6%	69.3%	67.7%
Unemployment rate	8.5%	7.4%	6.0%
Industry of employment (dominant groups)	Health Care and Social Assistance (15.7%) Retail Trade (11.3%) Construction (8.8%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.6%	0.8%	1.2%
Completed Year 12 or equivalent	43.6%	42%	60.0%

Indicator	Kingswood	Study area	Greater Sydney
(aged 15+)			
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	13	-	-
People with need for assistance[3]	7.5%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	13.3%	8.7%	11.1%
Households with one vehicle	44.9%	35.5%	37.1%
Households with two motor vehicles	26.7%	30.8%	32.8%
Households with three or more motor vehicles	11.1%	21.0%	15.7%
People who travelled to work by public transport	17.2%	12.8%	22.8%
People who travelled to work by car as driver or passenger	67.2%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-7 Luddenham community profile

Indicator	Luddenham	Study area	Greater Sydney
Population			
Total population (ABS 2016)	1,828	49,368	4,823,991
Gender Male	49.3%	49.8%	49.3%
Gender Female	50.7%	50.2%	50.7%
Age profile			
Median age	35 years	33 years	36 years
Under 15 years	23.3%	20.6%	18.7%
65 years or older	10.8%	11.9%	13.9%
Cultural Diversity			
Overseas born	15.0%	28.4%	42.9%
Speaks a language other than English at home	23.3%	31%	41.6%
Aboriginal and Torres Strait Islander population	1.8%	3.8%	1.5%
Families and housing			
Average household size (persons	3.6	2.8	2.8

Indicator	Luddenham	Study area	Greater Sydney
per household)			
Couple family with children	62.1%	47.2%	49.5%
Single (or lone) person households	9.1%	22.5%	21.6%
Total households	463	16,186	1,623,880
Dwelling type			
Separate house	99.3%	70.9%	57.2%
Medium density	0.7%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	31.9%	23.9%	29.1%
Owned with a mortgage	50.6%	33.2%	33.2%
Rented	15.0%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$2,374	-	$1,750
Low income households <$650/ week	9.0%	18.7%	16.8%
Workforce participation[1]	76.9%	69.3%	67.7%
Unemployment rate	2.4%	7.4%	6.0%
Industry of employment (dominant groups)	Construction (19.3%) Retail Trade (11.2%) Manufacturing (8.7%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	1.1%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	39.2%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	82	-	-
People with need for assistance[3]	2.8%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	1.5%	8.7%	11.1%
Households with one vehicle	13.7%	35.5%	37.1%
Households with two motor vehicles	35.9%	30.8%	32.8%
Households with three or more motor vehicles	46.3%	21.0%	15.7%
People who travelled to work by public transport	3.7%	12.8%	22.8%
People who travelled to work by car as driver or passenger	73.8%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-8 North St Marys community profile

Indicator	Erskine Park	Study area	Greater Sydney
Population			
Total population (ABS 2016)	3,921	49,368	4,823,991
Gender Male	49.8%	49.8%	49.3%
Gender Female	50.2%	50.2%	50.7%
Age profile			
Median age	35 years	33 years	36 years
Under 15 years	21.7%	20.6%	18.7%
65 years or older	15.5%	11.9%	13.9%
Cultural Diversity			
Overseas born	24.8%	28.4%	42.9%
Speaks a language other than English at home	26.7%	31%	41.6%
Aboriginal and Torres Strait Islander population	8.6%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	2.7	2.8	2.8
Couple family with children	37.2%	47.2%	49.5%
Single (or lone) person households	24.2%	22.5%	21.6%
Total households	1288	16,186	1,623,880
Dwelling type			
Separate house	96.6%	70.9%	57.2%
Medium density	1.6%	18.2%	14.1%
High density	0.3%	10.7%	28.2%
Housing tenure			
Owned outright	22.6%	23.9%	29.1%
Owned with a mortgage	24.4%	33.2%	33.2%
Rented	48.6%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$929	-	$1,750
Low income households <$650/ week	25.5%	18.7%	16.8%
Workforce participation[1]	59.2%	69.3%	67.7%
Unemployment rate	12.0%	7.4%	6.0%

Indicator	Erskine Park	Study area	Greater Sydney
Industry of employment (dominant groups)	Retail Trade (12.4%) Health Care and Social Assistance (12.3%) Construction (11.7%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	1.2%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	31.0%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	99	-	-
People with need for assistance[3]	10.2%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	13.4%	8.7%	11.1%
Households with one vehicle	37.3%	35.5%	37.1%
Households with two motor vehicles	28.6%	30.8%	32.8%
Households with three or more motor vehicles	14.4%	21.0%	15.7%
People who travelled to work by public transport	13.1%	12.8%	22.8%
People who travelled to work by car as driver or passenger	72.6%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-9 Orchard Hills community profile

Indicator	Orchard Hills	Study area	Greater Sydney
Population			
Total population (ABS 2016)	1,877	49,368	4,823,991
Gender Male	53.3%	49.8%	49.3%
Gender Female	46.7%	50.2%	50.7%
Age profile			
Median age	43 years	33 years	36 years
Under 15 years	15.3%	20.6%	18.7%
65 years or older	16.9%	11.9%	13.9%

Indicator	Orchard Hills	Study area	Greater Sydney
Cultural Diversity			
Overseas born	24.8%	28.4%	42.9%
Speaks a language other than English at home	28.5%	31%	41.6%
Aboriginal and Torres Strait Islander population	1.2%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	3.4	2.8	2.8
Couple family with children	55.9%	47.2%	49.5%
Single (or lone) person households	8.6%	22.5%	21.6%
Total households	532	16,186	1,623,880
Dwelling type			
Separate house	97.0%	70.9%	57.2%
Medium density	2.5%	18.2%	14.1%
High density	0.0%	10.7%	28.2%
Housing tenure			
Owned outright	49.5%	23.9%	29.1%
Owned with a mortgage	30.8%	33.2%	33.2%
Rented	14.0%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$2,072	-	$1,750
Low income households <$650/ week	12.1%	18.7%	16.8%
Workforce participation[1]	70.8%	69.3%	67.7%
Unemployment rate	4.5%	7.4%	6.0%
Industry of employment (dominant groups)	Construction (17.1%) Retail Trade (10%) Health Care and Social Assistance (8.8%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.7%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	40.9%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	73	-	-
People with need for assistance[3]	5.2%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	1.1%	8.7%	11.1%
Households with one vehicle	13.4%	35.5%	37.1%

Indicator	Orchard Hills	Study area	Greater Sydney
Households with two motor vehicles	32.6%	30.8%	32.8%
Households with three or more motor vehicles	49.6%	21.0%	15.7%
People who travelled to work by public transport	5.7%	12.8%	22.8%
People who travelled to work by car as driver or passenger	72.2%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-10 St Marys community profile

Indicator	St Marys	Study area	Greater Sydney
Population			
Total population (ABS 2016)	12,195	49,368	4,823,991
Gender Male	49.6%	49.8%	49.3%
Gender Female	50.4%	50.2%	50.7%
Age profile			
Median age	34 years	33 years	36 years
Under 15 years	20.3%	20.6%	18.7%
65 years or older	12.9%	11.9%	13.9%
Cultural Diversity			
Overseas born	34.0%	28.4%	42.9%
Speaks a language other than English at home	36.3%	31%	41.6%
Aboriginal and Torres Strait Islander population	4.1%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	2.6	2.8	2.8
Couple family with children	39.0%	47.2%	49.5%
Single (or lone) person households	29.0%	22.5%	21.6%
Total households	4290	16,186	1,623,880
Dwelling type			
Separate house	55.1%	70.9%	57.2%
Medium density	25.9%	18.2%	14.1%
High density	18.9%	10.7%	28.2%
Housing tenure			

Indicator	St Marys	Study area	Greater Sydney
Owned outright	19.9%	23.9%	29.1%
Owned with a mortgage	24.5%	33.2%	33.2%
Rented	50.8%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,190	-	$1,750
Low income households <$650/ week	22.6%	18.7%	16.8%
Workforce participation[1]	66.8%	69.3%	67.7%
Unemployment rate	9.4%	7.4%	6.0%
Industry of employment (dominant groups)	Health Care and Social Assistance (13.2%) Retail Trade (11.1%) Construction (10.2%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.8%	0.8%	1.2%
Completed Year 12 or equivalent (aged 15+)	41.2%	42%	60.0%
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	8	-	-
People with need for assistance[3]	8.2%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	12.1%	8.7%	11.1%
Households with one vehicle	43.8%	35.5%	37.1%
Households with two motor vehicles	27.1%	30.8%	32.8%
Households with three or more motor vehicles	11.8%	21.0%	15.7%
People who travelled to work by public transport	16.0%	12.8%	22.8%
People who travelled to work by car as driver or passenger	72.1%	72.5%	59.8%

Notes: The labour force participation rate refers to the proportion of the population aged 15 years and over that was employed or actively looking for work.

[2] The Index of Relative Socio-Economic Disadvantage is derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. A higher score on the index indicates a lower level of disadvantage, while a lower score indicates a higher level of disadvantage. The average Socio-economic Index for Areas (SEIFA) score is 1000 with a higher score indicating a lower level of disadvantage and a lower score indicating a higher level of disadvantage.

[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

Table B-11 Werrington community profile

Indicator	Werrington	Study area	Greater Sydney
Population			
Total population (ABS 2016)	4,031	49,368	4,823,991
Gender Male	48.9%	49.8%	49.3%
Gender Female	51.1%	50.2%	50.7%
Age profile			
Median age	33 years	33 years	36 years
Under 15 years	20.7%	20.6%	18.7%
65 years or older	10.8%	11.9%	13.9%
Cultural Diversity			
Overseas born	30.7%	28.4%	42.9%
Speaks a language other than English at home	29.9%	31%	41.6%
Aboriginal and Torres Strait Islander population	5.1%	3.8%	1.5%
Families and housing			
Average household size (persons per household)	2.5	2.8	2.8
Couple family with children	39.5%	47.2%	49.5%
Single (or lone) person households	29.4%	22.5%	21.6%
Total households	1529	16,186	1,623,880
Dwelling type			
Separate house	43.5%	70.9%	57.2%
Medium density	31.6%	18.2%	14.1%
High density	24.9%	10.7%	28.2%
Housing tenure			
Owned outright	18.5%	23.9%	29.1%
Owned with a mortgage	32.0%	33.2%	33.2%
Rented	46.9%	39.3%	34.1%
Labour force, income and employment			
Median weekly household income	$1,228	-	$1,750
Low income households <$650/ week	21.7%	18.7%	16.8%
Workforce participation[1]	69.0%	69.3%	67.7%
Unemployment rate	9.0%	7.4%	6.0%
Industry of employment (dominant groups)	Health Care and Social Assistance (13.8%) Retail Trade (12.5%) Construction (9%)	Health care and social assistance (12.1%) Construction (12%) Retail trade (11%)	Health Care and Social Assistance (11.6%) Professional, Scientific and Technical Services (9.8%) Retail Trade (9.3%)
Education			
Persons with no educational attainment (aged 15+)	0.7%	0.8%	1.2%
Completed Year 12 or equivalent	45.6%	42%	60.0%

Indicator	Werrington	Study area	Greater Sydney
(aged 15+)			
Levels of disadvantage			
Socio-economic indicators for areas (SEIFA) IRSD percentile NSW[2]	13	-	-
People with need for assistance[3]	6.4%	6.5%	4.9%
Travel behaviour			
Households with no motor vehicles	10.9%	8.7%	11.1%
Households with one vehicle	48.1%	35.5%	37.1%
Households with two motor vehicles	27.1%	30.8%	32.8%
Households with three or more motor vehicles	10.4%	21.0%	15.7%
People who travelled to work by public transport	22.9%	12.8%	22.8%
People who travelled to work by car as driver or passenger	65.6%	72.5%	59.8%

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[3] This data identifies people who report a need for assistance due to a 'profound or severe core activity limitation'. This population is defined as people who need assistance in their day to day lives with any or all the following activities – self-care, body movements or communication – because of a disability, long-term health condition, or old age. Disability statistics help in understanding the prevalence of people who need support in the community.

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