

PLACES OF PENRITH



PENRITH

ST MARYS TOWN CENTRE STRUCTURE PLAN - BACKGROUND EVIDENCE

UNDERSTANDING ST MARYS
NOVEMBER 2022

PENRITH
CITY COUNCIL

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STATEMENT OF RECOGNITION OF PENRITH CITY'S ABORIGINAL AND TORRES STRAIT ISLANDER CULTURAL HERITAGE

Council values the unique status of Aboriginal people as the original owners and custodians of the lands and waters, including the land and waters of Penrith City.

Council values the unique status of Torres Strait Islander people as the original owners and custodians of the Torres Strait Islands and surrounding waters.

We work together for a united Australia and City that respects this land of ours, that values the diversity of Aboriginal and Torres Strait Islander cultural heritage, and provides justice and equity for all.

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The St Marys Town Centre Structure Plan - Understanding St Marys - Background Evidence Report

(this report) provides an environmental, economic and social understanding of the existing conditions of St Marys Town Centre. It provides evidence to inform the vision statement, place outcomes and strategic and spatial directions of the Structure Plan. Serving as the foundation to decision making and sound policy development, this report represents the first stage of a place-based, design-led process that will guide growth and change in St Marys as it develops over the next 20 years.

The summary of this evidence can be found in Chapter 2 of this document, which outlines St Marys' strengths, as well as key issues and opportunities. Combined, these strengths, issues and opportunities provide the framework for the **St Marys Town Centre Structure Plan - Shaping the Future of St Marys Report**.

The content in this report has been informed by stage 1 engagement activities with the community and key stakeholders of St Marys, site observations, desktop analysis and a thorough literature review of existing strategies, plans and studies relevant to St Marys Town Centre.



Fig. 1: St Marys train station

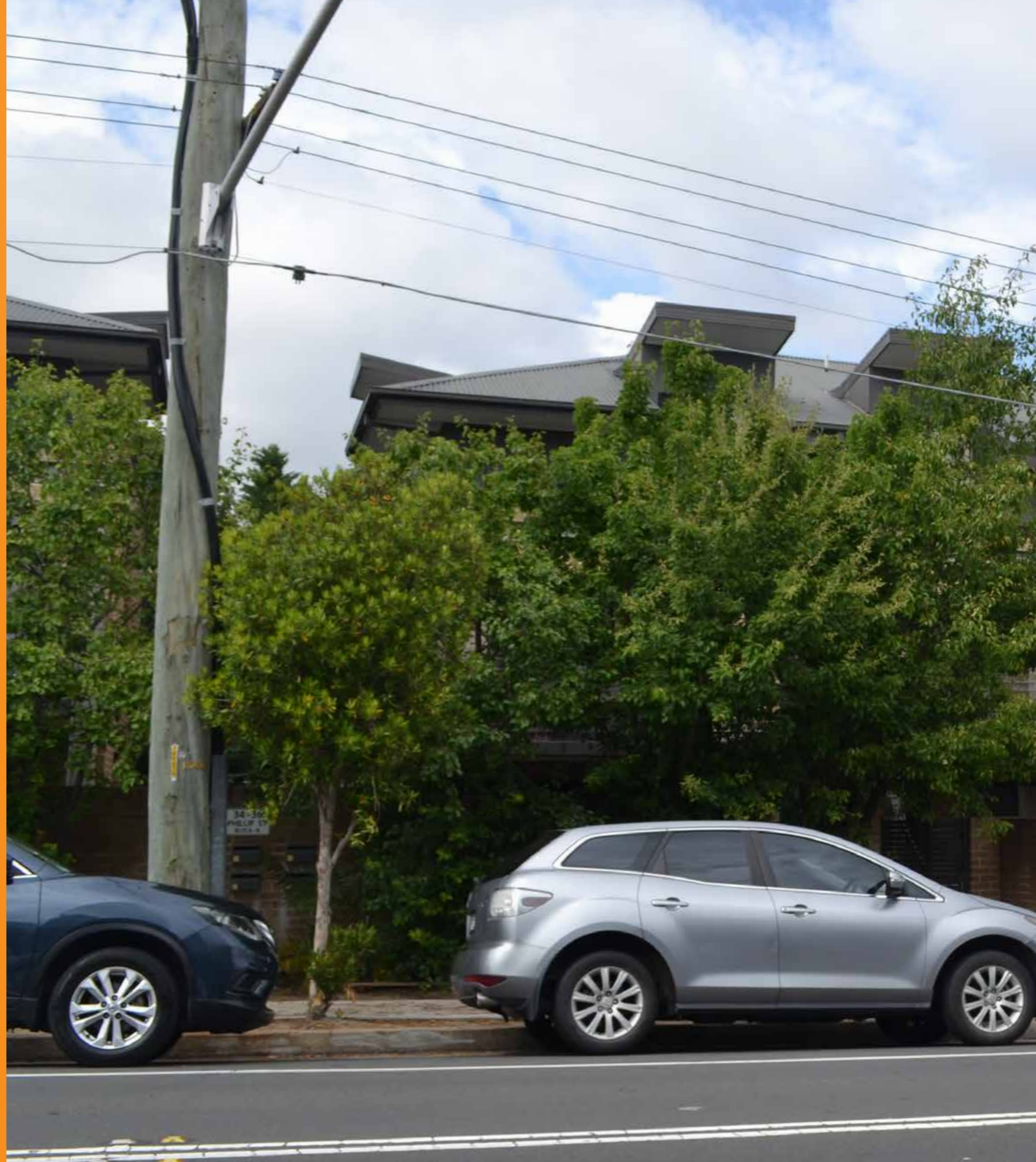


Fig. 2: Queen Street

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UNDERSTANDING ST MARYS





This chapter includes Council's research and analysis of the existing conditions of St Marys Town Centre in relation to a variety of topics - demographics, culture, economy, history, heritage, land ownership, planning controls, community facilities, open spaces, natural environment, housing, built environment and utilities. This comprehensive place-based research together with the findings of Council's stage 1 community and stakeholder engagement form the evidence for the St Marys Town Centre Structure Plan.

THE CENTRE IN ITS CONTEXT

St Marys is a strategic centre in the Western Parkland City that will serve as an interchange between the T1 Western Rail line and the new Sydney Metro Western Sydney Airport line (under construction). It anchors the East-West and North-South economic corridors of Penrith's Economic Triangle.

With the presence of several key regional destinations and thriving businesses and industries, the St Marys Town Centre services a customer catchment of over 45,000 people.

The delivery of a new metro station by 2026 will be the catalyst for sustainable growth, prosperity and investment in St Marys Town Centre.

LOCATION & GEOGRAPHY

St Marys Town Centre (hereby referred as St Marys or Town Centre) is located towards the eastern boundary of the Penrith local government area (LGA). It is one of the two main centres in the Penrith LGA, about 8km from Penrith city centre, 25km from Parramatta CBD and 46km from Sydney CBD.

St Marys is well connected by rail and road infrastructure, especially along the east-west corridor. It is located at the interchange of the T1 Western rail line and the proposed north-south Sydney Metro Western Sydney Airport line, which is currently under construction. Main arterial roads such as the Great Western Highway, Mamre Road and the M4 Western Motorway are easily accessible from the Town Centre.

ROLE OF THE CENTRE

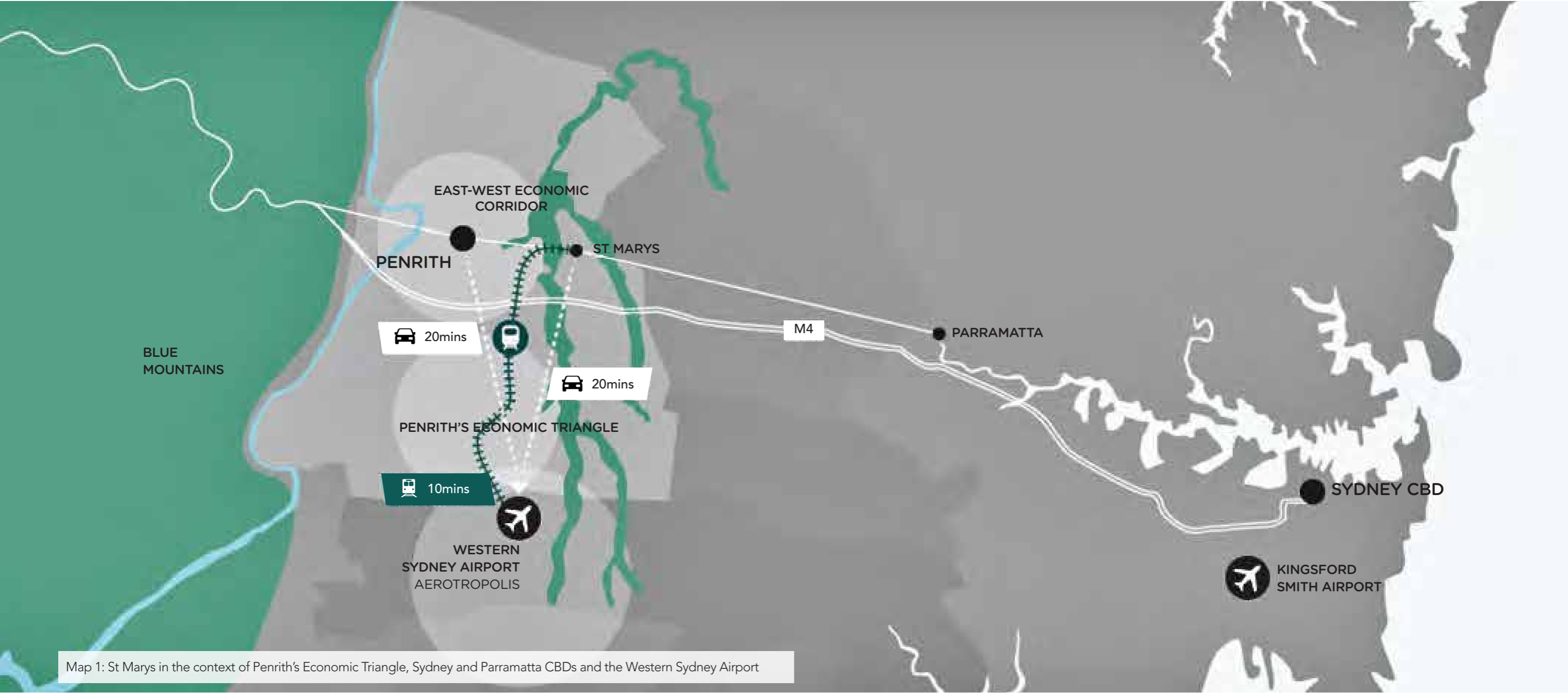
St Marys has been identified within the Greater Sydney Region Plan (2018), the Western City District Plan (2018) as well as Council's Local Strategic Planning Statement (2020) as a strategic centre playing an important role in the future of the Western Parkland City, supporting the growth of Greater Penrith, the Western Sydney Airport and Aerotropolis. St Marys is one of the three apexes of Penrith's Economic Triangle, anchoring the East-West and North-South economic corridors.

With the presence of the South Creek Park, St Marys Corner, Ripples Leisure Centre and Penrith City Council Library, the Study Area has some of Penrith City's key community destinations.

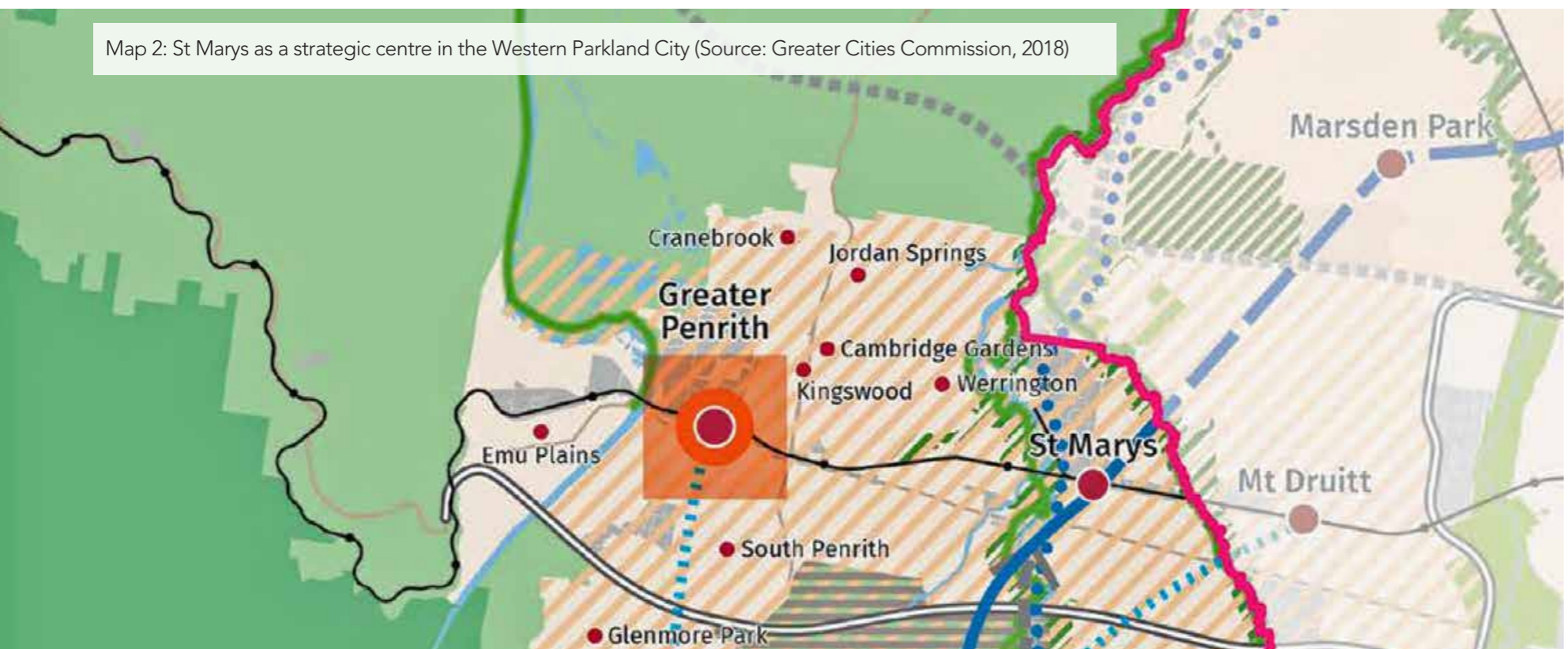
The Town Centre's catchment includes the suburbs of St Marys, North St Marys, Colyton, Oxley Park, Claremont Meadows, Erskine Park and St Clair which have a combined population of 45,418 people (ABS Census 2016). The wider trade area of St Marys overlaps with that of Mount Drutt in the neighbouring Blacktown LGA.

KEY STRENGTHS

- St Marys has existing train connections to other centres
- Investment in the metro line and new station will catalyse local growth and enhance the role of St Marys as a strategic centre
- The community perceives St Marys to have a convenient location and offer ease of access
- The community perceives that St Marys has a lot of services already which offers a great starting point for further growth, compared to other locations along the proposed metro route



Map 1: St Marys in the context of Penrith's Economic Triangle, Sydney and Parramatta CBDs and the Western Sydney Airport



Map 2: St Marys as a strategic centre in the Western Parkland City (Source: Greater Cities Commission, 2018)

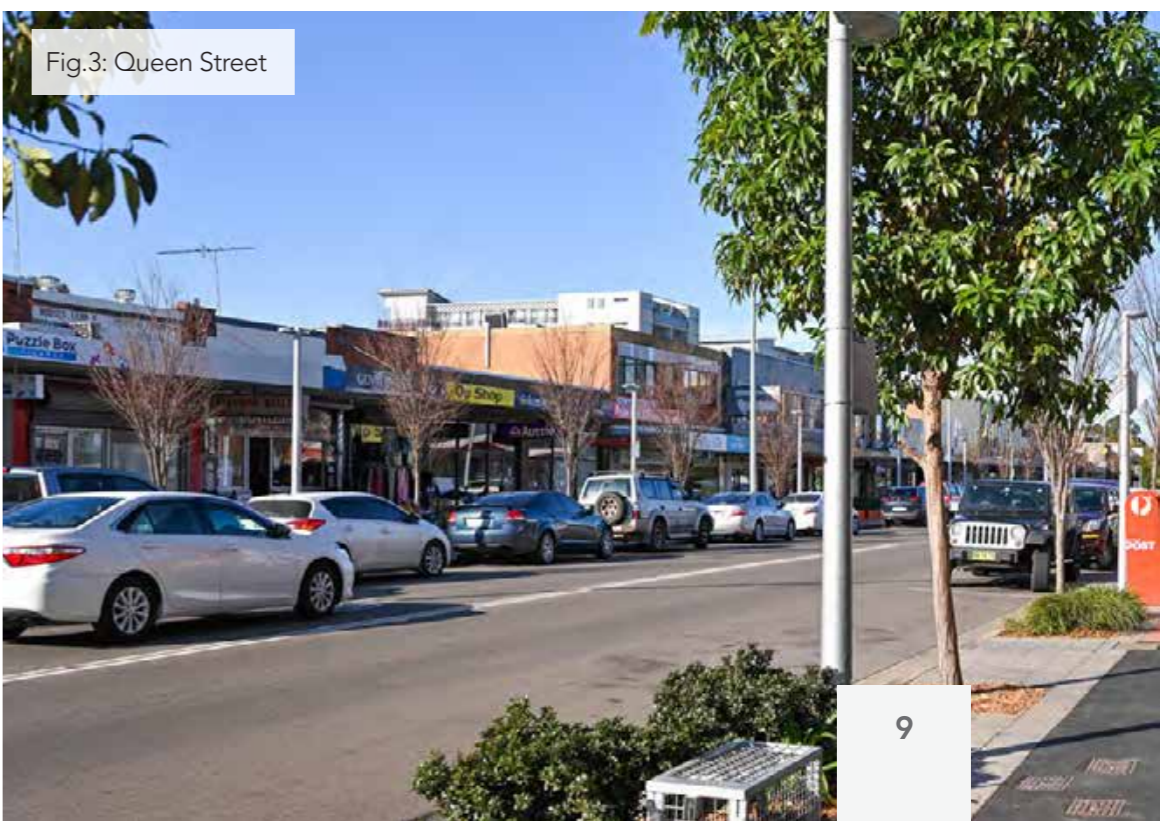


Fig.3: Queen Street

THE CENTRE IN ITS CONTEXT

THE STUDY AREA

The Study Area for the Structure Plan is centred around the St Marys train station and the proposed St Marys metro station (on the Sydney Metro Western Sydney Airport line) along Station Street. It covers approximately 245ha across the suburbs of St Marys and North St Marys.

A large part of the Study Area is the current St Marys Town Centre along Queen Street to the south of the T1 Western rail line. This area comprises service, retail, hospitality and commercial businesses. The Study Area extends eastward up to Australia Street, to the south up to the Great Western Highway, Swanston Street and Putland Street and to the west up to South Creek. The area also incorporates the industrial lands to the north of the train line, extending up to Oleander Road in North St Marys.

Aside from the train station, the Study Area has a variety of key destinations including supermarkets, a couple of schools, civic and recreational facilities and open spaces.

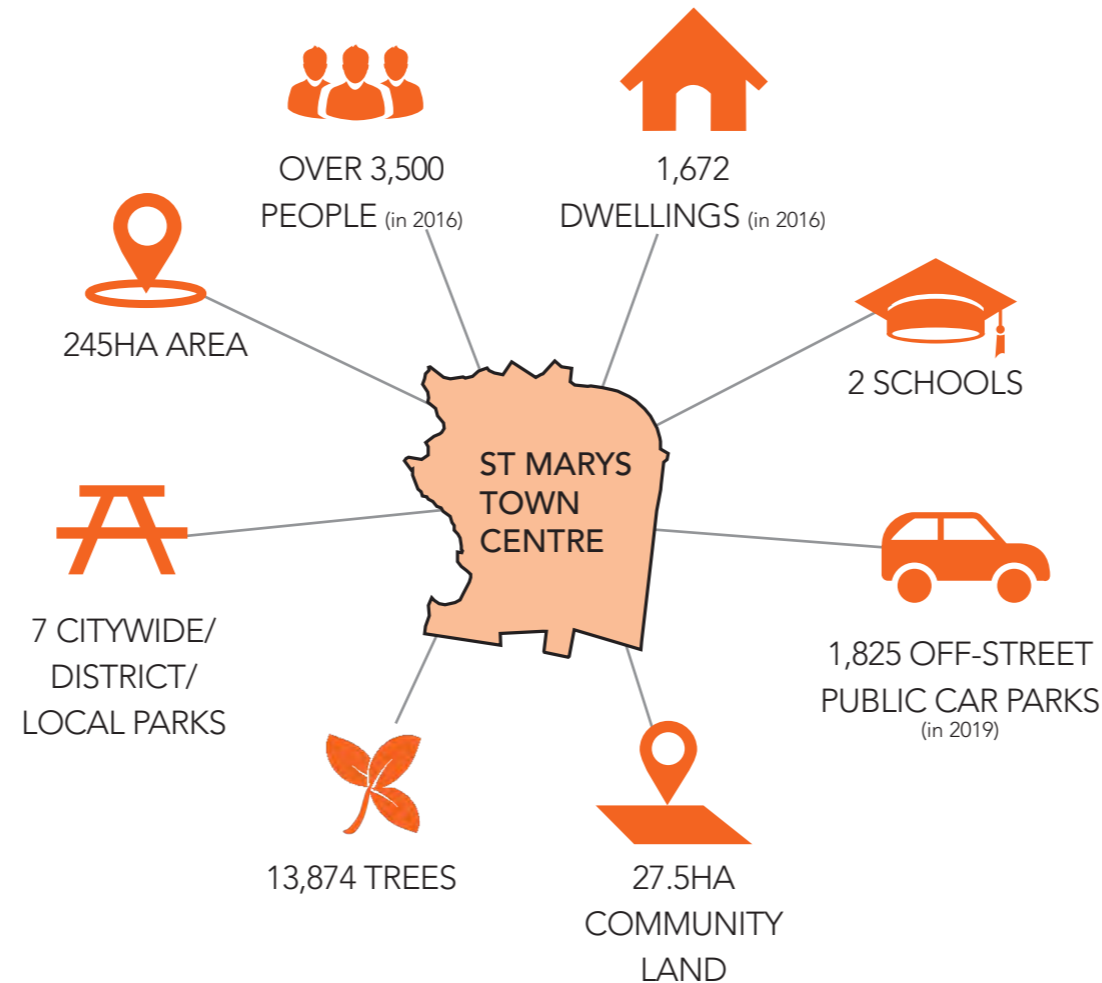










Fig. 4: Place Snapshot of the Study Area
(Note: This information applies to the Study Area boundaries only; not the wider suburb of St Marys. The information related to population and dwellings is from Census 2016)



Map 3: St Marys Structure Plan Study Area Extents

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space (Park/ Plaza/ Green Open Space)
-  Waterbody
-  Existing Public Car Parking
-  Future Outer Sydney Orbital Corridor
-  Land Parcel

0 200 m

OXLEY PARK
PUBLIC
SCHOOL

PEOPLE & CULTURE

Approximately 3,538 people resided within the extents of the Study Area in 2016 (Source: Atlas.id.com.au).

CURRENT DEMOGRAPHICS

Compared to Penrith LGA the current community has:

- larger proportion of 'young workforce' and 'seniors' and a smaller proportion of 'high schoolers and parents and home builders'
- larger proportion of Aboriginal and Torres Strait Islander people
- larger proportion of people who were born overseas
- higher proportion of lone person and one parent families, with significant growth in couples with children
- more households in the lowest and medium lowest income quartiles, and less households in the medium highest and highest income quartiles
- higher proportion of people with lower levels of education and higher levels of unemployment
- larger population of households living in social housing
- higher proportion of people in housing stress
- higher use of public transport to travel to work

WHO ARE WE?*



Approximately 3,538 people living in the Study Area (St Marys Town Centre)

Average population density of **24.5 persons/ha**



Median age of 35 compared to the LGA median age of 34

14.34% people aged 65 and over compared to 11.7% across the LGA

20.29% people aged under 18 compared to 11.75% across the LGA



4.06% Aboriginal and/or Torres Strait Islander people compared to 2.9% across the LGA



36.07% people born overseas compared to the LGA average of 21.6%

27.21% non English-speaking households compared to 16.8% across the LGA



9.25% people need assistance due to disability compared to 5.2% of the population across the LGA

HOW DO WE LIVE?*



Approximately 1,540 households in the Study Area

2.3 people per household compared to a household size of 2.9 people per household across the LGA



15.97% households comprised of couples with children compared to a much higher LGA average of 37.2% couple families with children

35.45% lone person households compared to 18.2% across the LGA



10.26% households owning homes outright compared to 24.8% across the LGA

13.05% households renting social housing compared to 4.4% across the LGA

47.01% households renting privately compared to 24% across the LGA



25.65% households in housing stress

37.46% households in rental stress

WHAT WORK DO WE DO?*



17.18% professionals and managers, 16.33% labourers and 12.87% technicians & trades workers



Median weekly household income \$963 in the Study Area compared to \$1,658 across the LGA

Average SEIFA index 823.5 compared to 999 in the LGA



12.76% unemployed people compared to 5.7% across the LGA

*Aggregated 2016 Census data for SA1 areas within the Structure Plan Study Area boundaries, sourced from .ID Social Atlas. Updated data from the 2021 Census will be incorporated into the Master Plan for St Marys Town Centre.

PEOPLE & CULTURE

HOW DO WE TRAVEL?*



59.54% people take the car to work compared to 71.4% across the LGA

18.5% households without a car compared to 5.8% across the LGA



22.69% people take public transport to work compared to 11.4% across the LGA



3.35% people walk (only) and minimal bike to work compared to 1.4% and 0.2% respectively across the LGA

WHERE DO WE TRAVEL TO/FROM?

Percentage of Residents	Place of Work of Residents of St Marys - North St Marys (SA2s)
14.27%	St Marys - North St Marys
4.77%	Prospect Reservoir
4.72%	Penrith
4.15%	Sydney - Haymarket - The Rocks
4.12%	Parramatta - Rosehill
3.67%	Rooty Hill - Minchinbury
3.40%	Blacktown (East) - Kings Park
2.50%	Erskine Park
2.47%	Mount Druitt - Whalan



Table 1 and Fig. 5: Places of work of residents of St Marys - North St Marys SA2 (Source: ABS, 2016)

Percentage of Workers	Place of Residence of Workers of St Marys - North St Marys (SA2s)
9.41%	St Marys - North St Marys
5.86%	St Clair
4.70%	Kingswood - Werrington
4.45%	Castlereagh - Cranebrook
4.39%	Cambridge Park
4.16%	Lethbridge Park - Tregear
3.43%	Colyton - Oxley Park
3.11%	Glenmore Park - Regentville
2.76%	Bidwill - Hebersham - Emerton
2.50%	Mount Druitt - Whalan



Table 2 and Fig. 6: Places of residence of workers of St Marys - North St Marys SA2 (Source: ABS, 2016)

*Aggregated 2016 Census data for SA1 areas within the Structure Plan Study Area boundaries, sourced from .ID Social Atlas. Updated data from the 2021 Census will be incorporated into the Master Plan for St Marys Town Centre.

PEOPLE & CULTURE

HOW DO WE SPEND TIME IN THE TOWN CENTRE?



Fig. 7: Queen Street is a busy movement spine and lingering space with places to pause. The seating, planting and art along the street are well respected



Fig. 8: The local community popularly uses Coachmans Park for socialising, busking and events. The cafe nearby is locally popular and offers outdoor dining



Fig. 9: Different communities use open spaces differently. Some members are known to gather in open spaces after work, others use them in the day



Fig. 10: Pedestrian count data in St Marys shows higher footfall in the centre on weekends compared to Penrith CBD



Fig. 11: Events such as St Marys Lights Up (May 2022) attracted several families to the Town Centre (Source: St Marys Town Centre Corporation)



Fig. 12: Some businesses in the Town Centre contribute to improving shopfront appeal



Fig. 13: St Marys has a predominantly takeaway food culture with few businesses offering outdoor dining or trading



Fig. 14: On-site observations indicated that some open spaces could be enhanced in terms of amenity, surveillance etc. to improve activation and use



Fig. 15: There seems to be a culture of high car dependency with the majority of shopping centres within and around the centre accessed by car

In the stage 1 engagement, the community raised some concerns around safety in the Town Centre. This is related to the day and night safety mostly around the train station, an overall feeling of safety at night, including Queen Street, Coachmans Park and nearby streets, and anti-social behaviour and illicit drug use.

The St Marys Night Time Economy Audit & Study (2019) included the 2018 NSW Bureau of Crime Statistics (BOCSAR) data. This indicated that St Marys has a high frequency of recorded non-domestic assault incidents, which are predominately concentrated in and around the railway station and just to the south of the intersection of the Great Western Highway and Queen Street. Data in this report also revealed that the centre is a reported hotspot for incidents related to malicious damage to property and robbery. Mapping associated with the same can be found in the St Marys Night Time Economy Audit & Study (2019) report.

It should be noted that much of Queen Street and adjacent streets (including Coachmans Park) are designated alcohol-free public spaces (under the Local Government Act) which assist police in responding to and managing alcohol consumption in public spaces and any associated anti-social behaviour. The length of Queen Street has had CCTV cameras installed over recent years under a federally funded grant program, to support public space safety through improved surveillance.

PEOPLE & CULTURE

KEY STRENGTHS

- An established and growing population
- Rich diversity of the community in terms of ages, ethnic/ cultural and linguistic backgrounds contributing to the social richness of the area
- A strong business community with long-standing established family owned service businesses and culturally specific small businesses
- The community feels a sense of personal belonging and connection to the place
- The community perceives the centre to have a communal and welcoming village atmosphere and a vibrant, youthful, non-homogeneous and unique place experience
- Investment in art, seating and planting along Queen Street has been well-received and respected by the community
- The community values and participates in community events

KEY CHALLENGES

- Variety of indicators that lead to lower levels of household income including: housing stress, higher rates of unemployment, higher rates of disability
- Lower resilience of the community to stresses, shocks and disasters
- Large proportion of people with lower levels of education
- Higher percentage of housing/ rental stress
- Perceived and real lack of safety in the centre. The community expressed concerns around safety across day and night around the train station, lack of safety at night, including Queen Street, Coachmans Park and on nearby streets; and anti-social behaviour and illicit drug use



Fig.16: Activation during the St Marys Lights Up event, 2022 (Source: St Marys Town Centre Corporation)

EXISTING PRECINCTS

St Marys Town Centre is comprised of several precincts. From the industrial lands to the north of the rail corridor and retail focussed areas along Queen Street to the educational and recreational areas in the west and residential areas in the east, the Study Area has diverse zones with distinct characteristics. Different components of 'place' such as land form, open spaces, movement networks, built form and land uses define the place character of these areas.

Eleven existing precincts have been identified within the St Marys Town Centre Study Area (refer to Map 4). A brief description of the existing character of each is outlined below. Further information on the components that form part of the character of each precinct can be found in the subsequent sections of this report.

1. TRANSPORT INTERCHANGE

This precinct includes the St Marys train station and bus interchange. It has an existing plaza fronting Station Street, the heritage listed St Marys Railway Station Group, places to sit and trees. The high points of this precinct (along the existing railway overbridge) enjoy views to the Blue Mountains as well as vistas along Queen Street.

2. HIGH STREET

The high street precinct is characterised by low-scale buildings with fine grain retail frontages, generally wide footpaths with awnings and places to sit in the public domain. It is anchored by key destinations. Queen Street has a mix of retail, hospitality and service businesses and a few commercial businesses. It is flanked by East Lane and West Lane, serving an important service and delivery function for the shops along Queen Street. Beyond that are extensive stretches of off-street surface car parking. The precinct also includes the Lang and Kokoda Parks, which are disconnected from Queen Street. Opportunities exist to reconsider the area around the parks as

part of the main street, better connecting to it physically and visually. The high street precinct has three distinct zones:

- The northern zone (area to the north of Belar Street) is anchored by the train station and St Marys Hotel. This zone has quite a few vacancies and buildings with inactive frontages. Its public domain promotes movement over 'place' functions.
- The central zone (area between Crana Street and Belar Street) is anchored by Coachmans Park. The precinct has retail uses and a cluster of commercial businesses. It features wide footpaths, distinct landscaping and comfortable and engaging places to sit, meet and linger in the public domain.
- The southern zone (area to the south of Crana Street) is anchored by the St Marys Library. This precinct has predominantly service and commercial businesses as well as hospitality venues focussed around food takeaway. Parts of this precinct have narrow footpaths and limited places to sit.

3. LARGE FORMAT RETAIL

The Study Area has one major shopping centre - the St Marys Village shopping centre. This is a key anchor within St Marys Town Centre, but is an internalised development with limited public domain activation. The shopping centre site is constrained by challenges associated with overland flooding.

4. DURATION COTTAGES

The area between St Marys Senior High School, Charles Hackett Drive and Queen Street has historic Duration Cottages on small lots around a central park, built in 1942. A recent heritage investigation of this precinct found its subdivision pattern including the central Jack Jewry Reserve to be remarkably intact. However, the study concluded that the Duration Cottages do not reflect the characteristics that would warrant their listing as heritage items or the establishment of a Heritage Conservation Area for the precinct.*

5. EDUCATION

The Study Area has two education precincts occupied by the St Marys Senior High School and the heritage listed St Marys Public School respectively. Both these precincts have large blocks without accessible through-site links. This poses a challenge from the perspective of east-west pedestrian connectivity between South Creek and the high street. The public school precinct has a good amount of tree cover. Council has initiated discussions with the NSW Department of Education regarding the capacity of existing schools in St Marys Town Centre. Further analysis will be required to be undertaken by the NSW Government to ensure that the growth of St Marys is supported by adequate school infrastructure.

*Detailed findings of the recent heritage investigation of Duration Cottages can be found in the 'Duration Cottages Heritage Investigation Report'

EXISTING PRECINCTS

6. SOUTH CREEK PARK

This precinct is defined by South Creek and various specialist sporting facilities. It has existing threatened ecological species and native vegetation. A significant part of the precinct is impacted by 1% Annual Exceedance Probability (AEP) and 5% AEP flood events.

Although a major natural asset to St Marys and its wider surroundings, this precinct is poorly accessible from the main street on foot and turns its back onto the Town Centre due to adjoining land uses.

7. HIGHWAY COMMERCIAL & ENTERTAINMENT

Located along a busy vehicular movement corridor, this precinct has a number of key destinations such as the St Marys Corner Community & Cultural Precinct, St Marys Band Club, Astley Centre, Aldi supermarket, Victoria Park, a few hotels and community service providers. It is focussed on servicing the communities to the south of the highway. The highway is a major barrier dissecting either sides of this precinct and their surroundings.

8. PARK LIVING

This precinct is centred around Bennett Park. It has low to medium density dwellings which enjoy great amenity associated with the park and exceptional views to the Blue Mountains.

9. RIDGE-TOP LIVING

This precinct is located between the high point along Glossop Street and the high street precinct. It has two linear green open spaces, two underused triangular shaped open spaces and a mix of low to medium density dwellings. The majority of public social housing in St Marys Town Centre is located in this precinct and is owned by the NSW Government Land & Housing Corporation (LAHC).

10. GLOSSOP STREET

This precinct is located along the central spine of Glossop Street and includes low to medium density dwellings. Glossop Street is a major movement and freight corridor which impacts the amenity and liveability of the residential uses along the road.

11. DUNHEVED BUSINESS PARK

This precinct includes the areas to the north of the rail corridor. It is a major source of economic output in the Penrith LGA and surrounds, including almost 920,000sqm of industrial floorspace and a smaller component of large format retail floorspace.

It has thriving small-scale industries as well as retail, service and commercial businesses. The precinct is punctuated by Little Creek that runs east-west in the form of a drainage canal. It lacks formal through-site linkages for pedestrians, open spaces and shade.

12. AREA IN TRANSITION

This precinct includes the former Station Plaza shopping centre (now closed) which had a Coles supermarket, and the former Veness Place car park. Both of these sites have been acquired by Sydney Metro. In place of the Veness Place carpark is now a temporary off-street bus interchange. This area will see significant transition in the future with the arrival of the new metro station.



Map 4: Existing Precincts

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Waterbody
- Transport Interchange
- High Street
- Duration Cottages
- Large Format Retail
- Education
- South Creek Park
- Highway Commercial & Entertainment
- Ridge-top Living
- Park Living
- Glossop Street
- Dunheved Business Park
- Area in Transition
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL



Fig.17: Area near the St Marys train station

ECONOMY & EMPLOYMENT

St Marys Town Centre is a strategic centre and one of two main centres in the Penrith LGA. Its economic base comprises of two distinct employment areas - the thriving high street and shopping centres to the south of the T1 Western rail line - and a vital industrial area to the north of the rail line that serves the wider LGA and wider Sydney region. The Study Area offered 3,522 jobs in 2016.

The Western City District Plan recognises the strategic location of St Marys and envisages it as a diverse and innovative mixed-use centre with an active night time economy. It is expected that investment in transport infrastructure such as the Sydney Metro Western Sydney Airport line will catalyse economic growth in St Marys.

ST MARYS TOWN CENTRE SOUTH

St Marys Town Centre South is the area to the south of the train line, comprising of Queen Street retail, a big box shopping centre and the enterprise corridor to the south of the Great Western Highway.

CURRENT ROLE OF THE TOWN CENTRE SOUTH

St Marys Town Centre South has a primarily localised, retail-orientated role that supports a catchment of around 45,000 people (ABS Census 2016). It plays a supplementary role to both the Penrith and Mount Druitt CBDs which have a more comprehensive retail offering. Established and emerging centres including Penrith, Mount Druitt, Blacktown, Marsden Park and the Aerotropolis have been identified as potential competitors for St Marys.

The North-South Corridor Study (2021) identified that St Marys Town Centre currently has only around 8,600sqm of commercial space. The existing commercial space is typically aged, single storey buildings with interest generally limited to price conscious occupiers (e.g. non-governmental organisations).

Council's Employment Lands Strategy (ELS, 2021) identifies the need to preserve and allow for sufficient commercial space in St Marys to accommodate growth and diversity of employment. It directs investigating the demand and capacity for co-working spaces, business hubs and

decentralised government agency working spaces in the Town Centre. Safeguarding employment floorspace is a priority for St Marys Town Centre to ensure long term economic viability for workers and visitors. Mixed use zoning in a large part of the Town Centre, coupled with an LEP amendment mandating retail and commercial development on the ground and first floors of the urban core, will help to ensure that these uses are provided. As per the Penrith Employment Land Use Study (2020), accommodating additional business floor space in St Marys will require redevelopment of existing sites given that there are few vacant sites available.

With residential growth comes a demand for a more diverse economy with a spread of activities that extends into the evening. A night time economy audit conducted by HillPDA in Nov-Dec 2018 (on a Thursday, Friday and Saturday, 4pm-10pm) found that out of 178 businesses along the main street in St Marys Town Centre, 53 were linked to night time economy. The study identified some night time economy clusters with high evening patron activity, around St Marys Hotel, the area between Belar Street and Charles Hackett Drive and the western side of Queen Street - south of Crana Street.

There is a desire within the local community for a night time offering in the Town Centre, evidenced by high visitation to events such as St Marys Lights Up in May 2022. However, there are opportunities to improve the night time offering and build upon the existing night time clusters to enhance

the vibrancy and attractiveness of St Marys Town Centre at night.

ECONOMIC RESILIENCE

Main streets have been facing rising competition from e-commerce. COVID-19 has made this trend more challenging. The industry mix in St Marys (retail, hospitality based) made the centre more exposed to the impacts of COVID-19, showing a slower recovery rate than other Penrith LGA suburbs.

It will be important from a resilience point of view that there be a diversity of businesses in the Town Centre offering more than just convenience. Queen Street offers opportunities for creative industries (makerspaces, artists' studios, etc.) and commercial office spaces to improve the business diversity and sustainability of the centre.

The renewal of centres is often associated with increasing property prices and rents, and subsequently the displacement of businesses due to rental stress. It is important to acknowledge this possibility and develop ways for mitigating the negative aspects of change.

ECONOMY & EMPLOYMENT

ST MARYS TOWN CENTRE NORTH (INDUSTRIAL PRECINCT)

As important as the Town Centre South, the industrial precinct to the north of the railway line - the Dunheved Business Park - is one of five primary industrial precincts in Penrith LGA. It is the LGA's largest established industrial precinct comprising around 281ha of general industrial land in total. A small part of the same is within the Study Area boundaries.

CURRENT ROLE OF THE INDUSTRIAL LANDS

The industrial precinct includes almost 920,000sqm of industrial floorspace and a smaller component of large format retail floorspace (c. 43,500sqm). It is well buffered from surrounding uses, enjoys the locational advantage of proximity to major roads and the St Marys train station and has a mix of large regional manufacturers as well as small and medium sized enterprises. Council's adopted ELS identifies that existing industrial precincts closer to the centres of Penrith and St Marys provide higher job density and greater business diversity compared to larger scale industrial precincts like Erskine Park.

As per the North-South Corridor Study (2021), the wider industrial precinct offers over 5,600 jobs, with an employment density of around 23 jobs/ha. The industrial precinct is thus a major source of economic output in the Penrith LGA and should be retained.

In December 2021, the industrial precinct saw the commencement of operations of the Pacific National Freight Hub (Intermodal) which is a State Significant Development project. This inland container terminal transports shipping containers by rail between Port Botany and St Marys. The operations of the Intermodal will result in an increased truck movement in its surroundings. This is discussed in the chapter on Movement under the 'Freight Movement' section.

AMENITY OF THE INDUSTRIAL LANDS

The level of amenity for workers is relatively low in the Dunheved Business Park in North St Marys, in terms of provision of services and an attractive public domain. The industrial precinct lacks permeability for pedestrians due to a lack of dedicated through-site links. The connectivity across the rail line also needs improvement, particularly for people using bikes, wheelchairs and mobility devices.

The ELS states that employee amenity is a critical selection factor for many businesses, especially for those in the knowledge-based sectors. It identifies the need to rejuvenate old industrial precincts with degraded buildings and streetscapes and upgrade infrastructure to make them more attractive as a place to work.

This includes adding street landscaping and improving the pedestrian and bicycle connections to public transport, recreational

facilities and open space to provide better safety, directness and attractiveness. The ELS also identifies the need for separated infrastructure for cyclists in industrial areas where there is a high volume of heavy vehicles. For Dunheved Business Park in North St Marys, such investments will make the precinct more attractive to a range of new industries and provide health and wellbeing benefits for workers.

Improvements to public domain amenity in the industrial area will need to mitigate the impacts of heavy vehicle movements. It is equally important that heavy vehicle access routes are kept away from residential areas and upgraded to reduce safety risks and lower noise impacts for communities.

KEY STRENGTHS

- Investment in public transport offers economic growth opportunities
- Existing Town Centre offers around 3,500 jobs
- Strong business community with long-standing established family owned service businesses, some of which are destination places
- Industrial uses to the north are complementary to the Town Centre
- Variety of small shops, particularly along the main street
- Opportunity to improve local employment levels

KEY CHALLENGES

- Low percentage of commercial office space in the Town Centre
- Night time economy could improve
- Low provision of outdoor dining
- Neighbouring centres such as the Penrith CBD, Mount Druitt, etc. are competitors for St Marys

HISTORY & HERITAGE

St Marys is a well established centre with a multi-layered history. As a place on the banks of Wianamatta - South Creek, St Marys has great significance for the Aboriginal and Torres Strait Islander community. European colonisation in the area began in early 1800s and had detrimental outcomes for the local Aboriginal community. St Marys emerged as a small urban centre in the mid-nineteenth century. It became the centre of various industries in the subsequent times, which contributed significantly to the growth of the whole Penrith LGA. Today, a few heritage items remain in the Study Area, most concentrated around the highway to the south of the town centre.

ABORIGINAL AND TORRES STRAIT ISLANDER HISTORY

St Marys sits on the banks of Wianamatta - South Creek. It is Wianamatta Country, nestled within two vital waterways, South Creek and Ropes Creek. For millennia, this type of confluence has been vital in the cultural and ceremonial lives of local Aboriginal people, providing essential connections to Country and community that were established thousands of years ago and are still intact today.

Aboriginal people of St Marys have a rich and vibrant cultural heritage. The community traditionally operated to ensure the wellbeing of Country and community. There were particular roles for men and women, with everyone shared the responsibilities to Country.

Various groups frequently visited camp sites along the creek and used home and community structures commonly referred to as Gunyahs. Aboriginal people would access ochre from local sites for cultural ceremony and attire. The community would also keep a collection of animal fur/skins for ceremonial purposes as well as casual attire.

The water story of occasional flooding across South Creek is a vital part of the eel migration story, and protecting the local South Creek area. The opportunity now exists to honour the Aboriginal history and culture of this place that has been shaped by the presence of fresh water, and its sacred ceremonial spaces, through design.

St Marys has a number of Aboriginal heritage and culturally significant sites. A large portion of these significant sites can be identified near existing and pre-existing ridges and creeks. A number of Aboriginal walking trails, trade routes and songlines exist as key corridors. The journey from west to east has always facilitated the movement of people from the fresh water, forest Country of the Nepean River to the brackish and salt water coastal areas further east, providing opportunities for trade, ceremony and kinship responsibilities with saltwater and brackish water peoples.

Elevated locations with views to the Blue Mountains were also important spaces, that now only survive in the westerly aspects along street corridors from the ridge. Protecting these view corridors and limiting development that would further encroach on these important views will be important for the future St Marys Town Centre Master Plan to address.

HISTORY & HERITAGE

POST SETTLEMENT HISTORY

From 1804, the region experienced radical transformation after Governor King made a series of land grants along South Creek -Wianamatta – including grants to his own family (Dunheved), Samuel Marsden (Mamre), and Mary Putland/O’Connell (Frogmore). Settlement of the area began with the partial subdivision of the O’Connell Estates into town allotments and fields.

The township’s proximity to the creek and its rich alluvial soils ensured that the large estates became working holdings. Dunheved was one of the largest estates in the colony and harvested grain, developed orchards and bred pigs, sheep, horses, and cattle. It employed 80-100 workers.

St Marys emerged as a small roadside urban centre in the mid-nineteenth century, keeping pace with Penrith until the railway was completed. The township was originally named South Creek and became St Marys after the church of St Mary Magdalene was consecrated in 1840. It is one of the few townships in the world named after a church.

The construction of the railway station in 1863 brought the first of the local industries to St Marys. It became the centre of two important industries - tanning and wagon building. Tanning continued for about a hundred years with peak output reached in the late 19th century. In the 1920s, the industry began to move to the Botany industrial area. St Marys was home to ‘G and J Bennett’, the legendary wagon

builders of NSW (1858-1958). Bennetts wagons were popular across Australia and regarded as the best heavy transport wagons on the market. By the end of the 19th century, the Town Centre moved from the Great Western Highway to Queen Street and the area transformed as a part of general redevelopment and road widening.

Being on a railway line with convenient access to Sydney’s network of industry, but removed enough to offer a measure of seclusion, St Marys was chosen as the site for the manufacture of ammunitions during World War II. There were around 3,500 people employed making explosives. The industrial area was located north of the railway and was serviced by a branch line to Dunheved and Ropes Creek Stations.

An area west of Queen Street was set aside for temporary cottages on small allotments to house some of the labour force. These houses remain, and are called ‘Duration Cottages’. The former Housing Commission (now NSW Land and Housing Corporation) erected a number of houses on the eastern side of Queen Street.

In the post war period, the Commonwealth-owned factory buildings were at first leased cheaply to industrial firms. The industrial mix attracted was from the start noted for its diversity, with large engineering works balanced by small manufacturers. By 1950, some 94 firms were in business at St Marys with a work force of 2,500 people. The industrial development at St Marys was

crucial to the growth and expansion of the whole Penrith LGA in the following four decades.

In the early 1990s the NSW Government funded the bus/rail interchange and the easy access upgrade of St Marys train station. Council upgraded Queen Street and sealed the adjacent car parks.



Fig. 18: 1904 map of the country between Penrith, Camden and Liverpool (Source: National Library of Australia)

HISTORY & HERITAGE

HERITAGE ITEMS

The St Marys Town Centre Study Area contains nine items of heritage significance listed in Schedule 5 of the Penrith Local Environmental Plan (LEP) 2010 (refer to Map 6). These items make a significant contribution to the cultural, historic and aesthetic values of St Marys. A brief description of some of these items is provided below. More information can be found in Penrith LEP 2010 Schedule 5 and the NSW Heritage Inventory.

ST MARYS RAILWAY STATION GROUP

The listing includes the station building, goods shed, signal box, crane and footbridge substructure. The Station Group is of state significance as an early station opened in the 1860s when the Great Western Railway was extended from Parramatta, and for the role it played in handling the increased traffic for the American ammunition and general store built at Ropes Creek during World War II.

The station, in particular the signal box, has strong associations with the operations of the once important rail system to Dunheved and Ropes Creek, and with the development of local industry and residential expansion of St Marys after 1942. The place has research and technical potential for its ability to provide evidence on the construction techniques and operational system of the NSW Railways in the 1880s and during the World War II period.

ST MARY MAGDALENE ANGLICAN CHURCH, HALL, CEMETERY AND GROUNDS

The St Mary Magdalene church demonstrates early nineteenth century rural settlement in the region. This picturesque Gothic style church was erected in 1837. The setting of the church is enhanced by clusters of palms, a graveyard, and former school hall. The church and cemetery are some of the oldest in the region and have historic associations with a number of local landholders such as the King and Lethbridge families and members of the Anglican Church. Its cemetery has many impressive headstones marking the passing of significant characters in Australia's early colonial history.

VICTORIA PARK AND MEMORIAL

Victoria Park was built in 1842 and was the first and only public space in the historic town of St Marys. The park demonstrates both nineteenth century town planning ideals and the impact of the First World War on the small town community of St Marys. The park was enlarged in 1892 and also includes the rotunda completed in 1922 as a war memorial. The role of the park as a memorial to past national conflicts connects it to numerous generations of local people. The park continues to provide the focus for the community's commemoration of the sacrifice of war and also provides a public place for recreation with its plantings.

ST MARYS PUBLIC SCHOOL

The school complex provides the focus for appreciating the development of a Town Centre at St Marys over the late nineteenth century with the construction of public buildings to serve the suburban and rural communities. The classroom blocks are good representative examples of standard rural school building design developed by George Allen Mansfield, the architect of the Council of Education and successor William Kemp, the architect of the Department of School Education. The complex demonstrates the emergence of the provision of public education within the LGA following the Public Schools Act of 1866 and subsequent consolidation by the Public Instruction Act of 1880.

WAGON WHEEL HOTEL

The hotel completed in 1955 represents the large scale redevelopment of the village with the development of the Dunheved industrial complex in the post war years. The site has historical associations with the Bennett family firm of wagon builders, being the site of James William Bennett's Volunteer Hotel and wheelwright business of the 1860s.



Fig. 19: Heritage goods shed outside the train station



Fig. 20: Parish church of St Marys Magdalene (built 1837-40) (Source: penrithhistory.com)



Fig. 21: Wagon Wheel Hotel along the highway

HISTORY & HERITAGE



Fig. 22: 'Bronte' villa on Gidley Street

BRONTE

The two storey house on the corner of King and Gidley Streets was once the home of James Bennett of the famous firm of 'G and J Bennett', wheelwrights and wagon builders of St Marys. Completed in 1889, it was designed by Mr W. Sykes and was built by local builder, Joseph Sainsbury.

The house demonstrates the rise of a resident professional class in St Marys over the late nineteenth century, and is the only extant building which provides a tangible association with the Bennett family. The house is an excellent example of a late Victorian suburban middle-class villa, on a scale that is rare within the LGA. The building is one of a small number of structures in St Marys erected over the nineteenth century and early part of the twentieth century which collectively demonstrate the pattern of village settlement. Collectively these properties imbue the suburb with high historic and aesthetic values.

RECENTLY INVESTIGATED SITES

The Study Area has a few sites that are not heritage listed, but have associations with St Marys' history. One such site is the Duration Cottages to the west of Carinya Avenue, where temporary housing was built in 1942 for workers employed at the St Marys Munitions Factory (located in the area now known as Dunheved Business Park). Its subdivision comprised eight blocks of residential allotments (about 150 small lots) with a park at the centre.

Council recently undertook a heritage investigation for this area which concluded that the Duration Cottages do not reflect the characteristics that would warrant their listing as heritage items nor the establishment of a Heritage Conservation Area for the precinct. The investigation however found the subdivision pattern and the streetscape layout centred around Jack Jewry Reserve and its original mature trees at four corners to be remarkably intact. The investigation recommended these aspects be protected and preserved, representing significant evidence of the area's development as a war-time precinct.



Fig. 23: St Marys Duration Cottages

POTENTIAL ITEMS FOR HERITAGE INVESTIGATION

Heritage investigations could be considered for a few more sites in the Town Centre that have associations with St Marys' history.

60 QUEEN STREET

The building appears to be from the late 19th to early 20th century and hence could be a site worth further investigation to determine its heritage significance.

9, 10 AND 11 STAPLETON PARADE

These cottages appear to be from the 1940s and are likely connected with the North St Marys Defense Radburn Estate. The Glossop Street Precinct Urban Design Study commissioned by Council and LAHC in 2008 identified these dwellings to be retained as an enclave of representative public housing.

OTHER ITEMS

Council's LEP Schedule 5 lists 40 Gidley Street as a heritage item, however it does not list 42 Gidley Street which is a 19th century building similar to 40 Gidley Street in its form, detailing and materiality. Schedule 5 lists 38 Gidley Street as a heritage item. However, this is a relatively recent modern replica building with modern walls, verandahs, windows, doors and gable end details. Council has identified the need to add 42 Gidley Street and remove 38 Gidley Street from the LEP Schedule 5.

KEY STRENGTHS

- St Marys has a multi-layered Aboriginal and Torres Strait Islander and European culture, heritage and history
- Heritage buildings and infrastructure in the centre contribute to its visual richness
- South Creek is a great natural asset that contributes to the scenic and landscape character of the area
- Queen Street's public domain represents post-settlement historic narratives
- St Marys' community values its heritage assets

KEY CHALLENGES

- Some sites and places of Aboriginal significance have not yet been identified and protected
- In some cases, recently constructed buildings are not sympathetic to the heritage of the area
- Some potential items of heritage significance have not yet been adequately investigated and protected

HISTORY & HERITAGE

AREAS OF SCENIC AND LANDSCAPE CHARACTER

The Penrith LEP 2010 protects certain areas in the LGA for their scenic and landscape values. Some of the objectives of this clause are:

- To identify and protect areas that have particular scenic value either from major roads, identified heritage items or other public places
- To ensure development in these areas is located and designed to minimise its visual impact

The LEP mandates that development consent should not be granted for any development in such areas unless the consent authority is satisfied that measures will be taken, including in relation to the location and design of the development, to minimise the visual impact of the development from major roads and other public places.

In the Study Area, lands identified to have scenic and landscape values are across three distinct zones as shown on the map beside:

- Queen Street
- South Creek
- Railway Corridor



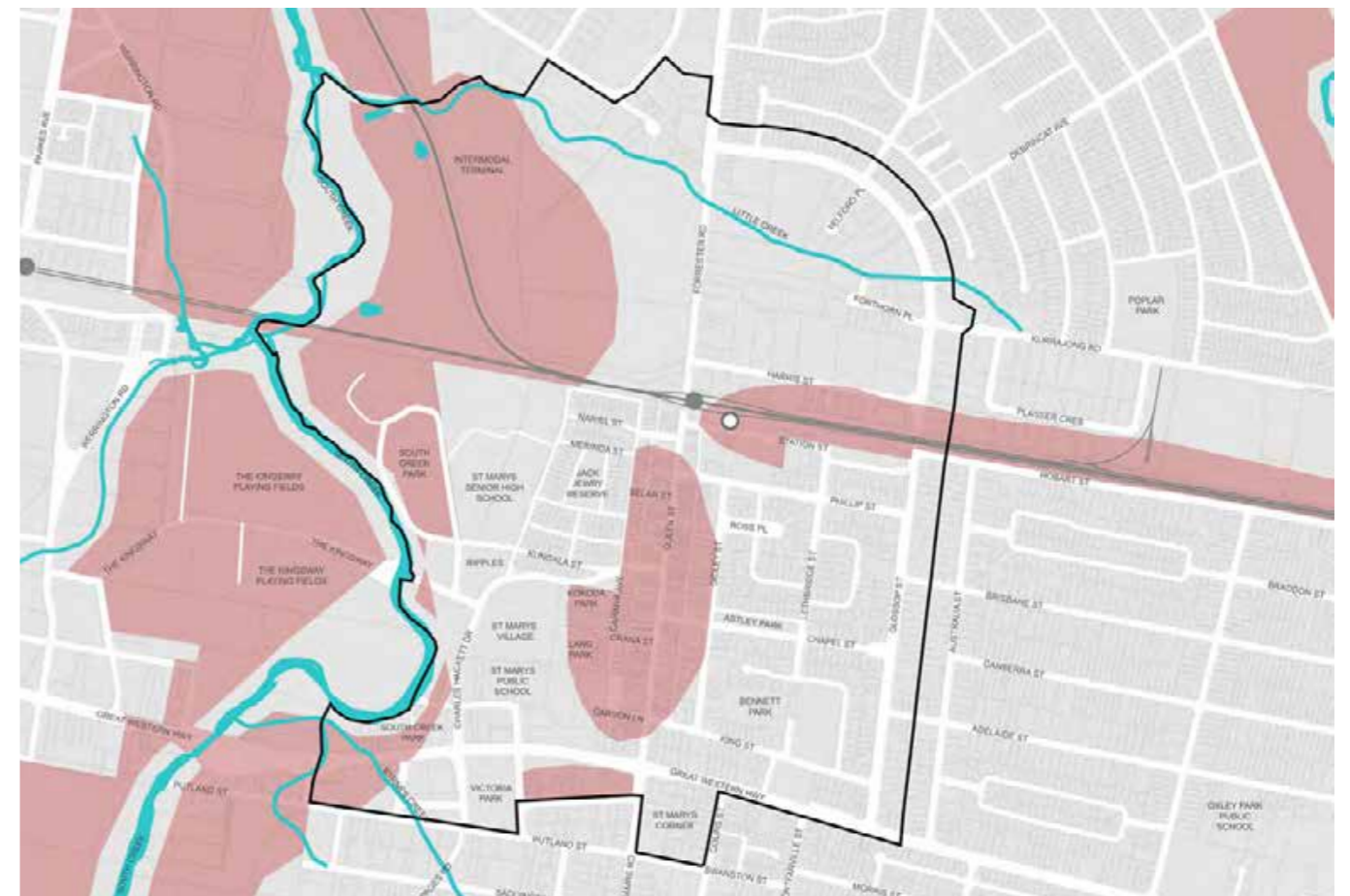
Fig. 24: The Queen Street streetscape has distinct zones and represents the area's history through furniture, paving, public art and signage



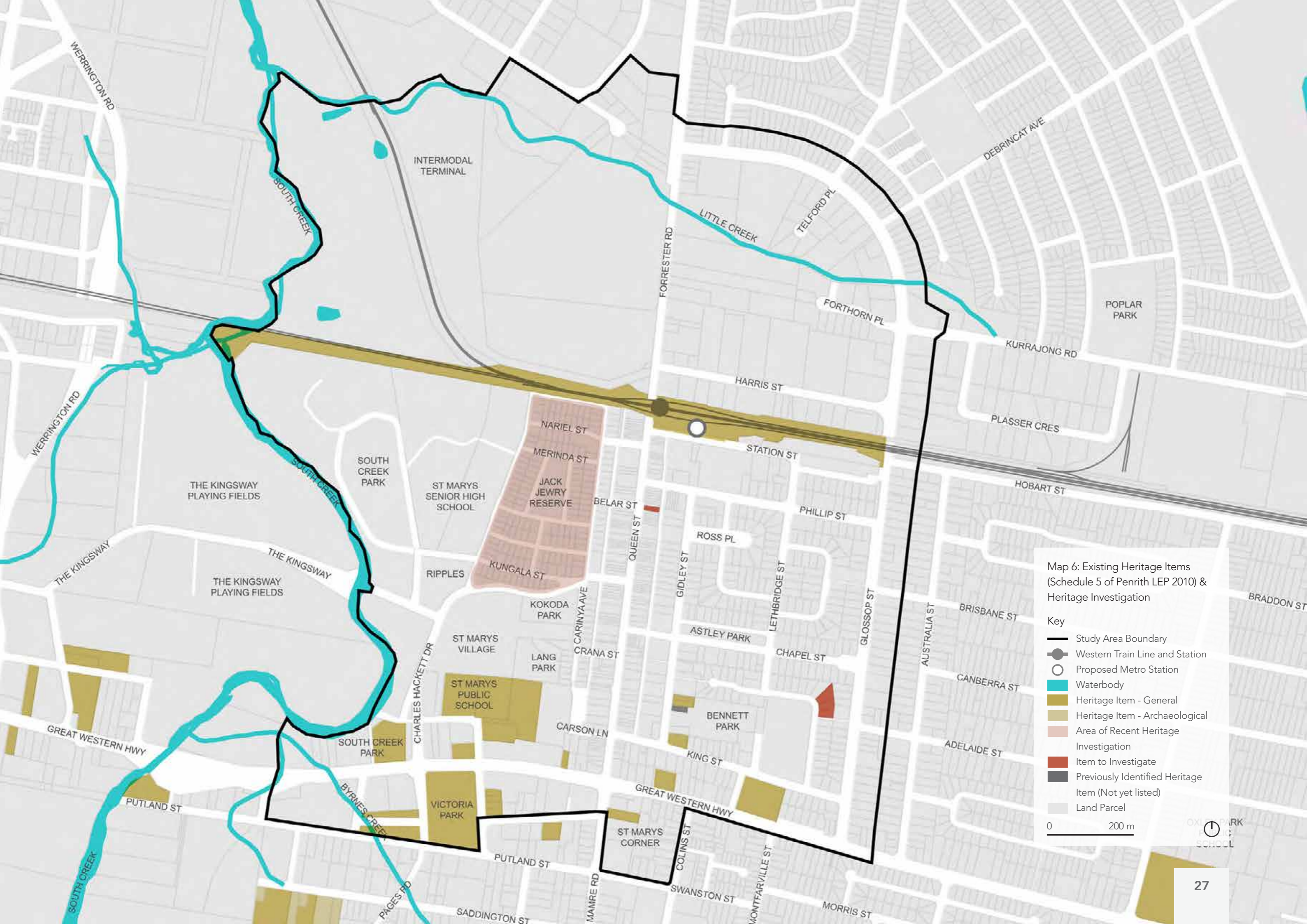
Fig. 25: The South Creek corridor offers a great connection with nature and opportunities for cooling and respite



Fig. 26: The Western railway line to the north of the St Marys Town Centre



Map 5: Areas of Scenic and Landscape Values (Penrith LEP 2010)



Map 6: Existing Heritage Items (Schedule 5 of Penrith LEP 2010) & Heritage Investigation

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Waterbody
- Heritage Item - General
- Heritage Item - Archaeological
- Area of Recent Heritage Investigation
- Item to Investigate
- Previously Identified Heritage Item (Not yet listed)
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

LAND OWNERSHIP, PLANNING CONTROLS & DEVELOPMENT PIPELINE

A great proportion of land within the Study Area is publicly owned and managed by Penrith City Council and various NSW Government agencies. These include lots with car parking, open spaces, recreation and environmental conservation areas, community facilities, transport infrastructure, public housing and commercial buildings. This creates a unique opportunity for government to be the catalyst for sustainable growth, prosperity and delivery of public benefit in St Marys Town Centre.

CURRENT LAND OWNERSHIP

Penrith City Council and the NSW Government own a great proportion of land in and around the Study Area, as shown on Map 7. The remaining of the lots are privately owned and are in fragmented land ownership, particularly along Queen Street.

COUNCIL OWNED LAND

A majority of Council landholdings in the Study Area are in the form of parks and reserves, community infrastructure (St Marys Corner and Ripples) or lots with car parking and commercial buildings.

St Marys Town Centre has around 1,825 off-street public car parking spaces (as per a parking survey conducted by Council in 2019). Sydney Metro conducted a survey in 2019 as well, which concluded that the car parks to the east of Queen Street were underused. Council car park sites have the potential to change in the future as a consequence of better public transport, modal shift and community needs.

The Kokoda and Lang Park sites and adjacent car parks owned by Council were reclassified from community to operational land in 2016, allowing for the strategic redevelopment of these key sites. A large portion of the South Creek Park is also classified as operational land.

NSW GOVERNMENT OWNED LAND

Various NSW Government agencies have a presence in St Marys. Transport for NSW (TfNSW) owns the Western railway corridor whereas Sydney Metro owns substantial land parcels around the proposed metro station. The parklands to the west of South Creek are owned by the NSW Department of Planning & Environment (DPE), under the care, control and management of Council. The NSW LAHC owns and manages lots with public housing to the east of Queen Street and in North St Marys.

The two schools within the Study Area - St Marys Senior High School and St Marys Public School fall under the ownership of the NSW Department of Education. St Marys Senior High sits on a large block, lacking a formal pedestrian and cycle path to better connect Queen Street and South Creek. Council's Sport and Recreation Strategy (2020) recommends developing a joint use agreement with the Department of Education for access to facilities at schools, specifically St Marys Senior High School.

LARGE PRIVATELY OWNED LAND

Significant private landholdings in the Study Area include the St Marys Village shopping centre site along Charles Hackett Drive and the Pacific National Freight Hub (Intermodal Terminal) to the north of the railway corridor. It will be important for large sites with community-oriented uses such as the St Marys Village shopping centre to offer accessible through-site links and a variety of retail offerings.

KEY STRENGTHS

- High percentage of land is publicly owned by Council and the NSW Government
- Government assets provide essential social and transport infrastructure, housing and open spaces for residents
- In some cases, large government landholdings present opportunities for strategic redevelopment and improved community outcomes, such as off-street car parking sites
- Public housing in the Study Area has the essential role to provide long-term and secure rental accommodation to vulnerable people within proximity to public transport services, jobs, community services and recreational opportunities

KEY CHALLENGES

- Land ownership is fragmented particularly along Queen Street and to the west of Queen Street, making it harder to amalgamate lots for redevelopment
- Some of the government owned land parcels impede permeability of the area due to large lot size and lack of formalised through-site links



Map 7: Land Ownership

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Waterbody
 - Council Owned Lot
 - NSW Department of Education/Minister for Education & Training
 - NSW Department of Planning & Environment/Minister Administering The Environmental Plan
 - NSW Land & Housing Corporation
 - Transport for NSW/ Transport Asset Holding Entity of NSW
 - Sydney Metro
 - Crown Lands
 - Minister for Police Properties
 - Minister For Emergency Services
 - Minister for Disability Services
 - Privately Owned Lot

0 200 m



LAND OWNERSHIP, PLANNING CONTROLS & DEVELOPMENT PIPELINE

CURRENT PLANNING CONTROLS

LAND USE ZONES

The Penrith LEP 2010 applies to the Study Area. Land use zones are shown on Map 8. A large part of the Study Area along and to the west of Queen Street is zoned B4 Mixed Use allowing for a diversity of land uses. An LEP amendment was made to introduce a new control mandating ground and first floor levels of any development in the St Marys Town Centre Core to be used exclusively for non-residential uses. This control was put in place to protect and enhance the amount of retail and commercial floor spaces in the Town Centre and deliver services and jobs to the community.

Industrial zoning IN1 applies to the area to the north of the railway corridor, making an important contribution to job containment and industrial production in the LGA.

R4 High Density Residential uses are permissible to the east of Queen Street near the railway station and to the south of the Study Area, which is beyond the station's 10-minute walking catchment. R3 Medium Density Residential uses are permissible around Bennett Park. The area to the west of Queen Street where the historic 'Duration Cottages' are located are zoned R2 Low Density Residential. The same zone applies to the residential area at North St Marys.

The western part of the Study Area along South Creek is zoned C2 Environmental Conservation to protect and manage the watercourse and its ecological, hydrological and scenic values. The Study Area also has several sites zoned RE1 Public Recreation, providing essential recreation spaces for the local community. However, some of these sites are inaccessible and do not currently serve a recreational purpose (this is discussed further in this report). On the other hand, a few existing open spaces such as Ross Place, Lang Park, Kokoda Park and Coachmans Park are not zoned RE1 Public Recreation in the Penrith LEP 2010.

BUILDING HEIGHT CONTROLS

As shown on Map 9, most of the area along and to the south-west of Queen Street has a maximum permissible building height of 24m (6 - 7 storeys). A maximum permissible building height of 32m (8 - 9 storeys) applies to the land immediately south of the railway station. A Planning Proposal was recently approved allowing a 61m height control on the former Station Plaza shopping centre site. Across the industrial area, the Penrith LEP 2010 prescribes a maximum permissible building height of 12m. A portion of the Study Area to the south of the Great Western Highway and to the east of Queen Street have maximum permissible building height controls ranging between 15m and 21m. Residential lots to the south-east and north-west of Queen Street as well as that around North St Marys neighbourhood centre are allowed a maximum building height of 8.5m.

In December 2020, Council commissioned HillPDA to undertake a preliminary analysis of the potential for housing development in St Marys under the current planning controls. The study estimated that the likely dwelling potential of St Marys REMPLAN precinct (area including the suburbs of St Marys, North St Marys, Oxley Park and Colyton) would be in the order of around 11,000 dwellings under current controls.

Council's Local Housing Strategy, 2022 (LHS) indicates a similar figure (noting that around 782 dwellings have already been completed between 2016 and 2021). Based on these figures and noting that the majority of dwellings will be delivered within the St Marys Town Centre Study Area, the Structure Plan anticipates that there is sufficient capacity in the current planning controls to accommodate the projected low to high dwelling growth scenarios (refer to the Structure Plan - 'Shaping the Future of St Marys Report' for estimated dwelling projections over the next 20 years).

FLOOR SPACE RATIO CONTROLS

Floor Space Ratio (FSR) controls currently only apply to the B4 Mixed use zone located around Queen Street (refer to Map 10). This includes a predominant FSR of 2.5:1, with 3.5:1 FSR on land adjacent to the station and a 5.5:1 FSR for the former Station Plaza site. There is an opportunity to consider developing FSR controls across the Study Area.

MINIMUM LOT SIZES

Lot sizes in the Study Area vary from 400sqm to 400,000sqm. Minimum lot size controls in the Penrith LEP 2010 aim to minimise amenity impacts in case of land subdivision. The majority of the residential areas in the Study Area have a permissible minimum lot size of 400sqm, whereas that in the B4 Zone is 1,200sqm. The industrial area has a permissible minimum lot size of 1,000sqm. Refer to Map 11.

ACTIVE FRONTAGES

The majority of the active frontages control in the Study Area is along Queen Street and on the east-west streets leading up to it. However, the Penrith LEP 2010 also prescribes active frontages to the north and east of the St Marys Village shopping centre site, along the Great Western Highway and along Station Street. Refer to Map 12.

LAND OWNERSHIP, PLANNING CONTROLS & DEVELOPMENT PIPELINE

KEY STRENGTHS

- Preliminary studies indicate that the current Penrith LEP 2010 zoning, height and FSR controls have sufficient capacity to accommodate anticipated population and dwelling growth
- Environmental Conservation zoning along South Creek helps to protect and manage the creek's ecological, hydrological and scenic values
- Active frontage controls promote passive surveillance and interesting streetscapes
- Industrial lands are protected

KEY CHALLENGES

- R2 Low Density Residential within 200m from the new Metro Station needs further consideration
- R4 High Density beyond a 10-minute walking distance from the train station is contrary to transit oriented development principles and needs consideration
- Some existing public open spaces in the Study Area are not zoned RE1 Public Recreation
- FSR control currently applies only to the Town Centre Core
- In some cases, building height and bulk/scale may impede view corridors and scenic landscapes
- Controls allow for non-residential uses at ground level and level 1 of the Town Centre Core, but significant investment is yet to occur
- Controls allow for housing diversity but significant investment is yet to occur

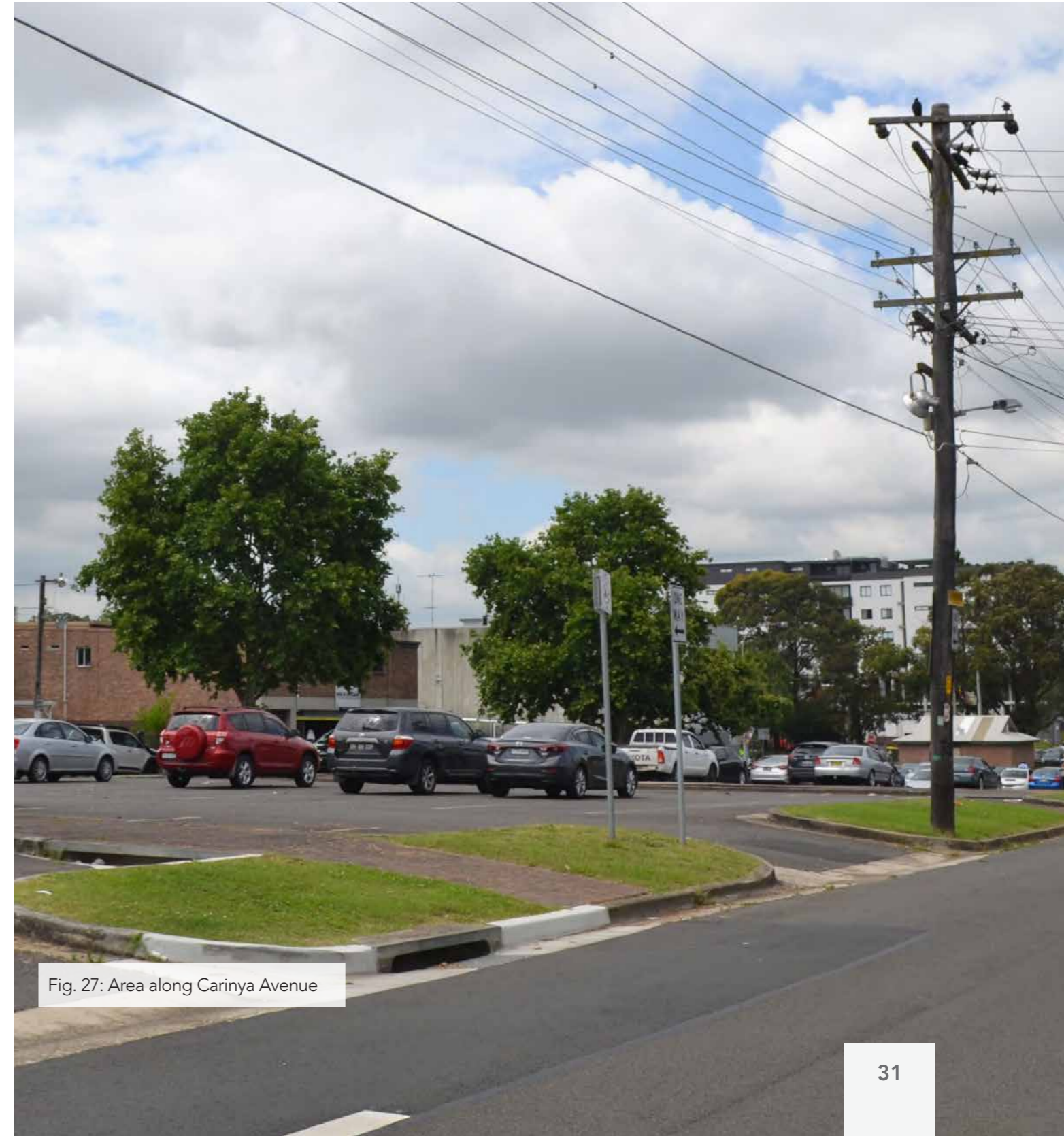
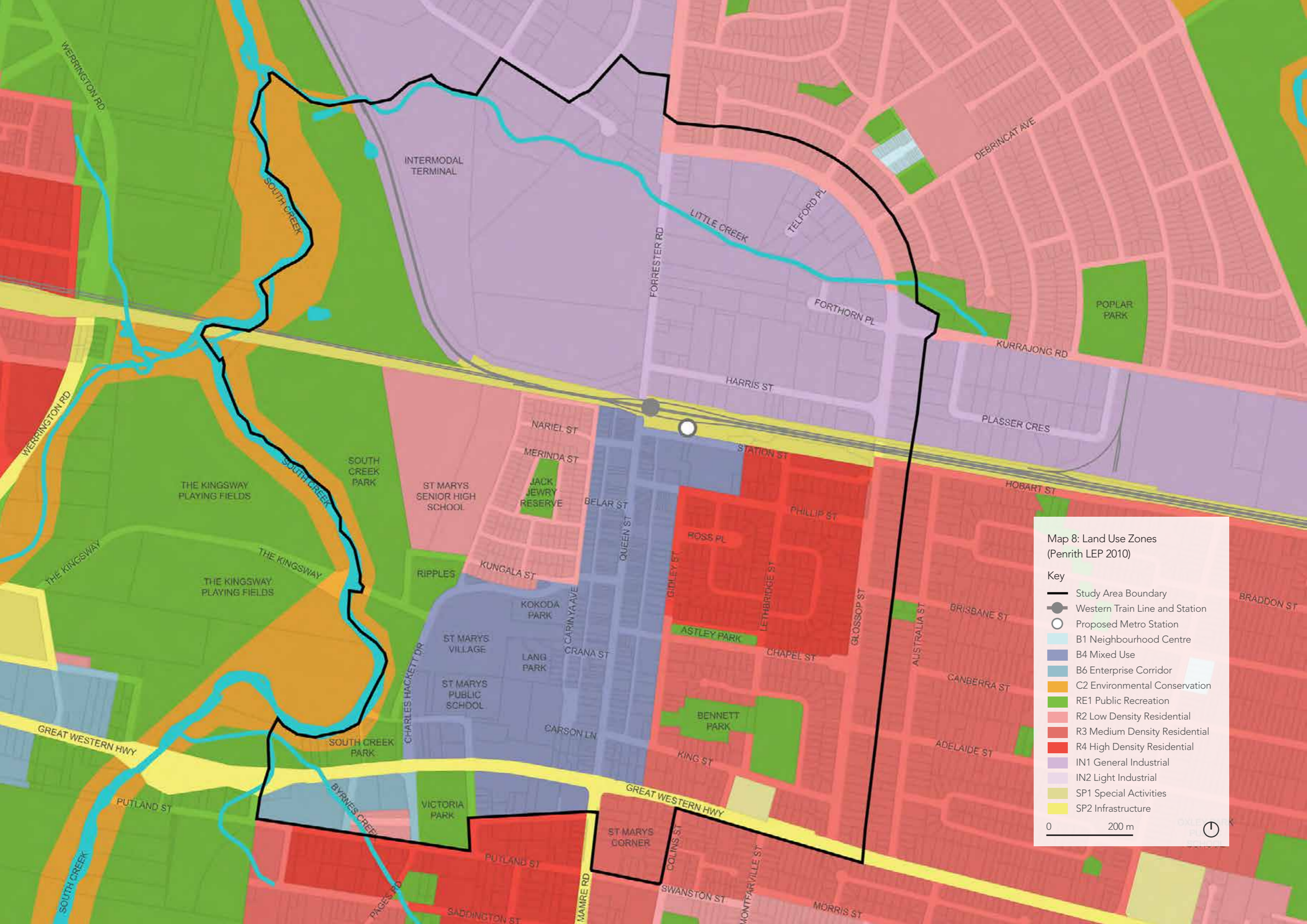


Fig. 27: Area along Carinya Avenue

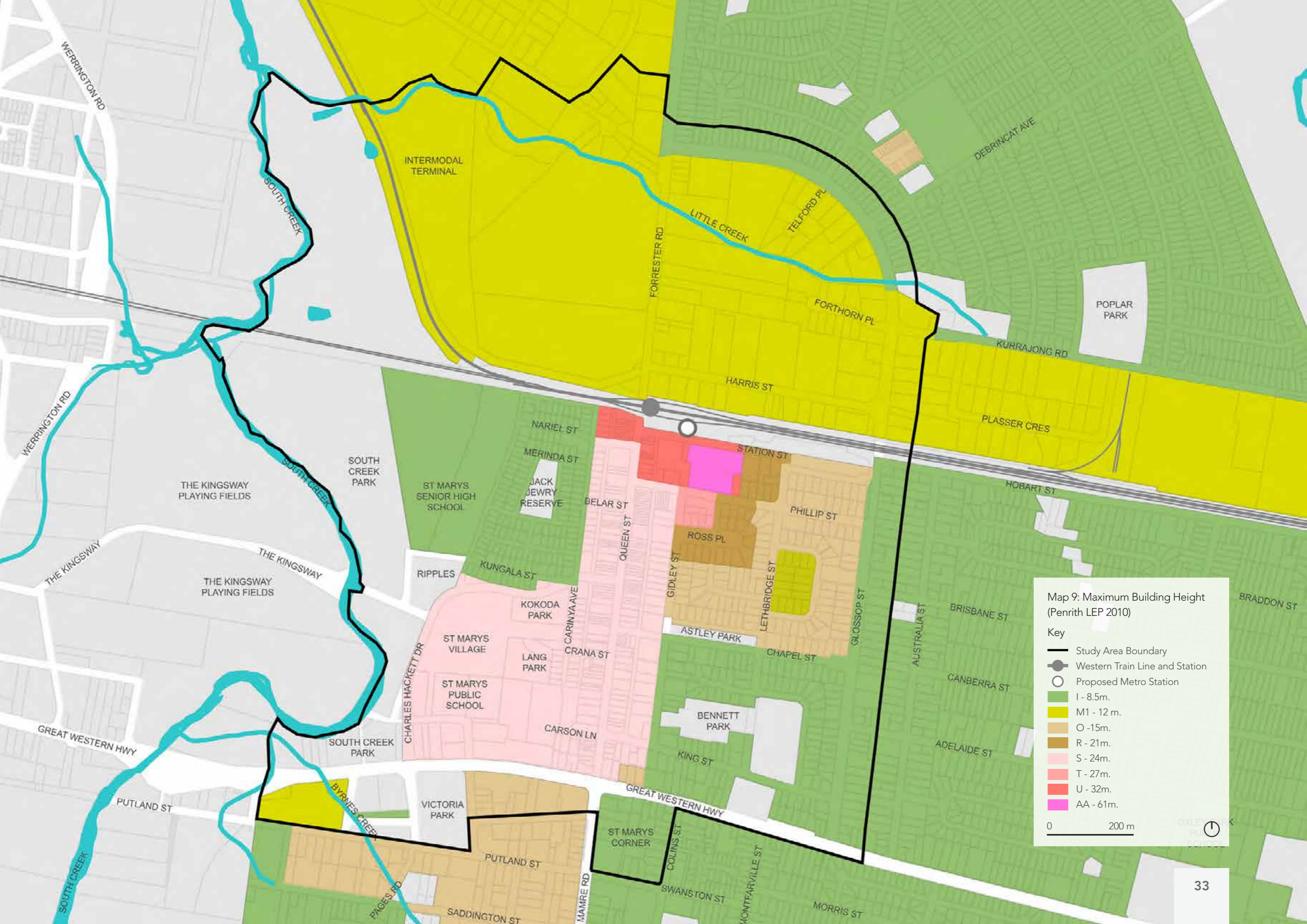


Map 8: Land Use Zones
(Penrith LEP 2010)

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - B1 Neighbourhood Centre
 - B4 Mixed Use
 - B6 Enterprise Corridor
 - C2 Environmental Conservation
 - RE1 Public Recreation
 - R2 Low Density Residential
 - R3 Medium Density Residential
 - R4 High Density Residential
 - IN1 General Industrial
 - IN2 Light Industrial
 - SP1 Special Activities
 - SP2 Infrastructure

0 200 m



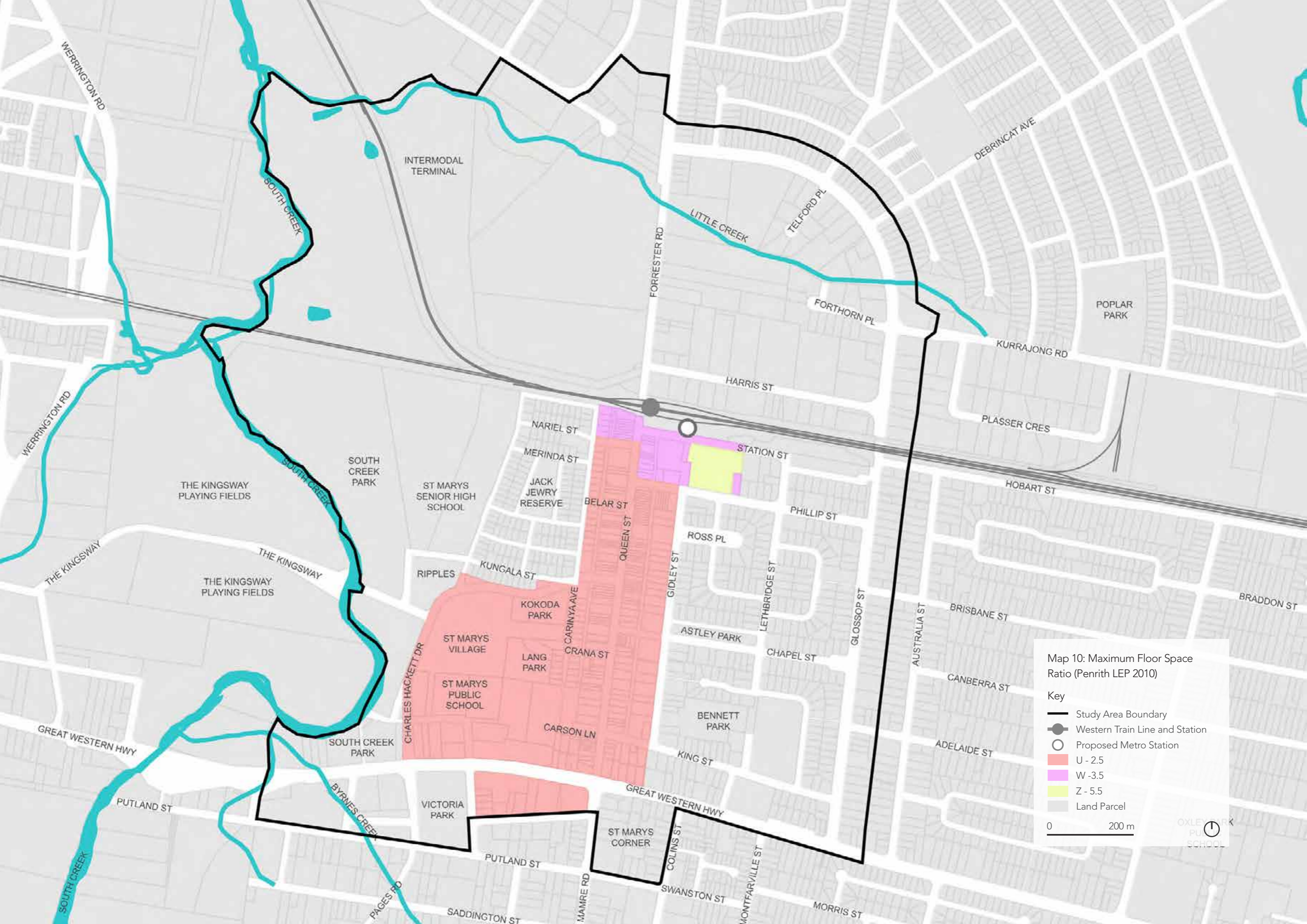


Map 9: Maximum Building Height (Penrith LEP 2010)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- I - 8.5m.
- M1 - 12 m.
- O - 15m.
- R - 21m.
- S - 24m.
- T - 27m.
- U - 32m.
- AA - 61m.

0 200 m



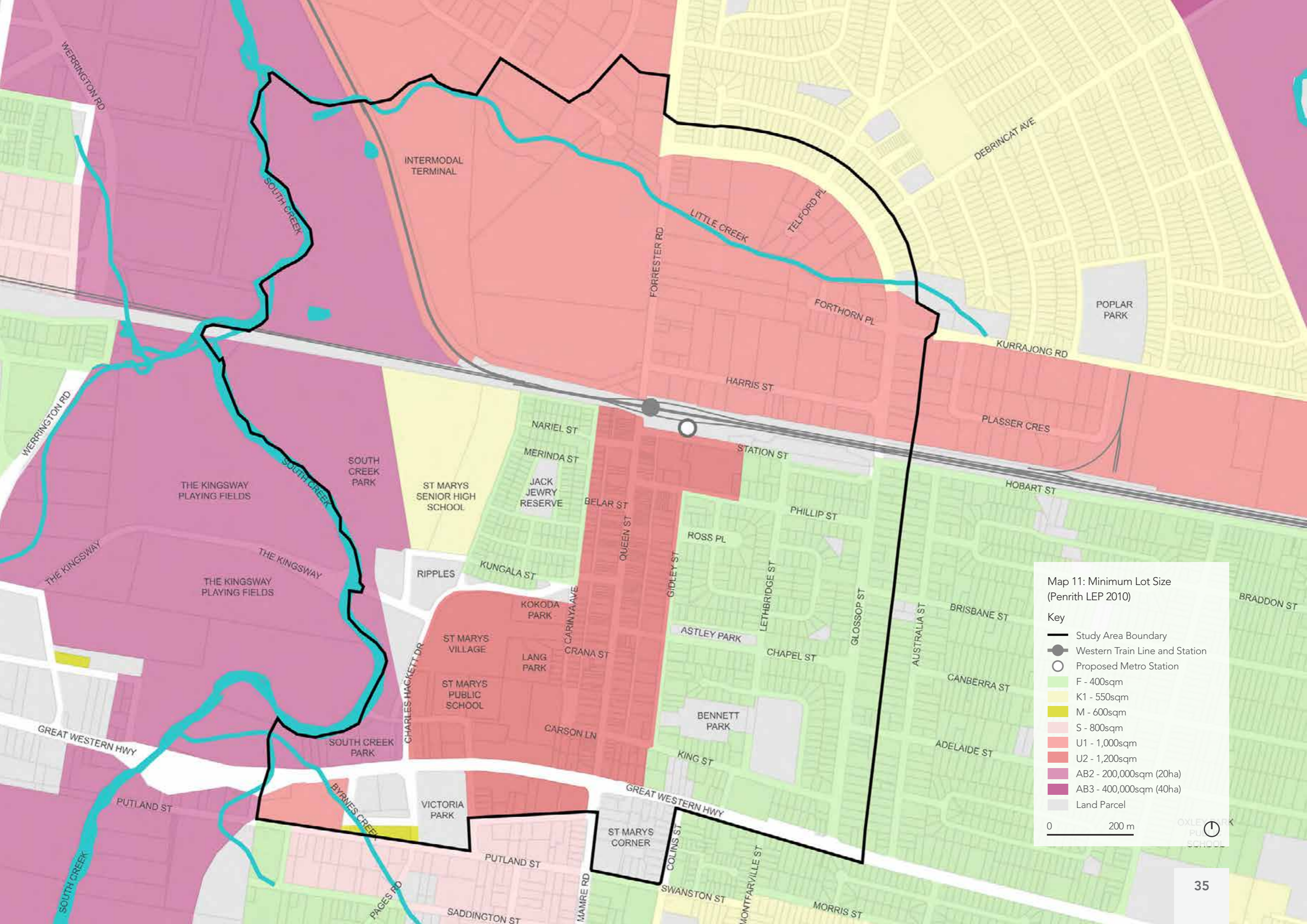
Map 10: Maximum Floor Space Ratio (Penrith LEP 2010)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- U - 2.5
- W - 3.5
- Z - 5.5
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

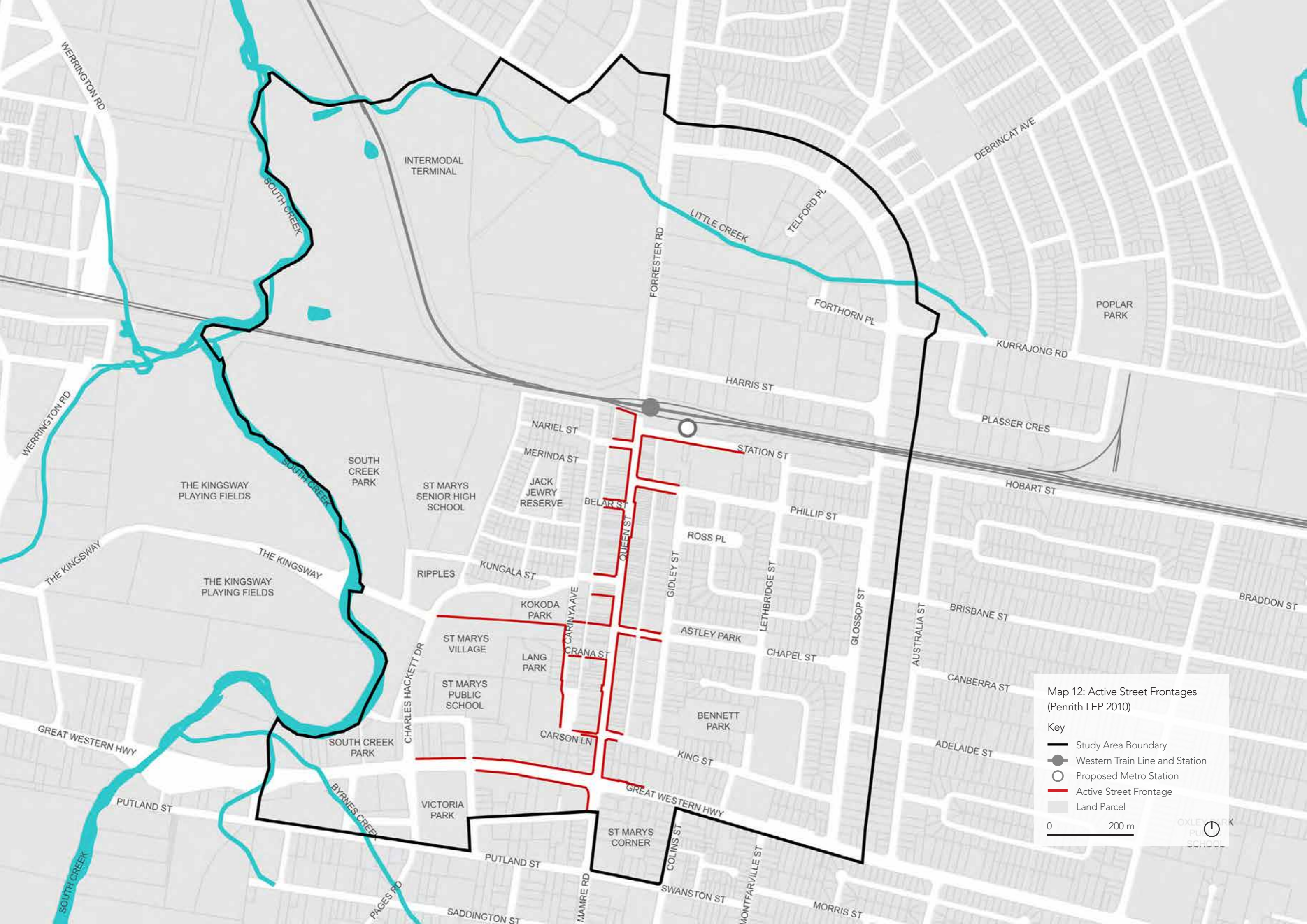


Map 11: Minimum Lot Size (Penrith LEP 2010)

Key






- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- F - 400sqm
- K1 - 550sqm
- M - 600sqm
- S - 800sqm
- U1 - 1,000sqm
- U2 - 1,200sqm
- AB2 - 200,000sqm (20ha)
- AB3 - 400,000sqm (40ha)
- Land Parcel

0 200 m



Map 12: Active Street Frontages
(Penrith LEP 2010)

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Active Street Frontage
-  Land Parcel

0 200 m

OXLEY PARK
PUBLIC
SCHOOL



Fig. 28: Aerial view of Queen Street and the area to its west

LAND OWNERSHIP, PLANNING CONTROLS & DEVELOPMENT PIPELINE

PIPELINE OF DEVELOPMENT

DEVELOPMENT APPLICATIONS

The pace of development in St Marys Town Centre has been slow, evidenced by the low number of approved development applications (DAs) in the past few years. Following are the DAs approved in St Marys in the past 6-8 years, and the status of whether development associated with the DA has been completed, is under construction or has not been delivered.

- Development completed:
 - » 159 Queen Street (7 storey mixed use building)
 - » 39-41 Gidley Street (7 storey residential apartment building)
 - » 51 King Street (6 storey residential apartment building)
 - » 11-15 Phillip Street (5 storey residential apartment building)
- Development under construction:
 - » 7 Ross Place (4 storey residential apartment/ boarding house building)
 - » 14 -18 Phillip Street (5 storey residential apartment building)
 - » 23 - 25 Lethbridge Street (4 storey residential apartment building)
- Development not yet built:
 - » 12 Carson Lane (8 storey residential apartment building)

PLANNING PROPOSALS

In 2017, a planning proposal was approved to reclassify 2.7ha of Council owned lands in St Marys Town Centre from 'community' to 'operational' lands. This included Lang Park, Kokoda Park, 8-10 Carinya Avenue, West Lane Car Park, Station Street Car Park (site acquired by Sydney Metro) and 100A Queen Street (walkway).

As part of the reclassification process of Lang and Kokoda Parks, a set of strategic objectives were developed to guide future redevelopment of the sites. It should be noted that The Structure Plan for St Marys Town Centre represents Council's current strategic thinking for St Marys Town Centre and therefore will supersede the previous strategic objectives developed as part of the reclassification of public land for Lang and Kokoda Parks, endorsed by Council at the Ordinary Meeting of 18 April 2016. The amendments to the Penrith Development Control Plan 2014 will be considered as part of the subsequent stages of the St Marys planning pathway and will supersede the resolution to amend the DCP made at the 18 April 2016 Ordinary Meeting.

In 2019, a planning proposal was approved to reclassify land at 11-13 Chesham Street from community to operational lands. This site has been acquired by Sydney Metro and is currently been used for the temporary bus interchange.

In 2020, a planning proposal was approved for the 33-43 Phillip Street (former Station Plaza shopping centre) site for a 19-20 storey

mixed use development at a density of 5.5:1 FSR, offering 600 apartments and 8,300sqm of new retail and commercial floorspace. The approval of this planning proposal included a voluntary planning agreement (VPA) which stated the requirement for the proponent to provide 9 affordable housing units (3% of units resulting from the uplift of planning controls). The VPA also included some road infrastructure upgrades and the following contributions to open spaces as follows:

- Dedication of Public Plaza of 1,316sqm at no cost to Council
- Embellishment of the Public Plaza to Councils' specifications and standards
- A 5-year maintenance period of the Public Plaza
- A \$655k cash contribution towards the upgrade of open space facilities at the nearby Bennett Park

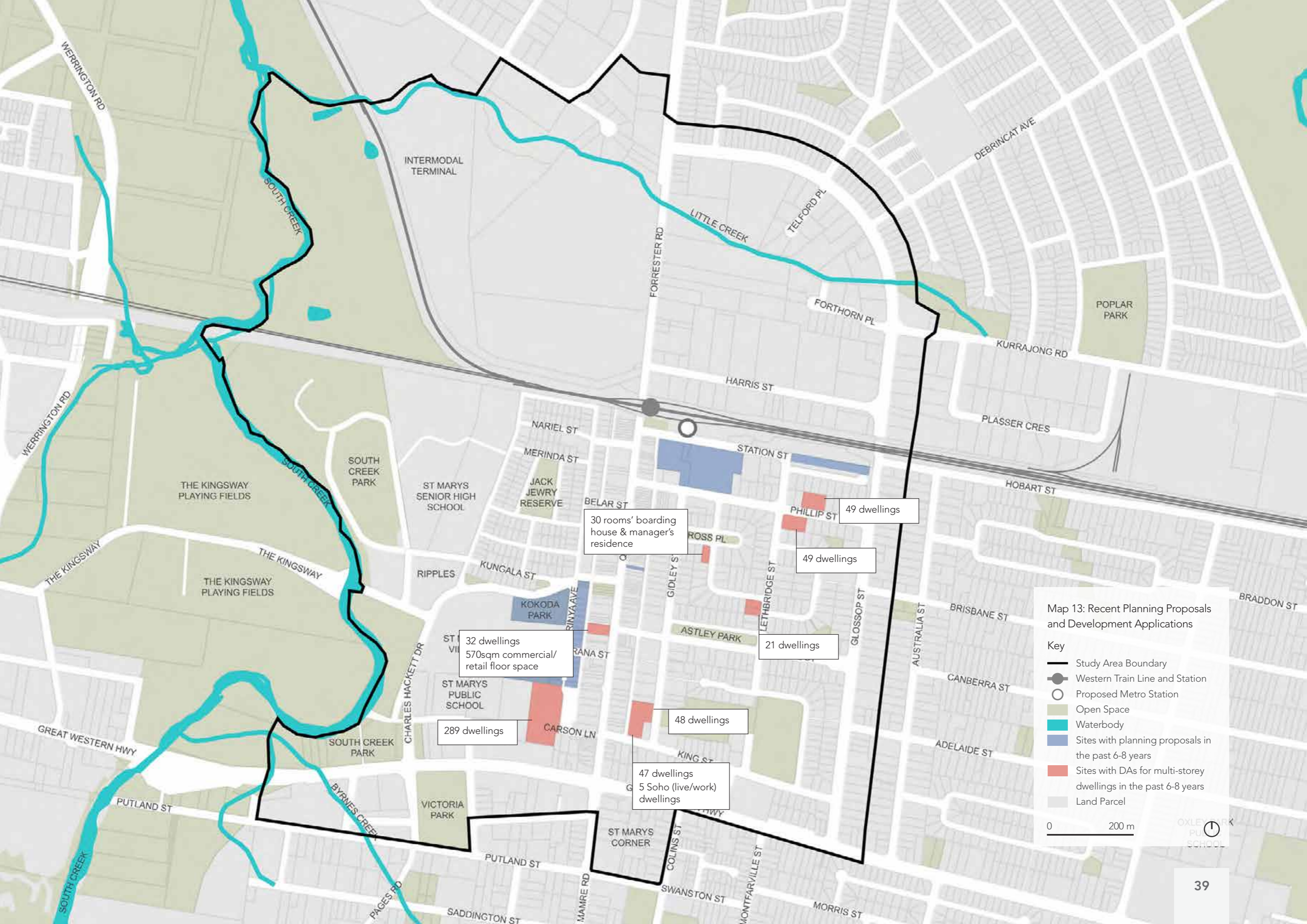
The 33-43 Phillip Street site has been acquired by Sydney Metro.

KEY STRENGTHS

- Past planning proposals for various sites in the Study Area included conditions for open space improvements and affordable housing

KEY CHALLENGES

- Slow pace of development in the Town Centre evidenced by low number of development applications



Map 13: Recent Planning Proposals and Development Applications

- Key**
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - Sites with planning proposals in the past 6-8 years
 - Sites with DAs for multi-storey dwellings in the past 6-8 years
 - Land Parcel

0 200 m



30 rooms' boarding house & manager's residence

49 dwellings

49 dwellings

21 dwellings

32 dwellings
570sqm commercial/retail floor space

289 dwellings

48 dwellings

47 dwellings
5 Soho (live/work) dwellings

SCHOOLS, COMMUNITY FACILITIES & INDOOR RECREATION

Schools, community facilities and places of recreation support the quality of life, cohesiveness, inclusivity and wellbeing of communities. These help to foster community resilience in times of stress and disasters such as COVID-19 through the provision of essential services and the planning, delivery and management of spaces required for the day-to-day functioning of communities. St Marys has a diverse offering of such assets, many of which serve as regional destinations. However, there are current limitations in the capacity and location of infrastructure such as the St Marys library and Ripples Leisure Centre. Accessing some of the facilities on foot is also a challenge.



Fig. 29: St Marys Library; Fig. 30: Area outside the St Marys Library; Fig. 31 and 32: Facilities at St Marys Corner; Fig. 33: St Marys Senior High School

SCHOOLS, COMMUNITY FACILITIES & INDOOR RECREATION

St Marys Town Centre has a diversity of social infrastructure dispersed across the Study Area. It has two public schools, both to the west of Queen Street, in addition to smaller private educational centres. St Marys Public School is a primary school for grades K-6 whereas St Marys Senior High School is for senior students from grades 11 and 12. There is no high school (grades 7-10) in the Study Area, the nearest facility is the Chifley College Dunheved Campus in North St Marys. Both the schools occupy large lots of land. There are currently no tertiary educational institutions in St Marys.

Analysis of the need for additional school infrastructure/ upgrades will be required to be undertaken by the NSW Government once the population and dwelling projections for St Marys Town Centre are released as part of the Structure Plan. The Department of Education and Council have a Memorandum of Understanding (MoU) to share facilities and maintenance in the Penrith LGA, however this is not in place yet for the two schools in St Marys Town Centre. There is an opportunity to extend the MoU to the schools in St Marys Town Centre.

Eight childcare centres are located in the Study Area, with Council centres including Koala Corner Long Day Care Centre, St Marys Pre-School and St Marys Occasional Care Centre. Before/after school care is available at St Marys Public School.

The St Marys Corner Community & Cultural Precinct south of the Great Western Highway has some key social assets. Facilities located at St Marys Corner have variable utilisation – barriers exist due to its' location across the highway from the core of the Town Centre.

The Chambers is used by St Marys & District Historical Society. The Memorial Hall has capacity for 380 people and hosts a wide range of community events including large multicultural gatherings and weddings, end of school eisteddfods, concerts, theatre performances, art exhibitions and mental health expos. The Arts & Crafts Studios are used by Nepean Potters Society and craft groups. Users have advised that there is not enough studio space to cater to the current demand.

The Seniors Centre is used by a variety of seniors groups based both in St Marys and Penrith and includes activities such as indoor lawn bowls, computer classes, the Bridge Club and end of year gatherings. The Community Centre is home to Nepean Multicultural Access, a community based organisation that provide support to migrant families recently arrived to Australia with services that include face to face services, information sessions, referrals and advocacy for culturally and linguistically diverse (CALD) communities. Don Bosco Youth Centre and the St Marys Children's Centre also provide important services to the community.

Council received a grant to upgrade the St Marys Seniors Centre and St Marys Community Centre into a hub style facility, with construction expected to commence in 2022. Located around 1km from St Marys train station and separated from Queen Street by a major highway, St Marys Corner is not conveniently accessible on foot. However, it enjoys high visibility and presence. The memorial hall at the Corner is a popular space and draws people from areas further away such as Blacktown.

The Study Area also has Council's library along Queen Street which provides digital support and study/meeting spaces for the local community. With limitations in size and the potential to draw footfall, a need to have a larger library space located centrally in the Town Centre, potentially co-located with other facilities has been identified as an opportunity.

Several community services including Centrelink, the NSW Department of Family and Community Services, St Marys Community Service Centre and the St Marys Community Health Centre are also located in the area.

Council has identified the need for community and cultural facilities in St Marys to be ideally located within 400m from the train station. This includes an integrated multi-purpose district community facility and more cultural space, the size of which will be determined by function and purpose. The emerging focus for cultural facilities

in the area is on providing space and opportunities to make art, in a participatory and collaborative way.

The Town Centre has several indoor and outdoor recreational destinations. Of these, Map 14 includes only the indoor recreational ones (including Ripples). The outdoor recreational destinations such as parks and other open spaces are discussed in the 'Open Space' section of this report.

The Ripples Leisure Centre and Hydrotherapy Centre are key landmarks in St Marys, serving a wide demographic including athletes, families, small children and the elderly as well as people with a disability. Ripples includes outdoor and indoor pools and a waterplay splashpad. Its program/service offering in terms of health, fitness and education is its key strength. However, Ripples has been identified to have constraints, both operational (maintenance, condition of the current facility and ability to grow) and environmental (sewage line, flooding issues etc.). The Condition Report for Ripples (March 2021) recommends several upgrades in order to protect public health and safety.

SCHOOLS, COMMUNITY FACILITIES & INDOOR RECREATION

Facility Type	Facility Name	Area (in sqm)	Use
Library	St Marys Library	750	Unrestricted
Subsidised Spaces	The Chambers	230	Restricted
	Arts and Crafts Studio	270	Restricted
	Don Bosco - Youth Indoor Recreation	2,500	Restricted
		3,000sqm total - All restricted	
Community Space - Halls, Meeting Rooms, Multipurpose Centres	Memorial Hall	939	Unrestricted
	Seniors Centre	718	Restricted
	Community Centre	795	Somewhat restricted
		2,452sqm total <ul style="list-style-type: none"> 718sqm restricted 1,734sqm unrestricted 	
Cultural Space	Note: Arts and Crafts Studio listed above	0sqm	Arts and Crafts Studio - restricted

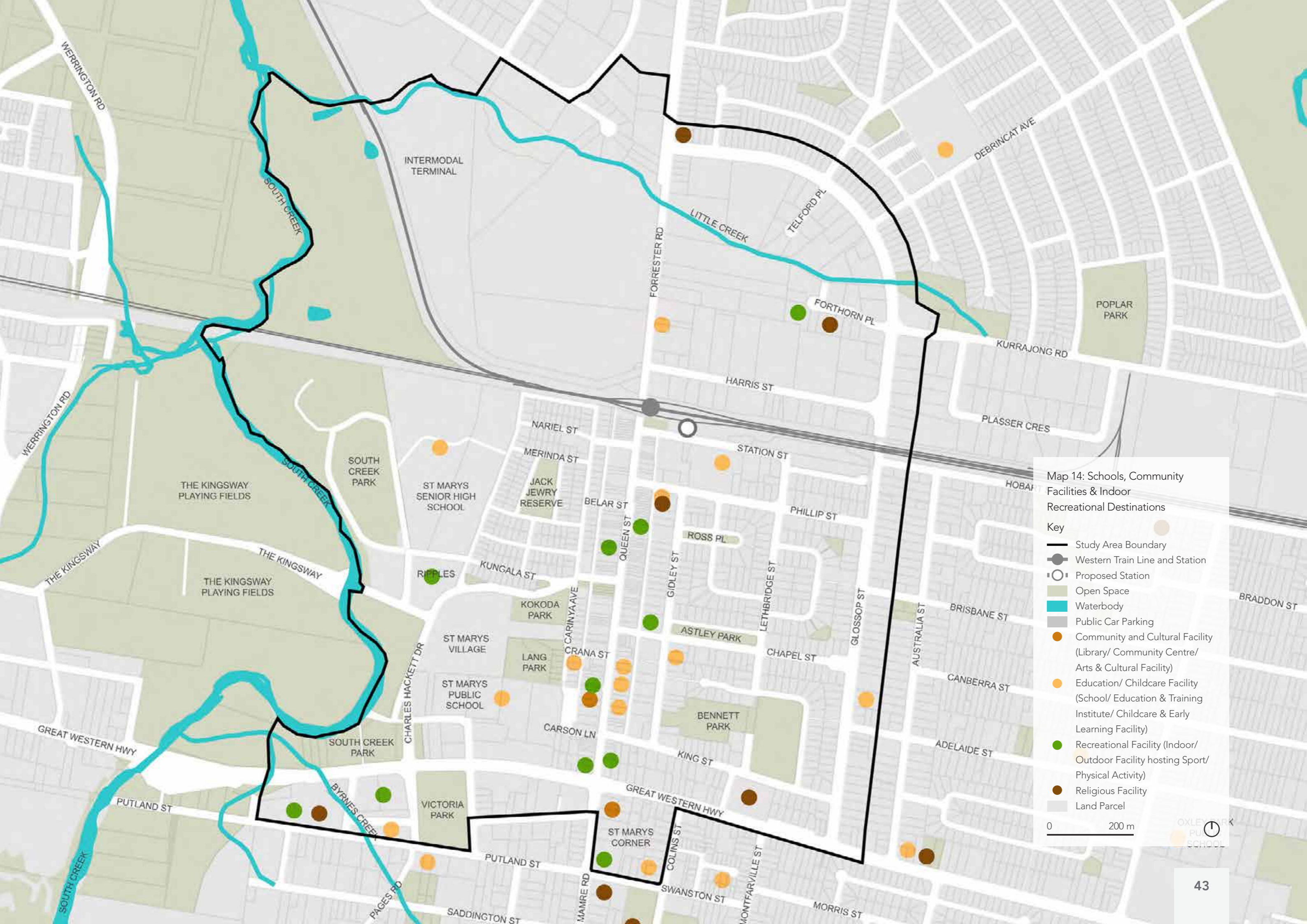
Table 3: Current provision of community and cultural facilities in St Marys Town Centre

KEY STRENGTHS

- St Marys Town Centre has a diversity of key community, educational, healthcare, sporting and recreational facilities, some of which serve as regional destinations
- Ripples Leisure Centre and Hydrotherapy Centre is a key landmark that offers important local and regional programs and services by Council for health, fitness and education
- Some spaces at St Marys Corner such as the Memorial Hall are very popular and draw people from areas beyond the LGA boundaries
- St Marys Library provides digital support and study/ meeting spaces
- Initial discussions with the Department of Education have indicated willingness to share school facilities












KEY CHALLENGES

- There is a spread of community infrastructure throughout the Town Centre in separate buildings and locations, with a cluster of facilities co-located at St Marys Corner
- Current floor space of the St Marys Library does not meet the needs of the current community and will not meet the needs of a growing St Marys population into the future. The library has limited flexible multi-purpose space to support programming
- Significant provision of community spaces within the Town Centre and St Marys Corner, but not all of them are well used. Some are fit for single purpose uses only and many have restrictions on users and are not open for the general public to access
- There is a lack of publicly accessible cultural facility floor space suitable for local communities to participate in cultural and creative expression, learning and participation
- The heat within this area can rise to as much as 50°C in summer months. The current design and layout of many of the community facilities do not mitigate well against urban heat impacts nor offer refuge from the heat
- Ripples Leisure Centre is at capacity and requires upgrade and future planning
- There are barriers for accessing the St Marys Corner site by foot and on bicycle - it is far from the train station and is located on a major freight movement corridor



Map 14: Schools, Community Facilities & Indoor Recreational Destinations

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Station
-  Open Space
-  Waterbody
-  Public Car Parking
-  Community and Cultural Facility (Library/ Community Centre/ Arts & Cultural Facility)
-  Education/ Childcare Facility (School/ Education & Training Institute/ Childcare & Early Learning Facility)
-  Recreational Facility (Indoor/ Outdoor Facility hosting Sport/ Physical Activity)
-  Religious Facility
-  Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

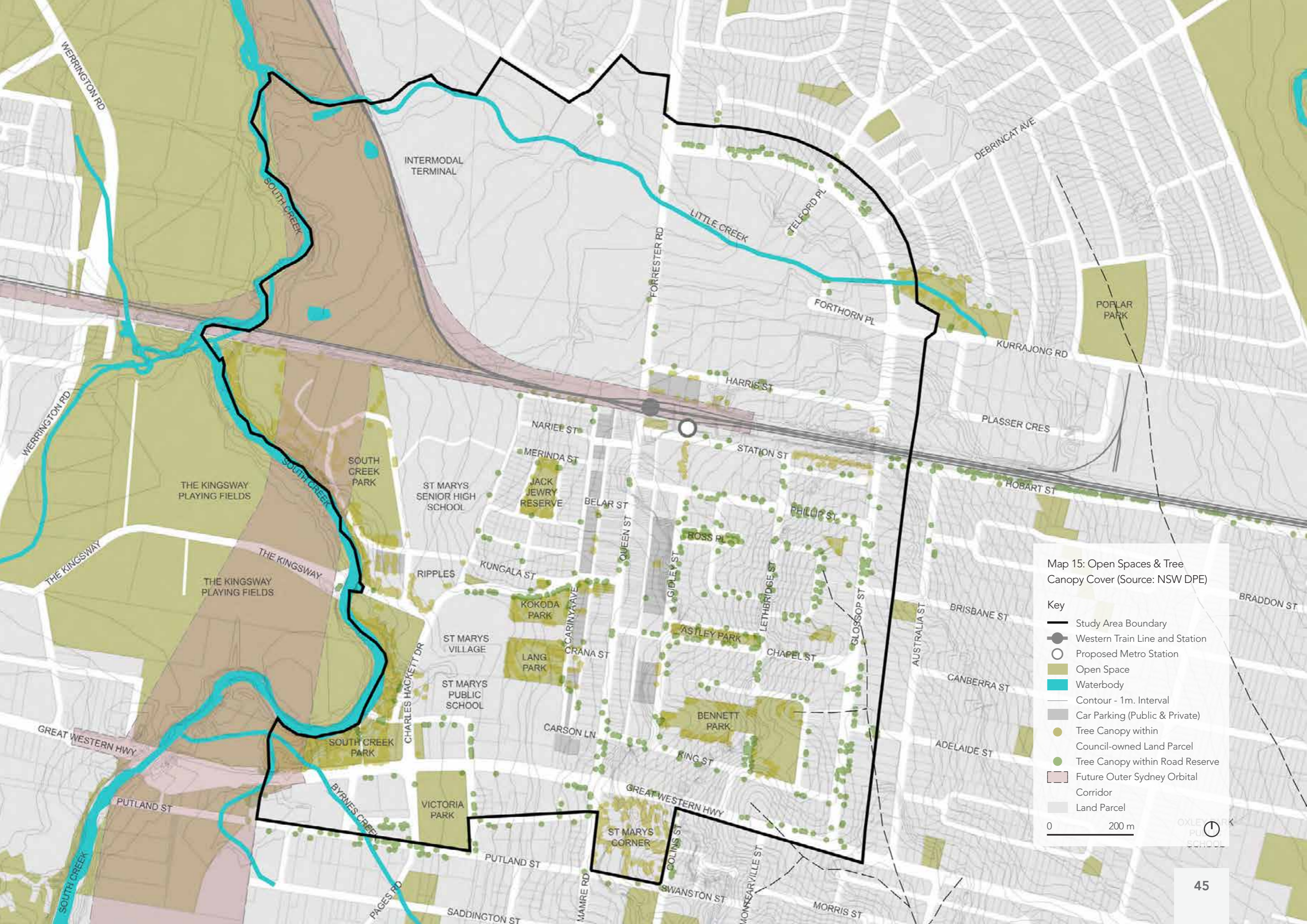
NATURAL ENVIRONMENT

A true representation of a town in its landscape, St Marys has some great natural assets, but also faces key climatic challenges. A few natural assets within the Study Area include the Wianamatta - South Creek and its surrounding parklands, a range of public open spaces and significant regional westward views to the Blue Mountains. On the other hand, the Study Area has a low tree canopy cover. It experiences challenges such as the Urban Heat Island Effect, land contamination, flooding and storm events. Additionally, the public parks lack activity diversity; and their appearance, landscape quality and activities could be enhanced.

This chapter covers a variety of topics including topography, views, water management, urban heat, open spaces, tree cover and biodiversity under the umbrella of 'natural environment', also highlighting their role in fostering liveability and sustainability of the Town Centre, now and into the future.



Fig. 34: South Creek; Fig 35: Ross Place open space; Fig. 36: Views from Bennett Park; Fig 37: Car park to the east of Queen Street; Fig. 38: Flooding near the Kingsway



Map 15: Open Spaces & Tree Canopy Cover (Source: NSW DPE)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Contour - 1m. Interval
- Car Parking (Public & Private)
- Tree Canopy within Council-owned Land Parcel
- Tree Canopy within Road Reserve
- Future Outer Sydney Orbital Corridor
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

NATURAL ENVIRONMENT

TOPOGRAPHY AND VIEWS

St Marys is a true 'town in its landscape'.

The Study Area has a gradually sloping terrain. With Glossop Street located partially along a ridgeline, the land slopes westward down towards South Creek, Byrnes Creek and to the north towards Little Creek.

The land ascends more significantly from Gidley Street towards Glossop Street, which allows for regional views along the east-west streets towards the Blue Mountains escarpment. Some of the east-west streets in the Study Area that allow significant views to the mountains are Harris Street, Nariel Street, Phillip Street, Chapel Street, King Street and the Great Western Highway. Views can also be enjoyed from public open spaces such as Astley Park and the north-eastern higher part of Bennett Park.

The mountain and landscape views offer a unique sense of place, orientation and legibility in the landscape, and are an important feature to be protected and preserved as the Town Centre grows over time. It will be important to carefully plan building bulk and setbacks in the Town Centre as part of the St Marys Town Centre Master Plan to ensure that future development preserves the scenic view corridors and does not dominate the skyline. The impact of tree canopy heights as well as overhead wires along view corridors in the Town Centre will also need to be considered.

Queen Street enjoys local urban views with its generally low-set built form. The train station is at one of the ends of a terminating vista. There are also a couple of viewlines between Coachmans Park and Queen Street and South Creek. These view corridors should be preserved in order to promote legibility of the centre and to aid local wayfinding between key destinations.



Fig. 39: Regional views to the mountains from Bennett Park



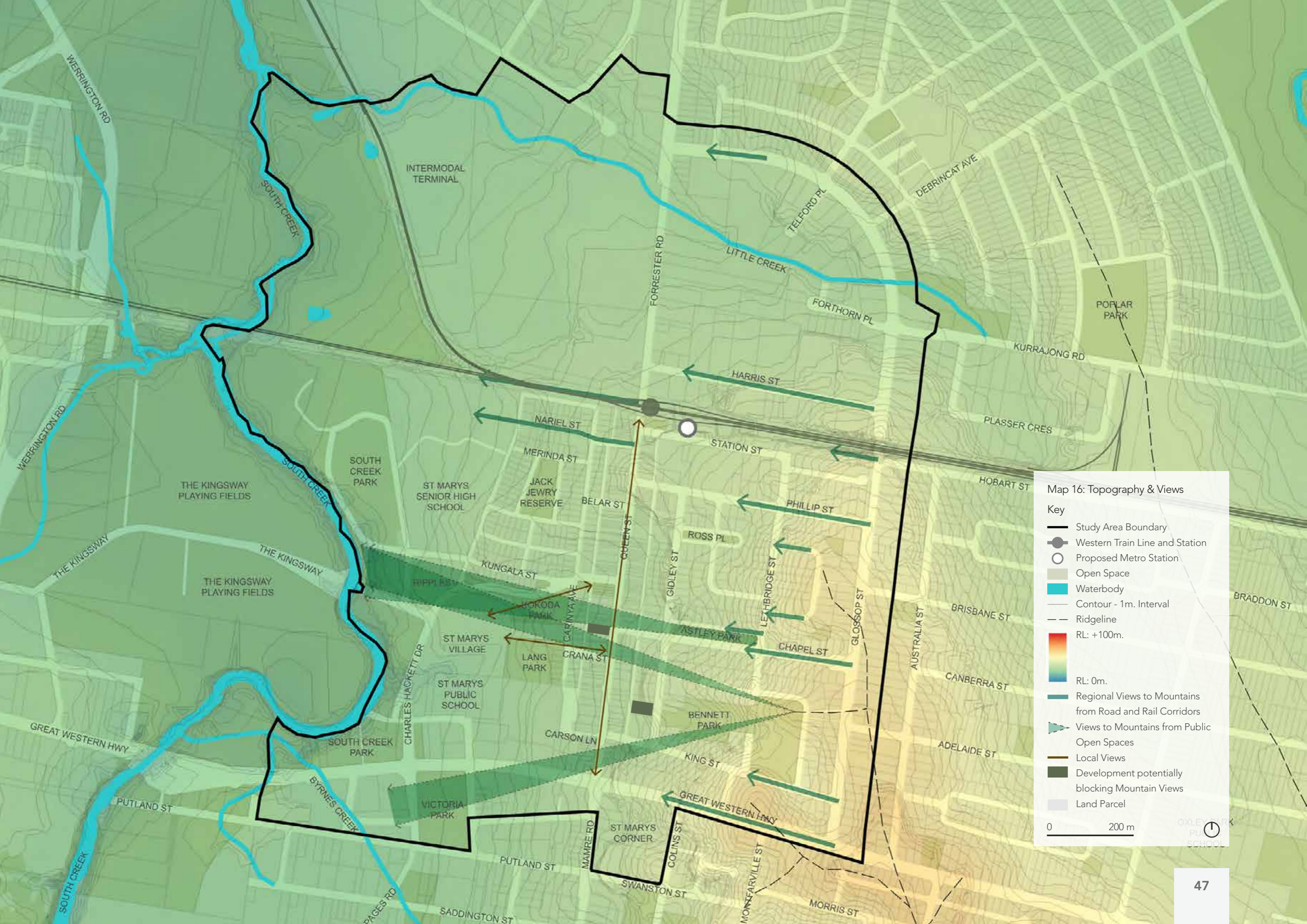
Fig. 40: Local views along Queen Street to St Marys train station

KEY STRENGTHS

- A town in its landscape - tree canopy along South Creek, green ecological corridors and views to the Blue Mountains can be experienced from various points in the Town Centre
- Significant scenic views to the Blue Mountains offer a unique sense of place, legibility and orientation
- Terminating vista along Queen Street and local views to South Creek aid local wayfinding and legibility
- Predominantly low height of existing buildings (1 to 2 storeys) along Queen Street and east-west orientation of streets allows views to green spaces/ mature tree canopy

KEY CHALLENGES

- Opportunity to look at built form controls including building heights, bulk and setbacks to ensure that new built form in the Study Area does not dominate the landscape and helps preserve scenic views



Map 16: Topography & Views

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Contour - 1m. Interval
- Ridgeline
- RL: +100m.
- RL: 0m.
- Regional Views to Mountains from Road and Rail Corridors
- Views to Mountains from Public Open Spaces
- Local Views
- Development potentially blocking Mountain Views
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

NATURAL ENVIRONMENT

WATER MANAGEMENT

WATERWAYS

Within the Study Area are three watercourses, the South Creek and its tributaries Little Creek and Byrnes Creek. South Creek runs along most of the western boundary of the Study Area, flowing north towards the Hawkesbury River near Windsor. It is a unique natural asset offering cooling, biodiversity as well as opportunities for active and passive recreation.

Byrnes Creek is located to the south of the Great Western Highway and is in the form of a subsurface stormwater drainage system. The upstream part of Little Creek to the south of the train line is also in the form of a subsurface stormwater drainage system, however it has an open channel section through the industrial area north of the train line. The interfaces of all three creeks with their surroundings are largely underused and offer opportunities for improvement.

FLOODING AND STORMWATER INFRASTRUCTURE

Parts of the Study Area experience inundation resulting from a variety of causes. The lower reaches of South Creek serve as a large flood storage area during major flooding of the Hawkesbury-Nepean River system, hence floodwaters can 'back-up' along the creek from its confluence with the Hawkesbury River, leading to inundation beyond the area that would typically be flooded in local catchment events. Local flooding may also occur along the creeks.

Stormwater overland flow is a major cause of flooding in St Marys. Council's St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study and Plan (2020)* identifies that the Study Area has a significant number of stormwater pipes which flow full during 100% AEP, 50% AEP and 20% AEP storms. The existing pipes are planned for 20% AEP, 50% AEP or 100% AEP flood events only. With the pipe capacity exceeded, overland flooding may occur along roadways and through private properties. In the case of Little Creek, the lack of formal overland flow routes or easements result in most overland flows being conveyed through private properties.

Parts of the Study Area which are affected by 1% AEP flooding include the South Creek Park, the Great Western Highway, the car park of the St Marys Village shopping centre, St Marys Public School, Victoria Park, East Lane, Bennett Park and parts of Glossop Street. Such flooding may also impact Astley Park, Chapel Street and King Street.

In the case of a Probable Maximum Flood (PMF) event, a greater part of the Study Area would be inundated, particularly at the intersection of Queen Street, King Street and Carson Lane; the St Marys Village shopping centre site; along East Lane between Phillip and Chapel Streets; and St Marys Public School and Senior High School sites. In a PMF event, water is predicted to overtop a portion of the railway line.

However in terms of flood hazard, which takes into account flood depth and flow velocities in a 1% AEP event, a major part of the Study Area has relatively low hazard levels and is generally safe for vehicles, people and buildings. Low hazard, flood storage areas are observed in the car park of the St Marys Village shopping centre, St Marys Public School, East Lane and parts of Bennett Park. Flooding hazard is higher along South Creek and parts of the Great Western Highway. Majority of the industrial area has low hazard levels with only some parts of Forrester Road and Glossop Street identified as unsafe for vehicles, children and elderly in a 1% AEP flood event.

As per the South Creek Floodplain Risk Management Plan (2020), the flood affected areas in St Marys incur one of the greatest proportion of total damage cost to properties in the LGA. The St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study and Plan (2020)* identifies that flood management in St Marys may require stormwater upgrades including installing new pipes, adding detention basins and lowering natural surface levels in parks and reserves to reduce the depth of ponding. Any development or reconfiguration of topography will need to carefully consider overland flow paths and ensure they are not blocked. Any potential stormwater upgrades or Water Sensitive Urban Design (WSUD) approach throughout the Study Area will need a flood impact assessment to ensure no adverse impacts on the surrounding community. Moreover, any recommended/

proposed works within the South Creek corridor should not interfere with the creek flow conveyance nor be within the floodway and/or high hazard areas.

WATER SENSITIVE URBAN DESIGN

Within the Study Area are several impervious areas including roads, footpaths and off-street car parks. Despite the recognised benefits of WSUD, St Marys does not have much investment in such features except the detention basin in Bennett Park.

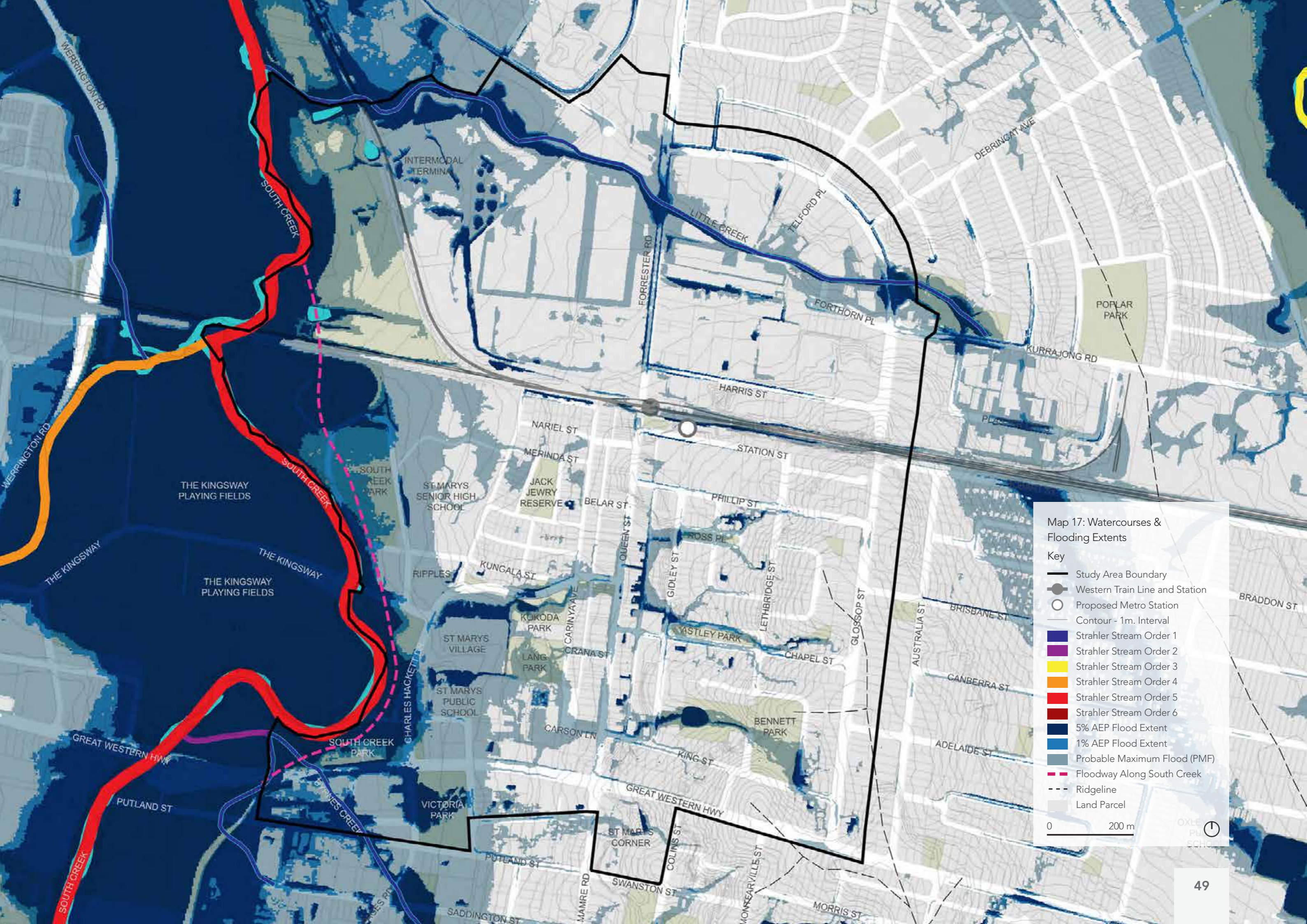
KEY STRENGTHS

- Watercourses in the Study Area offer cooling, ecological benefits and potential for enhanced recreational opportunities

KEY CHALLENGES

- Existing stormwater system is at capacity, aggravating overland flow and limiting growth of the centre
- Some watercourses are in the form of concrete canals or subsurface drainage systems
- Different types of flooding impact various parts of the Study Area and impact safety and resilience
- Extensive impervious areas lacking WSUD features

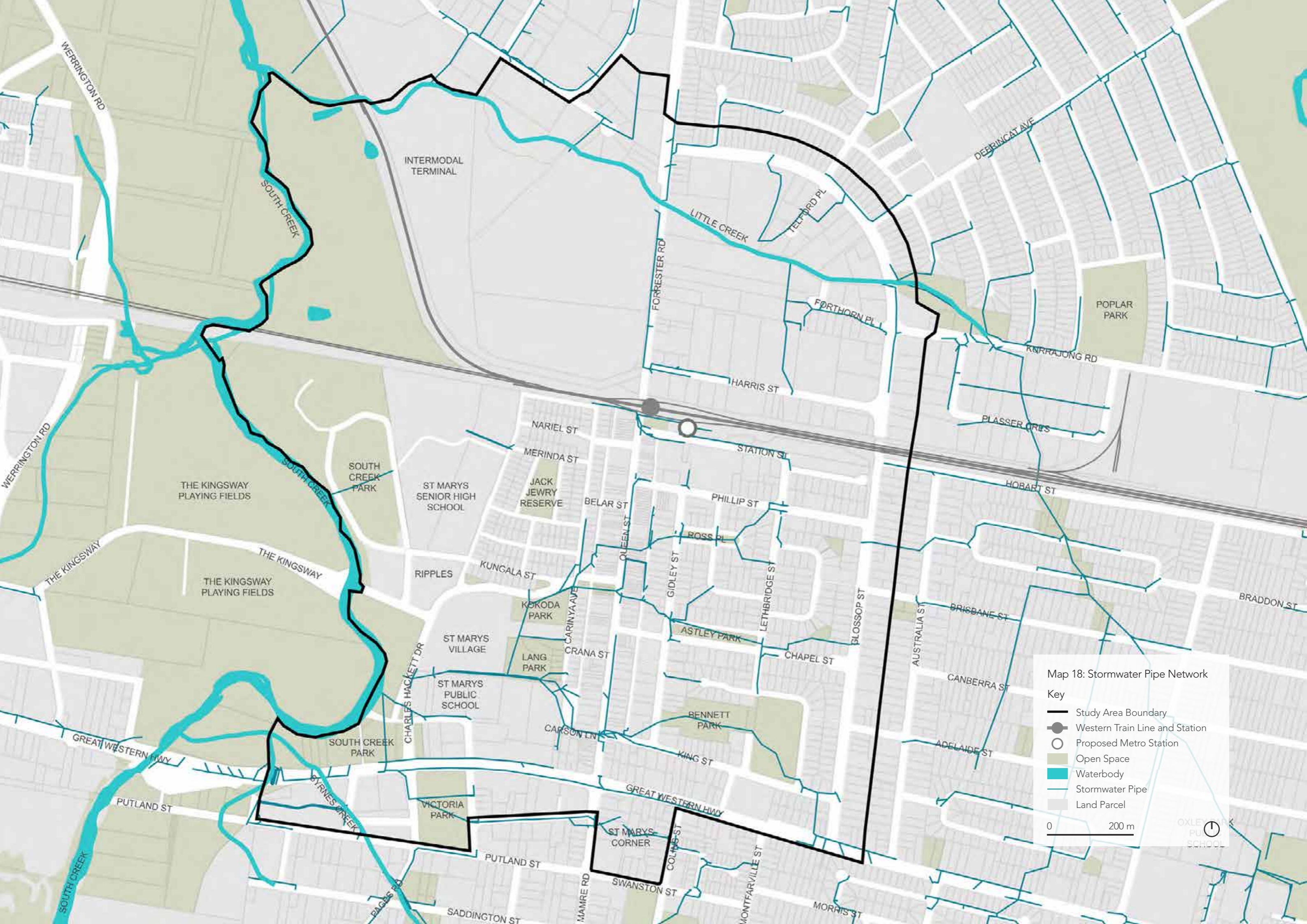
*Note: St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study is currently under review. The outcomes of this updated study should be addressed in future planning for St Marys, such as the St Marys Town Centre Master Plan.



Map 17: Watercourses & Flooding Extents








- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Contour - 1m. Interval
 - Strahler Stream Order 1
 - Strahler Stream Order 2
 - Strahler Stream Order 3
 - Strahler Stream Order 4
 - Strahler Stream Order 5
 - Strahler Stream Order 6
 - 5% AEP Flood Extent
 - 1% AEP Flood Extent
 - Probable Maximum Flood (PMF)
 - Floodway Along South Creek
 - Ridgeline
 - Land Parcel
- 0 200 m





Map 18: Stormwater Pipe Network

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  Stormwater Pipe
-  Land Parcel

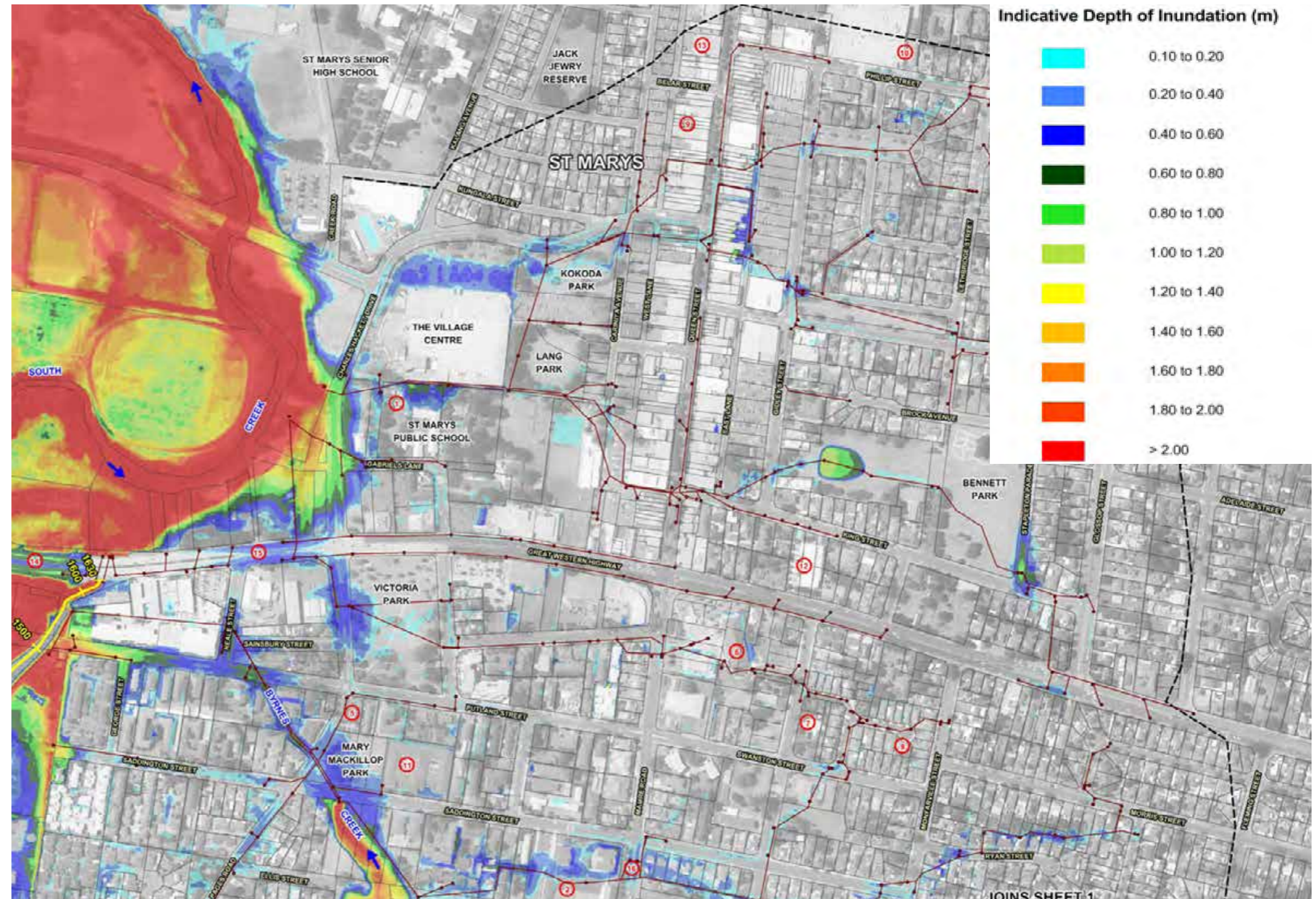
0 200 m

OXLEY
PUBLIC
SCHOOL

NATURAL ENVIRONMENT

Map 19 represents the level of flood depths in a 1% AEP flooding (envelope of local catchment and South Creek flooding) as per the St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study & Plan, 2020)*.

Most of the areas in the Town Centre to the east of Charles Hackett Drive have flood depths up to 0.6m, except the detention basin in Bennett Park and the area to its south east. The southern part of Charles Hackett Drive as well as the Kingsway and areas along South Creek experience flood depths beyond 1m.



Map 19: South Creek and Byrnes Creek Catchment - 1% AEP Flood Depths (Source: St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study & Plan, 2020)*



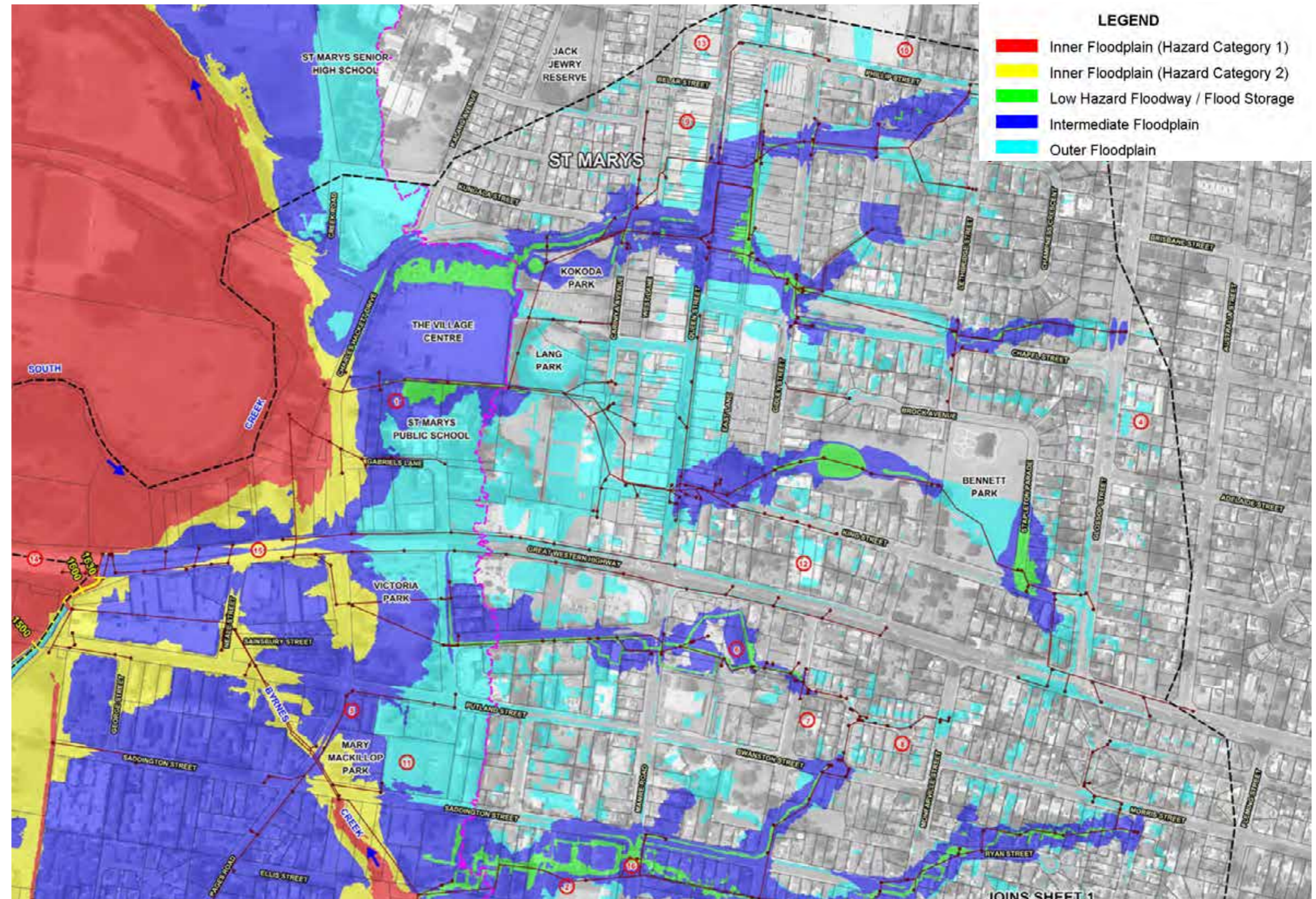
*Note: St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study is currently under review. The outcomes of this updated study should be addressed in future planning for St Marys, such as the St Marys Town Centre Master Plan.

NATURAL ENVIRONMENT

Maps 20, 21 and 22 and the table below represent the levels of flood hazard across the Study Area identified by various floodplain risk management studies and strategies:

Hazard Category	Description
H1	Generally safe for vehicles, people and buildings. Relatively benign flood conditions
H2	Unsafe for small vehicles
H3	Unsafe for vehicles, children and the elderly
H4	Unsafe for vehicles and people
H5	Unsafe for vehicles and people. All building types vulnerable to structural damage. Some less robust building types vulnerable to failure
H6	Unsafe for vehicles and people. All building types considered vulnerable to failure

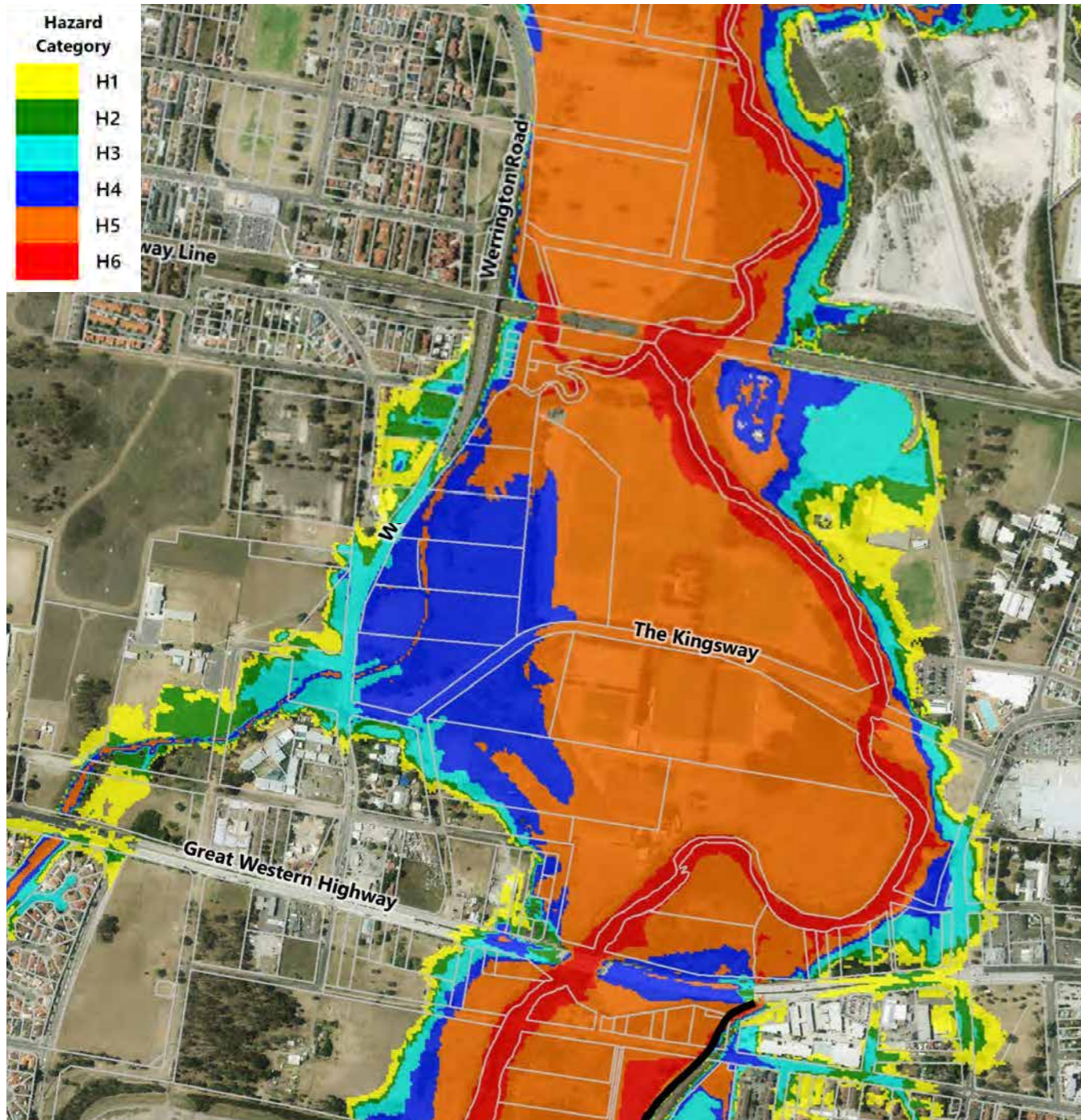
Table 4: Flood Hazard Categories (Draft Little Creek Catchment Floodplain Risk Management Study & Plan, 2021)



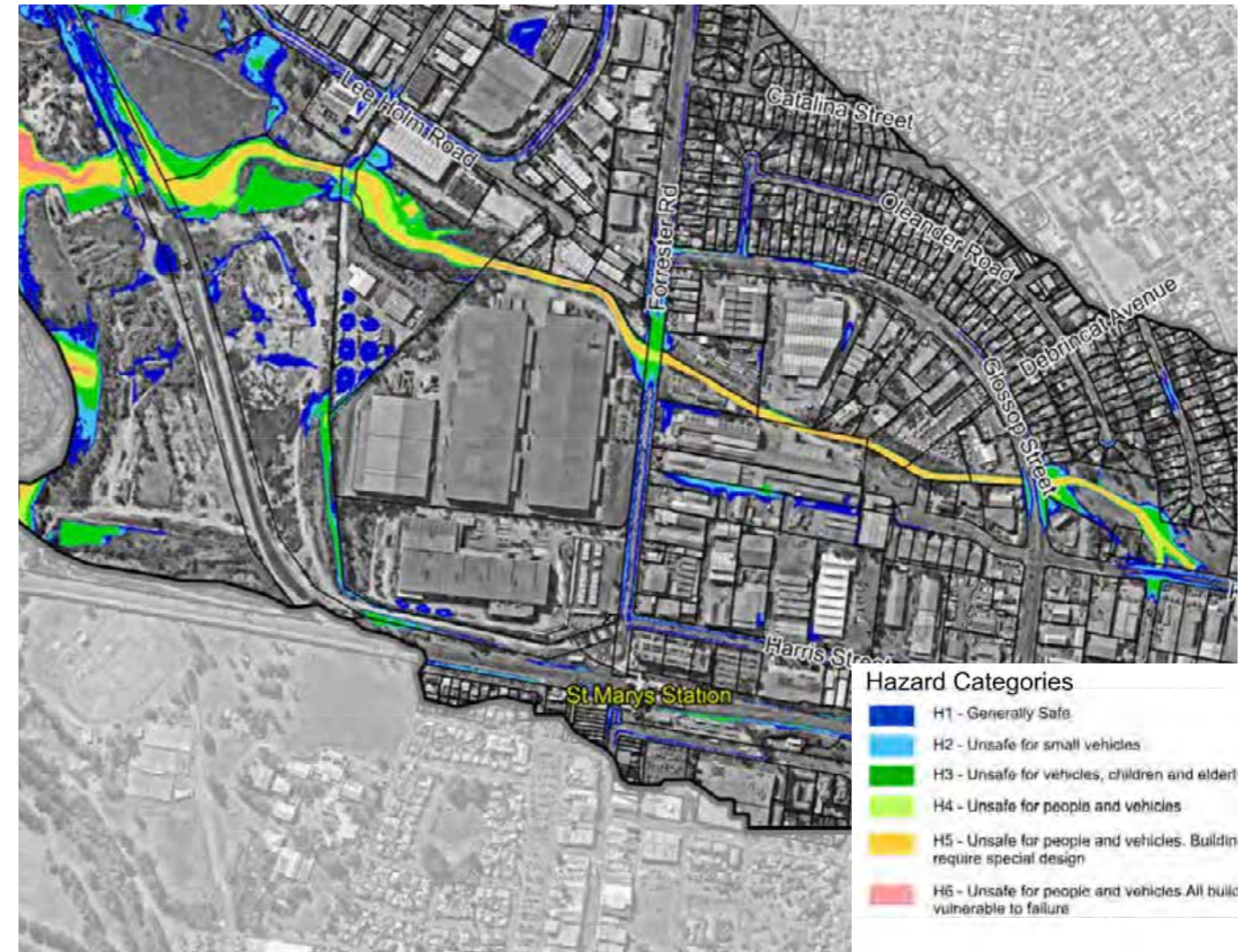
Map 20: South Creek and Byrnes Creek Catchment - 1% AEP Flood Hazard (Source: St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study & Plan, 2020)*

*Note: St Marys (Byrnes Creek) Catchment Floodplain Risk Management Study is currently under review. The outcomes of this updated study should be addressed in future planning for St Marys, such as the St Marys Town Centre Master Plan.

NATURAL ENVIRONMENT



Map 21: South Creek Catchment - 1% AEP Flood Hazard (Source: South Creek Floodplain Risk Management Plan, Feb. 2020)



Map 22: Little Creek Catchment - 1% AEP Flood Hazard (Source: Little Creek Catchment Floodplain Risk Management Study and Plan - Public Exhibition Draft Summary Report, May 2021)



NATURAL ENVIRONMENT

URBAN HEAT

St Marys is situated within the lower altitudes of the Sydney Basin, with the elevated terrain of the Blue Mountains to its west. The basin has significant effects on local climate. The location and topography of the area means that sea breezes from the east do not reach St Marys, which leads to consistently higher temperatures and lower rainfall than in the more coastal parts of Greater Sydney.

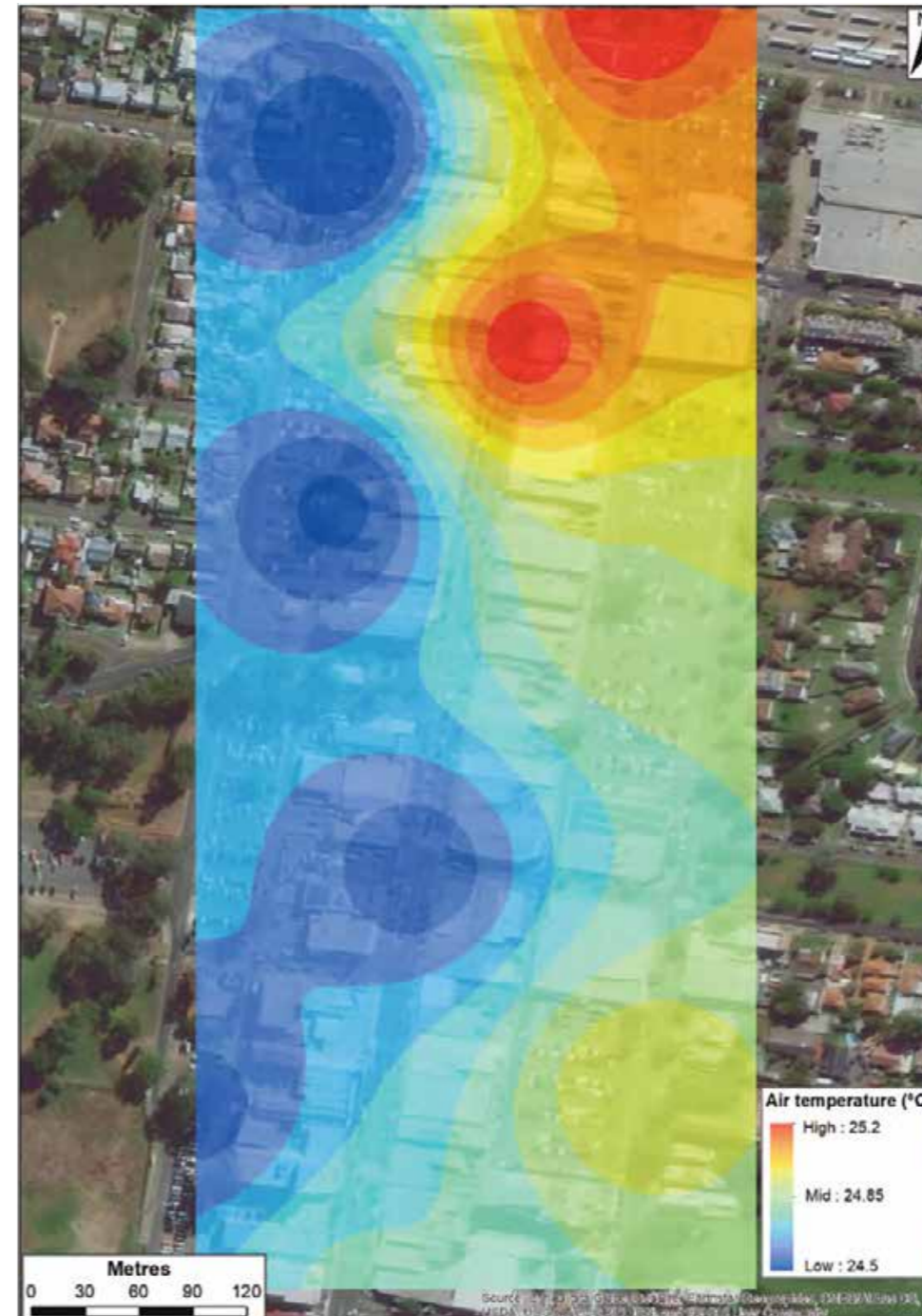
Urban Heat Island Effect is a real challenge across Penrith LGA and particularly in St Marys, which means that air temperatures in the urban core are significantly higher than those in adjacent rural lands, especially during the night.

Two sources of information have been reviewed for putting together this analysis of urban heat. One is Council's localised 'Benchmarking Summer Heat Across Penrith New South Wales' (2020) study, whereas the other one is the NSW DPE's SEED portal (2020).

INFORMATION FROM COUNCIL'S BENCHMARKING STUDY (2020)

Council's benchmarking study identified that the urban core of St Marys remained up to 2.4°C warmer during the night compared to the surrounding residential and open areas between 19 December 2019 and 20 January 2020. This study also identified that St Marys experiences some of the warmest night time temperatures during heatwaves in the LGA.

The study found that the air temperatures across the urban core of St Marys varied considerably during summer. The warmest area was around the train station where mean summer air temperatures were 23.6°C at the pedestrian crossing in front of the station, 23.5°C at 45 Station Street and 23.7°C at the measurement location on upper Queen Street. The highest air temperature in December 2019 (46.2°C) was also measured in front of the train station. At the intersection of Queen Street and Belar Street, south of the train station, mean monthly air temperatures were consistently high during January (mean: 25.6°C) and February (mean: 23.8°C). Mean summer air temperatures in the west of Queen Street were considerably cooler than those measured in the east and north.



Map 23: Mean summer air temperatures across the Town Centre of St Marys. Data recorded between 14 Dec 2019 and 3 Feb 2020 (Source: Benchmarking Summer Heat Across Penrith New South Wales, 2020)

NATURAL ENVIRONMENT

INFORMATION FROM THE NSW DPE'S SEED PORTAL (2020)

As per the Urban Heat Island dataset on the NSW DPE's SEED portal (2020) measured for the summer of 2015-2016, the hottest parts of the Study Area were around car parks, the train station and the commercial and industrial areas, which experience temperatures over 9°C warmer than the average temperature of non-urban vegetated areas (for example, heavily wooded areas of national parks) within Greater Sydney.

On the other hand, areas with the presence of water either on the surface or stored in the soil profile and areas with permeable and grassed ground cover and tree cover were found to have much lower temperatures. This included the South Creek corridor and irrigated fields such as The Kingsway Playing Fields.

The Heat Vulnerability Index dataset on the NSW DPE's SEED portal (2020) which calculates a Heat Vulnerability Index (HVI) Score for statistical areas shows that a large part of the Study Area is extremely vulnerable (more sensitive, less adaptive and more exposed) to the adverse effects of heat. This index analyses the Land Surface Temperature data with vegetation cover data and socio-economic data from the 2016 ABS Census.

The landscape of St Marys is dominated by asphalted and impervious surfaces including roads, footpaths and surface car parks. Tree canopy cover to shade these mostly dark surfaces is minimal. The ability to plant shade trees is constrained due to the presence of overhead wires as well as land contamination.

Urban heat is a key consideration for the natural environment as well as the wellbeing of residents. Penrith City Council's Cooling the City Strategy (2015) identifies that the following areas should generally be prioritised for protection against heat:

- bus stops/shelters
- public exercise areas
- west facing pedestrian areas around schools
- car parks
- footpaths, verges, roads, roundabouts and intersections (road reserves)

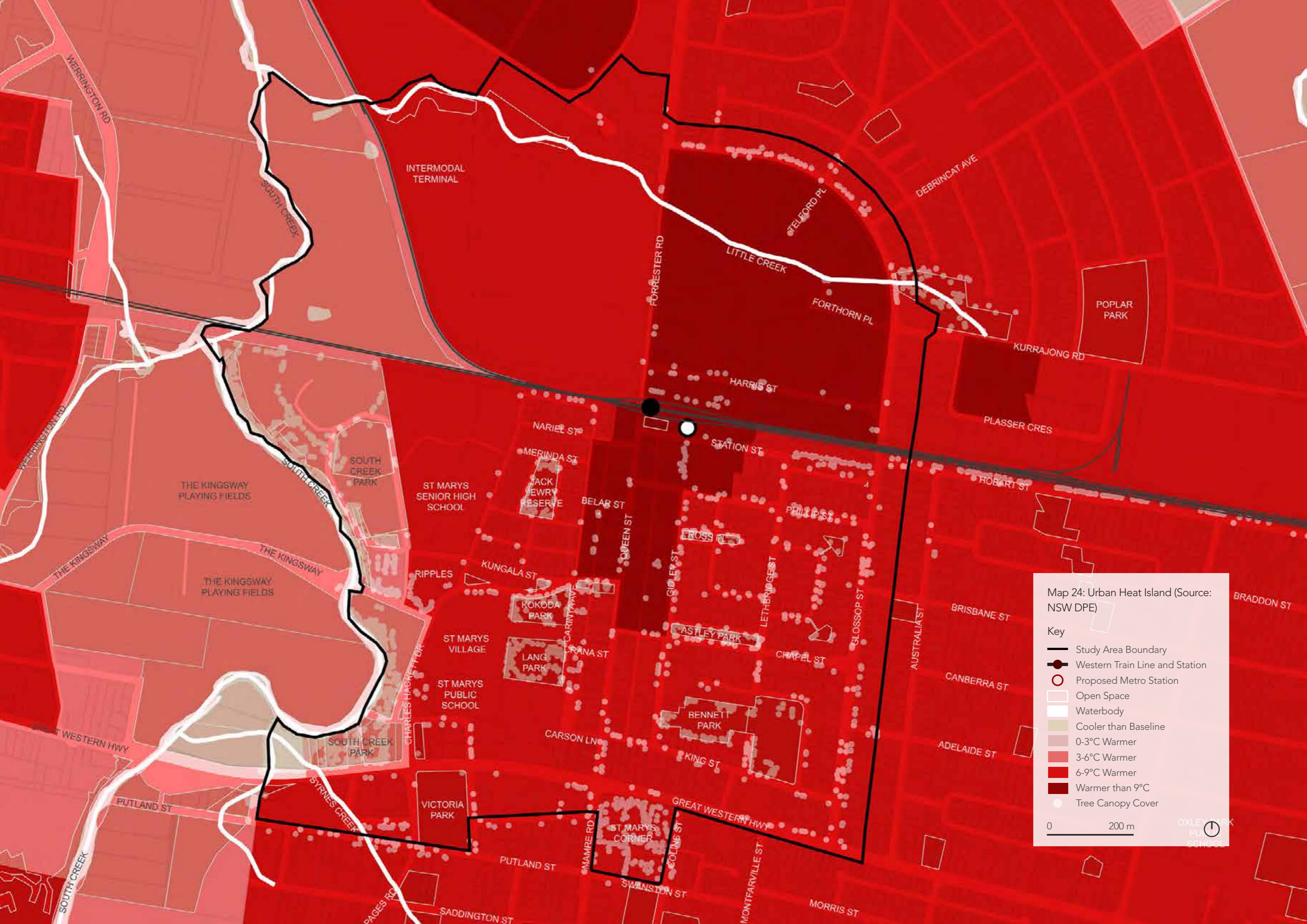
It is an opportunity for the Structure Plan to identify actions that will aim to reduce the effects of urban heat and improve local liveability in St Marys Town Centre, in conjunction with the draft Heat Island controls

KEY STRENGTHS

- Several key sites in the hottest parts of the Study Area (such as the off-street surface car parks) are publicly owned, thus government can be the catalyst for mitigating the heat island effect and developing strong controls to increase tree canopy cover and WSUD
- Draft Heat Island DCP controls will contribute to addressing the issue of heat in the Town Centre

KEY CHALLENGES

- St Marys experiences the Urban Heat Island Effect which impacts local liveability and health. The Town Centre was 2.4°C warmer during the night compared to the surrounding residential areas in the summer of 2019
- St Marys experiences some of the warmest night time temperatures during heatwaves in the LGA
- The Study Area has high concentrations of populations who are extremely vulnerable to the adverse effects of heat; reflected through a high Heat Vulnerability Index of 5/5 (most vulnerable)
- The Study Area has extensive hardscapes and a low tree canopy cover which aggravate the issue. Overhead power lines and land contamination limit the ability to plant trees and increase shade



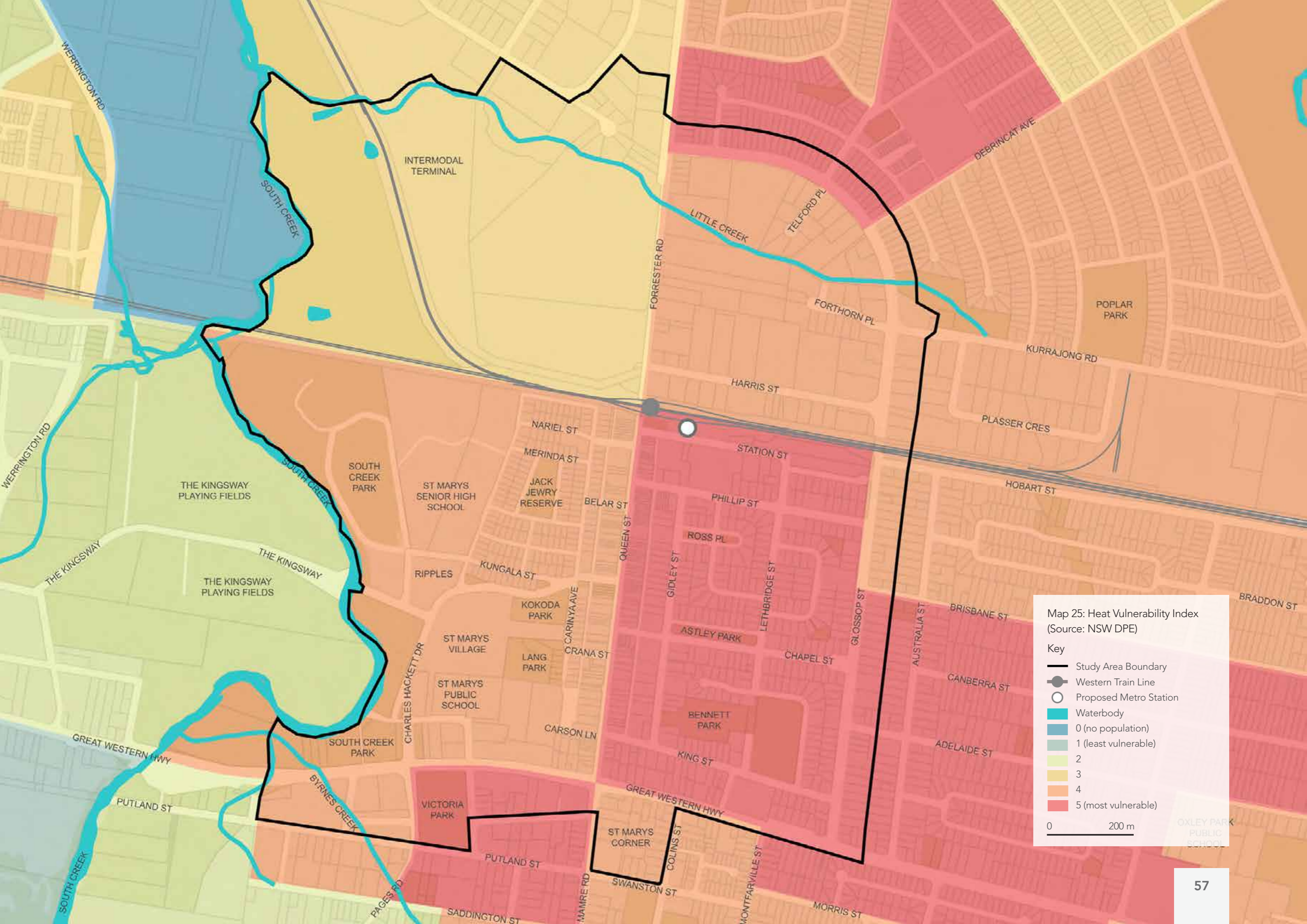
Map 24: Urban Heat Island (Source: NSW DPE)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Cooler than Baseline
- 0-3°C Warmer
- 3-6°C Warmer
- 6-9°C Warmer
- Warmer than 9°C
- Tree Canopy Cover

0 200 m

OXLEY PARK PUBLIC SCHOOL



Map 25: Heat Vulnerability Index
(Source: NSW DPE)

Key

- Study Area Boundary
- Western Train Line
- Proposed Metro Station
- Waterbody
- 0 (no population)
- 1 (least vulnerable)
- 2
- 3
- 4
- 5 (most vulnerable)

0 200 m



Fig. 41: Bennett Park

NATURAL ENVIRONMENT

OPEN SPACES

Council's Local Strategic Planning Statement (2020) states the importance of parks and open spaces for recreation, exercise and social interaction.

Open spaces in St Marys Town Centre described in this section have been assessed in terms of their types (hierarchy), functions and accessibility. Additionally, each existing open space is discussed in further detail. The assessment of open space types (hierarchy) and functions is based on the criteria in Council's Sport and Recreation Strategy (2020) and the NSW Government Architect Draft Greener Places Guideline.

The Study Area has several open spaces of different scales and functions. The key ones within the Study Area boundaries are:

- South Creek Park
- Bennett Park
- Victoria Park
- Jack Jewry Reserve
- Kokoda Park
- Lang Park
- Astley Park
- Ross Place
- Coachmans Park

The majority of the open spaces in the Town Centre are green open spaces (grassed areas). The only paved plaza type spaces are Coachmans Park and the Southern Plaza of the Train Station on Station Street. The existing open space provision in St Marys Town Centre offers opportunities for cooling and embedding WSUD features.

There are several parks and sporting spaces beyond the Study Area boundaries as follows:

- Citywide parks and sporting spaces such as the Kingsway Playing Fields in Werrington, Cook Park in St Marys, and Boronia Park and Robin Wiles Park in North St Marys
- District parks (and district park - sized open spaces) such as Poplar Park in North St Marys and Monfarville Reserve and the open space to the north of Cook Park in St Marys

These open spaces have not been included in the analysis as they are beyond the scope of the Structure Plan.

Aside from parks and reserves, the Study Area includes approximately 27.5ha of council owned car parks (community land). Studies indicate that some car parks in St Marys are underused (discussed further in the 'Street Network & Private Vehicular Infrastructure' section).

The Study Area also includes Queen Street which offers a great public domain in the form of spacious footpaths with good solar access and fairly continuous awnings, new seating, planting and public art.

The St Marys Town Centre Structure Plan will take into account the analysis of existing open spaces in the centre as well as the initiatives proposed by Council's endorsed Green Grid Strategy (2021) and the Sport and Recreation Strategy (2020) to develop further initiatives for open space in St Marys Town Centre.

NATURAL ENVIRONMENT

OPEN SPACE TYPES - HIERARCHY

The analysis of open space types in the Study Area follows Council's classification of open space types as per the Sport and Recreation Strategy (2020) and the NSW Government Architect Draft Greener Places Guideline. This document refers to open spaces types as follows:

- citywide parks (minimum size: 20ha; rate: 1ha/1,000 people)
- district parks (minimum size: 2ha; average size 5-10ha; rate: 1ha/1,000 people; catchment: 400m)
- local parks (minimum size: 0.5ha; rate: 0.2ha/1,000 people; catchment: 400m)
- linear park (minimum width: 20m; catchment: 800m)
- pocket park (size: 0.15ha < & <0.5ha; rate: 0.2ha/1,000 people; catchment: 200m)
- sporting space (minimum size: 10ha; rate: 1.4ha/1,000 people; catchment: 2,000m)
- Open Space in road reserve/ urban green space

As per these criteria, the Study Area has a large citywide open space along the South Creek, three district parks, three local parks, one linear park and five pocket parks, in addition to other green open spaces.

CITWIDE PARKS

South Creek Park is a large citywide park located within the Study Area, to the east of South Creek and south of the train line up to the Great Western Highway.

A part of the South Creek Park is classified as a sporting space, explained further in this section. The area to the north of the train line is zoned RE1 (Public Recreation). However, this is an encumbered green open space, privately owned by Pacific National (NSW) Pty Ltd and cannot be accessed.

South Creek Park is located around 500m to the west of Queen Street. Although a key asset of St Marys and a part of the district's hydrological, ecological and recreational grid, it is not easily accessible from Queen Street due to the presence of large, impermeable land parcels without pedestrian through-site links. The interface of South Creek with its surroundings is currently underused and offers opportunities for improvement. As such, it feels like the St Marys Town Centre currently turns its back on South Creek.

Council's Sport and Recreation Strategy (2020) prescribes actions around developing South Creek Park as a major open space with recreational destinations to support development in St Marys and Werrington, and improving active transport access between the open space network and public transport infrastructure.

DISTRICT PARKS

The study area has three district parks - Victoria Park, Bennett Park and a green space along Little Creek to the north of the train line at the intersection of Glossop Street and Kurrajong Road. Victoria Park is a heritage listed item and a critical community space south of the Great Western Highway. Bennett Park is an important recreational green open space in St Marys with magnificent views to the mountains. The eastern part of Bennett Park has been planned to be upgraded within the next five years to deliver a skate park and an integrated mixed recreation playspace. The green space at the intersection of Glossop Street and Kurrajong Road currently has no major facilities, apart from trees, shade and informal play and relaxation.

LOCAL PARKS

Local parks in the Study Area include Jack Jewry Reserve, Lang Park and Kokoda Park. Jack Jewry Reserve was established at the time when the historic Duration Cottages were built in St Marys and has important historic significance, including some original mature trees. Lang Park and Kokoda Park were reclassified from community to operational lands in 2016.

LINEAR PARKS

Astley Park is the only linear park within the Study Area. This park is located along Chapel Street, extending between Gidley Street and Lethbridge Street, and offers views to the Blue Mountains.

SPORTING SPACES

Sporting spaces in the Study Area are located in the South Creek Park. These include the St Marys Tennis Centre, Blair Oval (an athletic field), Penrith BMX track, a rugby field and Ripples Leisure Centre and Hydrotherapy Centre.

POCKET PARKS/ PLAZAS

The Study Area has five pocket park - sized open spaces. Two out of these are plazas - the Southern Plaza of the St Marys train station and Coachmans Park. There are two triangular parks in the Study Area along Champness Crescent, located on leftover land parcels. These are hard to access, and opportunities thus exist to rethink their use.

OPEN SPACE IN ROAD RESERVE/ URBAN GREEN SPACE

Besides the above, the Study Area has some smaller open spaces which are located alongside or as part of the road reserve. These do not serve a recreational function but contribute to increasing greenery in the Town Centre. The green open space along Ross Place has been counted in this category since it is not formally designated as an open space.



Map 26: Existing Open Space Types - Hierarchy

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Waterbody
 - Citywide Park (>20ha)
 - District Park (min. 2ha; avg. 5-10ha)
 - Local Park (0.5-2ha)
 - Linear Park (min. 20m wide)
 - Sporting Space
 - Pocket Park/ Plaza (0.15<0.5ha) and smaller open space
 - Open Space within Road Reserve/ Urban Green Space
 - Open Space - Private Ownership
 - Open Space outside Study Area
 - Land Parcel

0 200 m

OXLEY PARK
PUBLIC
SCHOOL

NATURAL ENVIRONMENT

OPEN SPACE FUNCTIONS

Classification of open spaces by function is based on the level of amenities provided in the open space. For the purpose of this report, the following definitions have been adopted:

ACTIVE RECREATIONAL SPACES

These are spaces where structured recreational activities can take place, e.g. playgrounds, kick and play fields, etc. There are currently four open spaces in the Study Area that can be classified as active recreational spaces. These include Victoria Park, Kokoda Park, Bennett Park East and Jack Jewry Reserve which include formal play equipment for kids.

SPECIALIST SPORTING SPACES

Specialist sporting spaces relate to areas where the primary role is of supporting organised sport, including training and competition. Such as a space could include sportsfields, athletics tracks, courts and other sports surfaces, as well as buildings where there is a recreation or sport function, for example, sports halls and aquatic centres.

The South Creek Park is the only space in the Study Area which offers specialist sporting facilities, along with passive recreational spaces. These include the St Marys Tennis Centre which has 12 tennis courts (8 of which have been recently refurbished), Blair Oval (an athletic field), a rugby field, Penrith BMX track and Ripples

Leisure Centre and Hydrotherapy Centre. During events and competitions, facilities in the South Creek Park attract high visitation, with nearly 400,000 visitors recorded yearly. The BMX track supports BMX competitions and training and attracts Sydney-wide visitation, particularly from young people. The rugby field is used by local groups for activities, as well as for training by other organisations.

The activities and amenity of the South Creek Park may be significantly impacted due to the proposed future Outer Sydney Orbital corridor (motorway and freight rail corridor) passing through the precinct. Council may need to investigate alternative locations for some of the existing sporting facilities and look at creative ways to deliver recreational activities in the area.

PASSIVE RECREATIONAL SPACES

Passive recreation refers to spaces which provide a setting for informal play, relaxation and social interaction. These include parks and plazas.

Passive recreational parks are unstructured open spaces with no formal active recreational component, but which provide facilities such as barbecues, seating spaces, etc. Passive recreational parks in the Study Area include parts of the South Creek Park, Bennett Park West, Lang Park, Astley Park, Ross Place and the space at the intersection of Glossop Street and Kurrajong Road. In South Creek Park, such spaces are predominantly located to the south of the

Kingsway. Lang Park currently provides opportunities for unstructured sporting activity (cricket) and small community events.

The various district and local parks in St Marys Town Centre are generally located away from Queen Street. Although assisting in serving local populations, they present opportunities to improve in terms of their diversity of activities, amenity, surveillance as well as spaces to sit in the shade. Being well established, infrastructure within the parks has aged over time, some of which has reached the end of its useful life requiring renewal or replacement. Increased service standards to improve the amenity and appearance of some of the parks would be beneficial. Soil contamination is a key constraint in St Marys, which requires additional capital works budget for site remediation when proposing upgrades to open spaces.

Overall, the level of use across the different parks has been observed to be low. To enhance use, contamination would need to be managed, tree cover increased and a more diverse range of activities offered in parks for different ages and abilities. Amenity and maintenance of parks would also need to be improved.

Council's Sport and Recreation Strategy (2020) recommends developing mixed recreational spaces in the LGA with St Marys being one of the priority areas to provide for multi-purpose activities, multi-age participants and all abilities.

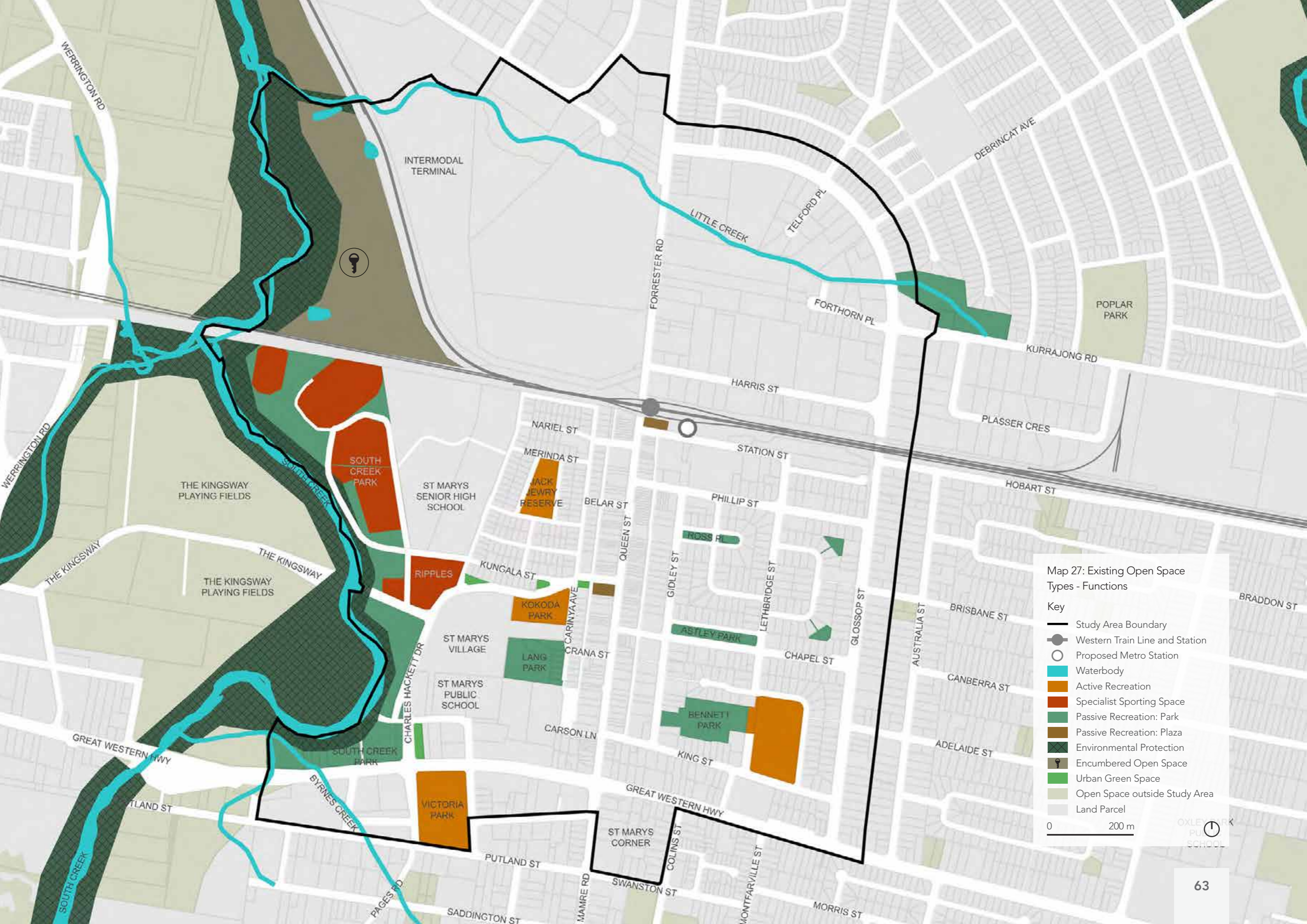
Passive recreational plazas are spaces that accommodate social gatherings and events for general community use. Coachmans Park and the Southern Plaza of the St Marys train station are two such spaces. Coachmans Park provides a civic focus for Queen Street. It is activated on its one side and offers a diversity of seating and public art. Council's Sport and Recreation Strategy (2020) recommends integrating such key civic spaces with public transport opportunities and existing development.

ENVIRONMENTAL PROTECTION

This includes areas of biodiversity and ecological significance and protection. The Study Area currently has such an area along South Creek, zoned in the Penrith LEP 2010 as C2 Environmental Protection.

URBAN GREEN SPACE

These are spaces that do not serve a recreational function but contribute to increasing greenery in the Town Centre.



Map 27: Existing Open Space Types - Functions

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Waterbody
 - Active Recreation
 - Specialist Sporting Space
 - Passive Recreation: Park
 - Passive Recreation: Plaza
 - Environmental Protection
 - Encumbered Open Space
 - Urban Green Space
 - Open Space outside Study Area
 - Land Parcel

0 200 m



NATURAL ENVIRONMENT

QUANTUM OF OPEN SPACE PROVISION

A calculation of current open space provision has been undertaken using rates prescribed in Council's Sport and Recreation Strategy, 2020 and the NSW Government Architect Draft Greener Places Guideline.

This revealed that the Study Area is well served by citywide parks and sporting spaces (South Creek Park, Kingsway Playing Fields and Boronia Park) within/ around its extents.

The analysis in the table on the right reveals that based on the current population of the Study Area (2021 population), it is well served with respect to the areas of district parks (within and around its boundaries), local parks, linear parks and pocket parks.

Open Space Category	Name of Open Space	Area today in ha		Total Area required (in ha) per category in 2021 as per Sport and Recreation Strategy ²
		Per park	Per category	
District Park (1ha/1,000ppl, min. size 2ha, avg. size 5ha-10ha, catchment 400m) ¹	Bennett Park	3.658	14.74	3.7
	Victoria Park	2.084		
	Park at the corner of Glossop St and Kurrajong Rd	2.117		
	Open space north of Cook Park	3.49		
	Poplar Park	3.39		
Local/ Park (0.2ha/1,000 ppl, min size 0.5ha, catchment 400m)	Lang Park	1.364	3.542	0.74
	Kokoda Park	0.842		
	Linear Park (0.2ha/1,000 ppl, min. width 20m, catchment 800m)	0.836		
	Astley Park	0.5		
Pocket Park/ Plaza (0.2ha/1,000 ppl, size 0.15ha < & <0.5ha, catchment 200m) and smaller open spaces ²	Space at the corner of Great Western Hwy & Charles Hackett Dr	0.18	0.745	
	Southern Plaza of Station	0.166		
	Coachmans Park	0.139		
	Triangular Park North	0.131		
	Triangular Park South	0.129		
Open Space in Road Reserve ²	Ross Place	0.29	0.47	
	Spaces along Charles Hackett Dr	0.18		

Table 5: Current Open Space Provision in the Study Area for district, local and linear parks and pocket parks/plazas (Rates based on Council's Sport and Recreation Strategy, 2020 and NSW Government Architect Greener Places Guideline. Rates for the pocket parks/plazas are based on the Greener Places Guideline)

¹For this calculation, all district park-sized open spaces within and up to 400m from the Study Area boundaries have been included. Citywide open spaces and sporting spaces have not been included.

²Minimum area required in 2021/2041 has not been calculated for pocket parks/ plazas and open spaces in road reserve.

NATURAL ENVIRONMENT

SOUTH CREEK PARK



Fig. 42: South Creek Park

- **Type and size:** Citywide park and Sporting Space – Area 18.6ha south of the train line
- **Role and function:** Specialist sporting facilities – 12 tennis courts, 1 rugby field, 1 athletics field and BMX tracks, Ripples and Hydrotherapy Centre; Community and Road Education Scheme (CARES) facility; passive green spaces, walkway and interface with South Creek
- **Potential users:** Youth, school and sporting groups, other users
- **Location:** 850m from the train station and 500m from Queen Street
- **Street frontage:** 41%

VICTORIA PARK



Fig. 43: Victoria Park

- **Type and size:** District park – Area 2.084ha
- **Role and function:** Heritage listed active recreational open space with multi-age play equipment, lawn, historical monument, amenity block, seating (park benches and picnic tables) and BBQs
- **Potential users:** Parents with young children, retirees
- **Location:** 1,180m from the train station and 340m from Queen Street
- **Street frontage:** 100%

BENNETT PARK



Fig. 44: Bennett Park

- **Type and size:** District park – Area 3.658ha
- **Current role and function:** Eastern part is active recreational space with multi-age play equipment, kids loop bike track and seating (park benches). Western part is a passive recreational open space with lawn and a detention basin
- **Future role and function:** Eastern part planned to be upgraded within the next five years to deliver a skate park and an integrated mixed recreation playspace
- **Potential future users:** Youth, parents with young children
- **Location:** 750m from the train station and 80-100m from Queen Street
- **Street frontage:** 51%

JACK JEWRY RESERVE



Fig. 45: Jack Jewry Reserve

- **Type and size:** Local park – Area 0.846ha
- **Role and function:** Active recreational open space with basic kids play equipment (swings), lawn and seating (park benches)
- **Potential users:** Parents with young children, retirees
- **Location:** 300m from the train station, 210m from Queen Street, 400m from St Marys Village shopping centre
- **Street frontage:** 100%

NATURAL ENVIRONMENT

LANG PARK



Fig. 46: Lang Park

- **Type and size:** Local park – Area 1.364ha
- **Role and function:** Passive recreational open space with lawn, historical monument and seating (park benches)
- **Potential users:** Shoppers
- **Location:** 660m from the train station, 100m from Queen Street and adjacent to St Marys Village shopping centre
- **Street frontage:** 23%

KOKODA PARK



Fig. 47: Kokoda Park

- **Type and size:** Local park – Area 0.842ha
- **Role and function:** Active recreational open space with multi-age play equipment, lawn, amenity block and seating (park benches and picnic tables)
- **Potential users:** Shoppers, parents with young children
- **Location:** 500m from the train station, 115m from Queen Street and adjacent to St Marys Village shopping centre
- **Street frontage:** 54.5%

ASTLEY PARK



Fig. 48: Astley Park

- **Type and size:** Linear Park – Area 0.5ha
- **Role and function:** Passive recreational open space with lawn and seating (park benches)
- **Potential users:** Pedestrians walking along Chapel Street/ nearby residents
- **Location:** 510m from the train station and 120m from Queen Street
- **Street frontage:** 100%

ROSS PLACE



Fig. 49: Ross Place

- **Type and size:** Open space in the road reserve – Area 0.29ha
- **Role and function:** Passive recreational open space with lawn
- **Potential users:** Nearby residents
- **Location:** 315m from the train station and 120m from Queen Street
- **Street frontage:** 100%

NATURAL ENVIRONMENT

TRIANGULAR POCKET PARKS ALONG CHAMPNESS CRESCENT



Fig. 50: One of the triangular pocket parks

- **Type and size:** Pocket parks – combined area 0.26ha
- **Role and function:** Passive recreational open spaces with lawn
- **Potential users:** Nearby residents
- **Location:** 550m from Queen Street
- **Street frontage:** 0%

COACHMANS PARK



Fig. 51: Coachmans Park

- **Type and size:** Pocket Park/ Plaza – Area 0.139ha
- **Role and function:** Passive recreational plaza with pavement, seating (formal seating – park benches, picnic tables and informal seating – parapet walls, steps, etc.), performance space, commercial outdoor dining and public art
- **Potential users:** Shoppers, nearby residents
- **Location:** 400m from the train station, 260m from St Marys Village shopping centre and adjacent to Queen Street
- **Street frontage:** 67.5%

SOUTHERN PLAZA OF TRAIN STATION



Fig. 52: Southern Plaza of the train station

- **Type and size:** Pocket Park/ Plaza – Area 0.166ha
- **Role and function:** Passive recreational plaza with pavement, seating (park benches), historical monument and building, public telephone, and flanked by bus and taxi zones
- **Potential users:** Train and bus passengers, shoppers
- **Location:** Adjacent to train station and Queen Street
- **Street frontage:** 53%

NATURAL ENVIRONMENT

OPEN SPACE ACCESSIBILITY

The Study Area has a range of open space types, however it is important to understand how easily and quickly residents can access these open spaces from their homes.

Council's Sport and Recreation Strategy (2020) recommends that in infill areas, high density developments should be within 200m from local parks and low to medium density developments should be within 400m from local parks. Using this approach, two types of analyses were undertaken to understand accessibility of existing open spaces: accessibility to all existing public open spaces (Map 28) and accessibility to areas zoned RE1 and C2 (Map 29).

The analysis took into account the locations and entries of the existing parks, plazas and other public open spaces in the Study Area, mapping the spatial extents covered within their 200m and 400m walking paths. For pocket parks and open spaces within road reserves, a catchment of 200m was used.

ACCESSIBILITY OF EXISTING PUBLIC OPEN SPACE

Map 28 reveals that most of the residential areas within the Study Area boundaries have access to public open spaces within 200m walking distance. Since some of these areas currently have low to medium density developments, an increase in their residential density in the future would mean that they would still enjoy access to open space within 200m unless any open spaces are re-purposed.

However, there are certain areas that do not enjoy open space access under the current open space provisions, such as that to the south of the transport interchange, along parts of Station Street and the industrial lands between Forrester Road and Glossop Street. It should be noted that Sydney Metro will be providing a plaza outside the metro station along Station Street as well as along Harris Street which might help service the currently underserved areas.

ACCESSIBILITY OF RE1 AND C2 ZONED AREAS

When discussing open space accessibility, it is important to look at zoning controls to understand the future of the current parks and reserves.

Not all existing parks and reserves in the Study Area have been zoned for public recreation (RE1) or environmental conservation (C2) in the Penrith LEP 2010. What this means is that some lots that are currently serving open space functions (for example, Ross Place) could be re-purposed in the future.

Hence, another layer of mapping was undertaken taking into account the same accessibility criteria as earlier (200m and 400m) but for only the RE1 and C2 zoned sites in the Study Area. This revealed that a large area to the south of Station Street could potentially be underserved by open space if the existing open spaces in that area are not zoned RE1.

Accessibility to open space within 200m also reduces in the area around Lang Park, as Lang and Kokoda parks have been reclassified from community to operational lands and are not zoned RE1. It should be ensured in the future that open space access be provided in this area within 200m.

Council's Green Grid Strategy (2021) has proposed a local green grid network across the Penrith LGA to improve access to public open space. In order to improve the accessibility to open spaces in St Marys in the future, the Structure Plan will consider and build upon the local green grid network to link the existing open spaces in the Town Centre.

NATURAL ENVIRONMENT

KEY STRENGTHS

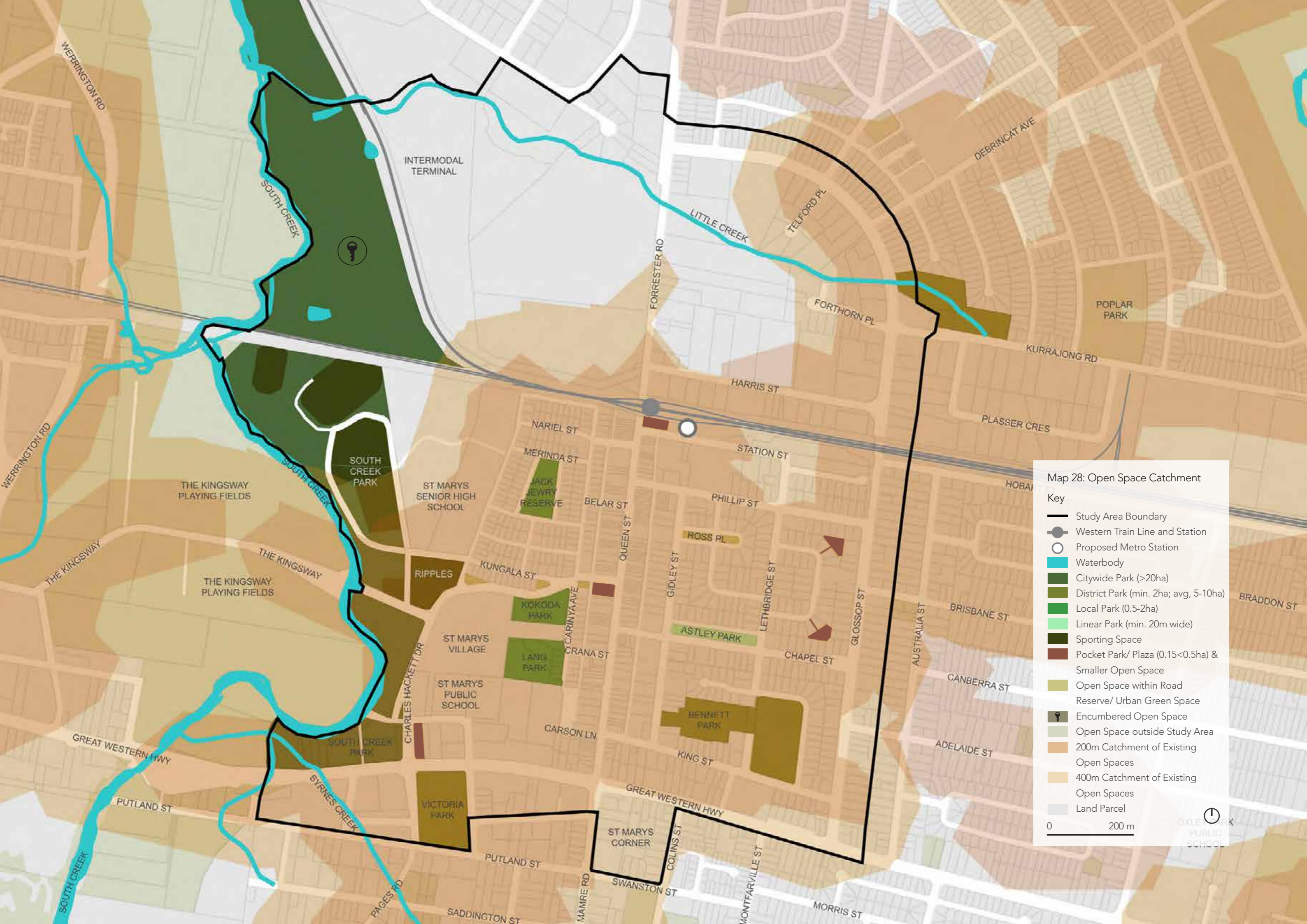
- Good quantum and distribution of green open spaces of varying types
- The South Creek Park is a major regional open space and a key asset that offers specialist sporting facilities and draws extensive footfall during competitions/ events
- The BMX track supports BMX competitions and training and attracts Sydney-wide visitation, particularly from young people
- Coachmans Park is a key civic space offering opportunities to sit, stay and socialise
- Bennett Park is planned to be upgraded in the next five years

KEY CHALLENGES

- Some parts of the Study Area are underserved by open space under current provisions
- Not all existing public open spaces have been zoned for Public Recreation 'RE1' or Environmental Conservation 'C2' in the Penrith LEP 2010, leading to a potential gap in open space provision if any existing public open spaces are re-purposed in the future
- South Creek Park is not easily accessible from Queen Street
- The interfaces of existing creeks are underused and creeks are not treated as assets
- RE1 zoned land north of the rail line is encumbered (privately owned); and the open space at the intersection of Glossop Street and Kurrajong Road does not provide active recreation or facilities such as BBQ toilets
- Decrease in community land with some open spaces being classified as operational lands
- There is a lack of high-quality civic park/central park
- Two small triangular-shaped small open spaces are located on leftover land parcels, are difficult to access and not safe
- Flood / storm inundation of the sports infrastructure is a constraint
- The Outer Sydney Orbital will potentially impact the South Creek Park - reducing its size and function at a time when the population of the Town Centre is expected to grow
- Land contamination of public open spaces across the Study Area is a constraint, which can increase the cost of improvements and construction by approximately 50%
- Open spaces across the centre lack activity diversity and amenity and need upgrades/ improvement. In some instances, the community mentioned a need for better-maintained open spaces



Fig. 53: Kokoda Park



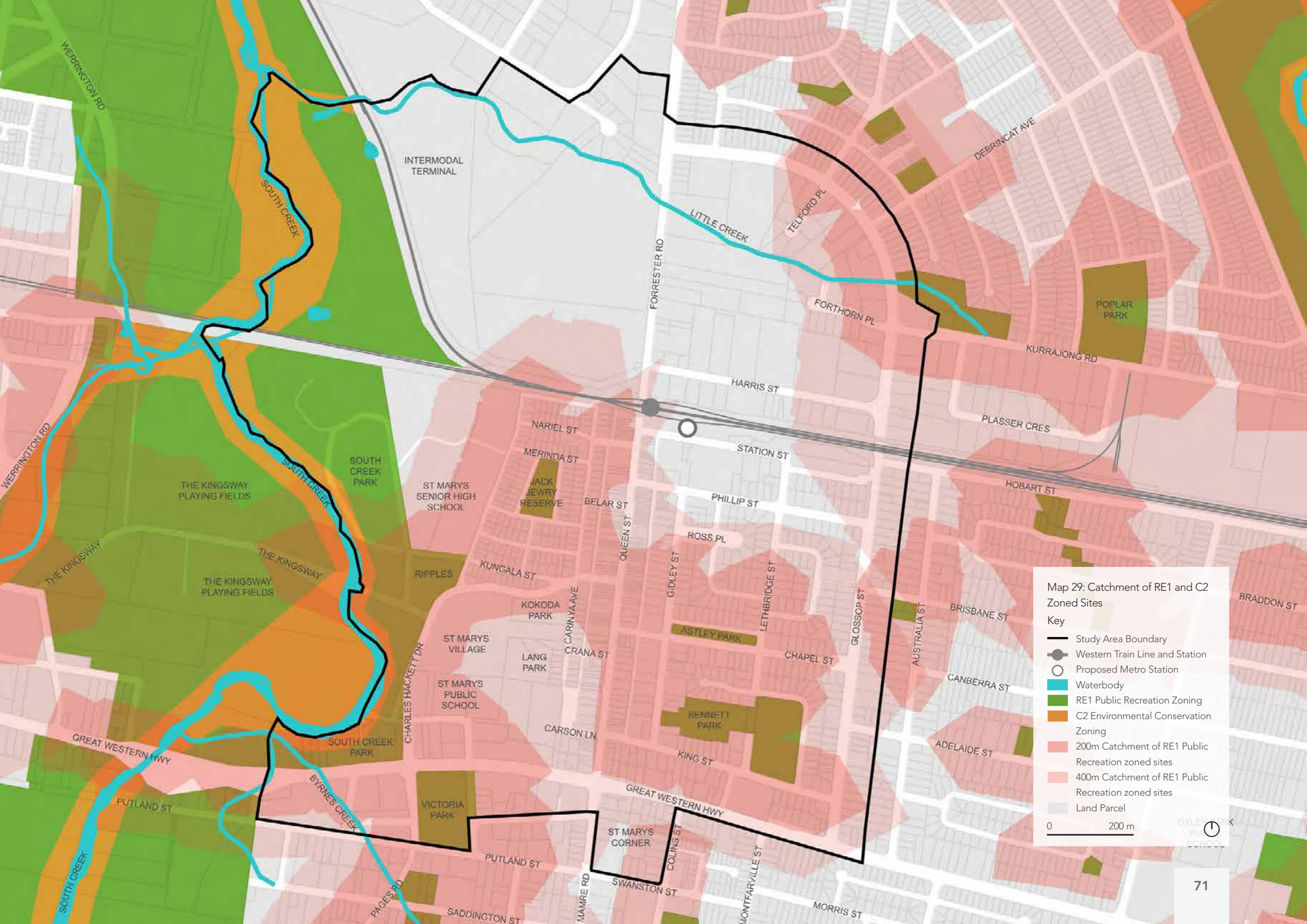
Map 28: Open Space Catchment

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Waterbody
- Citywide Park (>20ha)
- District Park (min. 2ha; avg, 5-10ha)
- Local Park (0.5-2ha)
- Linear Park (min. 20m wide)
- Sporting Space
- Pocket Park/ Plaza (0.15<0.5ha) & Smaller Open Space
- Open Space within Road Reserve/ Urban Green Space
- Encumbered Open Space
- Open Space outside Study Area
- 200m Catchment of Existing Open Spaces
- 400m Catchment of Existing Open Spaces
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL



Map 29: Catchment of RE1 and C2 Zoned Sites

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Waterbody
-  RE1 Public Recreation Zoning
-  C2 Environmental Conservation Zoning
-  200m Catchment of RE1 Public Recreation zoned sites
-  400m Catchment of RE1 Public Recreation zoned sites
-  Land Parcel

0 200 m



NATURAL ENVIRONMENT

TREE CANOPY & BIODIVERSITY

TREE CANOPY

The Study Area has a good supply of green open spaces with varying levels of tree canopy cover. In 2021, the NSW DPE released information about tree canopy cover by analysing 2019 vegetation imagery and digital aerial photography from Geoscape Australia. This data available on DPE's SEED Portal revealed that the suburb of St Marys has a tree canopy cover of 17.48% whereas North St Marys has a canopy cover of 16.92%. Both of these are lower than the Penrith LGA average canopy cover of 21.29% and half of the Greater Sydney average of 35.29%. Refer to Map 30.

The Study Area has an average tree canopy of 13%. Tree canopy is particularly low around the train station, Queen Street, off-street surface car parking areas to the south of the rail line and in the industrial area to the north. Canopy cover is however over 30% in some of the areas along Lethbridge Street, St Marys Public School and South Creek. These areas feel lush and green and make a significant contribution to liveability and sustainability of the Town Centre.

Table 6 provides the area and percentage of tree canopy cover in public and private lands within the Study Area. The canopy cover within private lands is 11%. There are opportunities for private land to contribute to an increased tree canopy in St Marys. The public land has an overall canopy cover

of about 15%. Canopy cover within parks is 22%, but this varies across parks. Streets have a very low tree canopy cover of 6%. There are opportunities for significantly increasing tree canopy within the streets, working around issues such as overhead power lines.

Being an established older area, issues such as underground unforeseen/unidentified services and site contamination exist in the Study Area. These issues impact the ability to undertake planting and/or the size of tree canopies. Power lines should be aimed to be laid underground wherever possible.

Council's Green Grid Strategy (2021) proposes LGA wide actions for improving tree canopy cover and creating green active transport links within public land. It recommends implementing the Green Grid to St Marys Town Centre and linking it to sport, recreation and play areas. It also recommends redevelopment proposals to incorporate the Green Grid. There are great opportunities to increase canopy cover in St Marys within public and private land in order to reduce the effects of urban heat and enhance local liveability and public health.

The health of the existing canopy is an important aspect to consider. The effects of a changing climate i.e., heat and drought have impacted canopy health and will continue to impact over time. In increasing the tree canopy in St Marys, species selection (the right tree in the right place) will play a key role.

Category	Area within Study Area boundary (ha)	Area of tree canopy	% of tree canopy
Public Land	95	14	15
Parks (active and passive)	32	7	22
Streets	36	2	6
Other	38	5	13
Private Land	152	17	11
Total (including some area beyond the boundary)	247	31	13

Table 6: Tree Canopy Cover in the Study Area (percentages are rounded off to nearest decimal)

KEY STRENGTHS

- Parts of the Study Area, particularly along South Creek, Champness Crescent and around St Marys Public School have high tree canopy
- Parks in the Study Area have a higher tree canopy cover compared to other public lands

KEY CHALLENGES

- Low and variable tree canopy cover of 13% in the Study Area which is lower than the Penrith LGA average canopy cover of 21.29% and much less than half of the Greater Sydney average of 35.29%
- Streets have a very low tree canopy cover of 6%
- Tree planting is impacted by issues such as underground unforeseen/unidentified services and site contamination
- Overhead power lines impact tree canopy size and result in poor visual amenity of some streets and open spaces
- Ongoing impacts of heat and drought on canopy health



Map 30: Tree Canopy Percentage
(Source: NSW DPE)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Waterbody
- 0-10%
- 10-20%
- 20-30%
- 30-40%
- 40-100%

0 200 m

OXLEY PARK
PUBLIC
SCHOOL

NATURAL ENVIRONMENT

BIODIVERSITY

The NSW DPE has mapped threatened ecological communities on the SEED Portal. This reveals that the Study Area has threatened ecological communities along the South Creek corridor, along parts of Little Creek and in Victoria Park.

The NSW DPE has prepared the Draft Cumberland Plain Conservation Plan (draft CPCP), a strategic conservation plan that maps native vegetation and threatened ecological communities in Western Sydney. According to the data available on the Spatial Viewer of the draft CPCP, there is native vegetation located within the Study Area, particularly along the South Creek. Native vegetation is fragmented, with some located in Jack Jewry Reserve and also scattered along areas to the east of Glossop Street and to the south of the Great Western Highway.

As per the draft CPCP, native vegetation in this area falls under five threatened ecological communities, namely, Cooks River Castlereagh Ironbark Forest, Cumberland Plain Woodland, Moist Shale Woodlands, River-flat Eucalyptus Forest and Swamp Oak Forest.

The Study Area has several potential threatened fauna species including those that may use the area for foraging habitat. This includes the green and golden bell frog, little eagle, square-tailed kite, gang-gang cockatoo, glossy black-cockatoo, white-bellied sea-eagle, little lorikeet, swift parrot, turquoise parrot, barking owl, powerful owl, masked owl, sooty owl, speckled warbler, varied sittella, dusky woodswallow, grey-headed flying-fox, yellow-bellied sheath-tail-bat, eastern coastal free-tailed bat, large-eared pied bat, eastern false pipistrelle, southern myotis, greater broad-nosed bat, little bent-winged bat, large bent-winged bat and the Cumberland Plain land snail.

KEY STRENGTHS

- Presence of native vegetation and threatened ecological communities in parts of the Study Area
- Potential presence of threatened fauna species in the Study Area








KEY CHALLENGES

- Fragmentation of native vegetation



Map 31: Threatened Ecological Communities (Source: NSW DPE)

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Waterbody
-  Threatened Ecological Communities
-  Open Space
-  Land Parcel

0 200 m



MOVEMENT

St Marys Town Centre has a well established urban structure and is well serviced by private vehicular infrastructure including car parking. Investment in the new Sydney Metro Western Sydney Airport line will enhance metropolitan public transport connectivity of St Marys, but there is a need to improve regional bus connectivity.

St Marys has the potential to be highly walkable, however, at present its public domain is of a mixed quality, with areas beyond Queen Street lacking dedicated infrastructure, amenity and permeability, which inhibit modal shift and the take-up of active transport.

This chapter looks at movement comprehensively, covering public transport, private vehicular transport and car parking. It also assesses walking and cycling at a local scale and active transport at the 15-minute neighbourhood scale.



Fig. 54: St Marys train station; Fig 55: Bus stop on Queen Street; Fig. 56: Freight movement along Glossop Street; Fig 57: Bus moving along Queen Street; Fig 58: Queen Street

MOVEMENT

PUBLIC TRANSPORT

The following sections discuss train, metro and bus connectivity and its associated infrastructure in the Study Area.

TRAIN AND METRO SERVICES

St Marys is serviced by the T1 Western rail line, which provides an eastern connection into Sydney CBD via Parramatta and Blacktown, and a western connection to Penrith and Emu Plains. The Blue Mountains Line Intercity trains do not stop at St Marys. Trains have a frequency of up to 15 services per hour in the peak hours, with 6-10 eastbound and 5 westbound services in the morning peak and 4 eastbound and 5-10 westbound services in the afternoon peak. Council has sought quadruplication of the railway line between St Marys and Penrith to be brought forward to ensure that effective services can be provided from Penrith.

The Sydney Metro Western Sydney Airport line will see St Marys connecting to the Western Sydney Airport and Aerotropolis by 2026. Beyond the committed Stage 1 metro line from St Marys to the Aerotropolis Core, further stages under investigation may include connections to Tallawong via Marsden Park and Schofields, and to the south of the Aerotropolis.

St Marys will be the only interchange between the rail and metro services on the Stage 1 metro route. Investment in the metro is expected to enhance regional connectivity and also potentially catalyse local urban renewal in St Marys. Council is

working closely with Sydney Metro to deliver an optimised outcome for the St Marys metro station and the surrounding precinct.

BUS SERVICES

St Marys has an important role as an interchange for suburbs further away from the train line. A bus interchange adjacent to the train station provides local bus services. Multiple bus routes from Mamre Road and Charles Hackett Drive converge on Queen Street, and bus stops are located along Queen Street, Charles Hackett Drive, Glossop Street and the Great Western Highway. Private bus operators under contract with TfNSW provide bus services in the Penrith LGA.

There are 13 regular bus routes that connect St Marys train station and the Town Centre to areas such as Penrith, Mount Druitt, Erskine Park, St Clair and Bella Vista. These routes typically operate at a 30 minute interval during peak hours and 30 to 60 minute intervals during off-peak hours. Regional bus connectivity has been identified as an issue across the Town Centre, with a low frequency of bus services. The north side of the railway station has only two bus services per hour, with connectivity quite poor particularly to the north and across the LGA boundary with Blacktown.

The community in the suburbs of St Marys and North St Marys has quite low mode shares of public transport to work (16% and 13.1% respectively, ABS Census 2016). However, it also has a lower car ownership

of 1.5 motor vehicles/dwelling across the two suburbs compared to 2 motor vehicles/dwelling across the LGA, which coupled with low public transport mode share may indicate barriers to accessing and seeking employment.

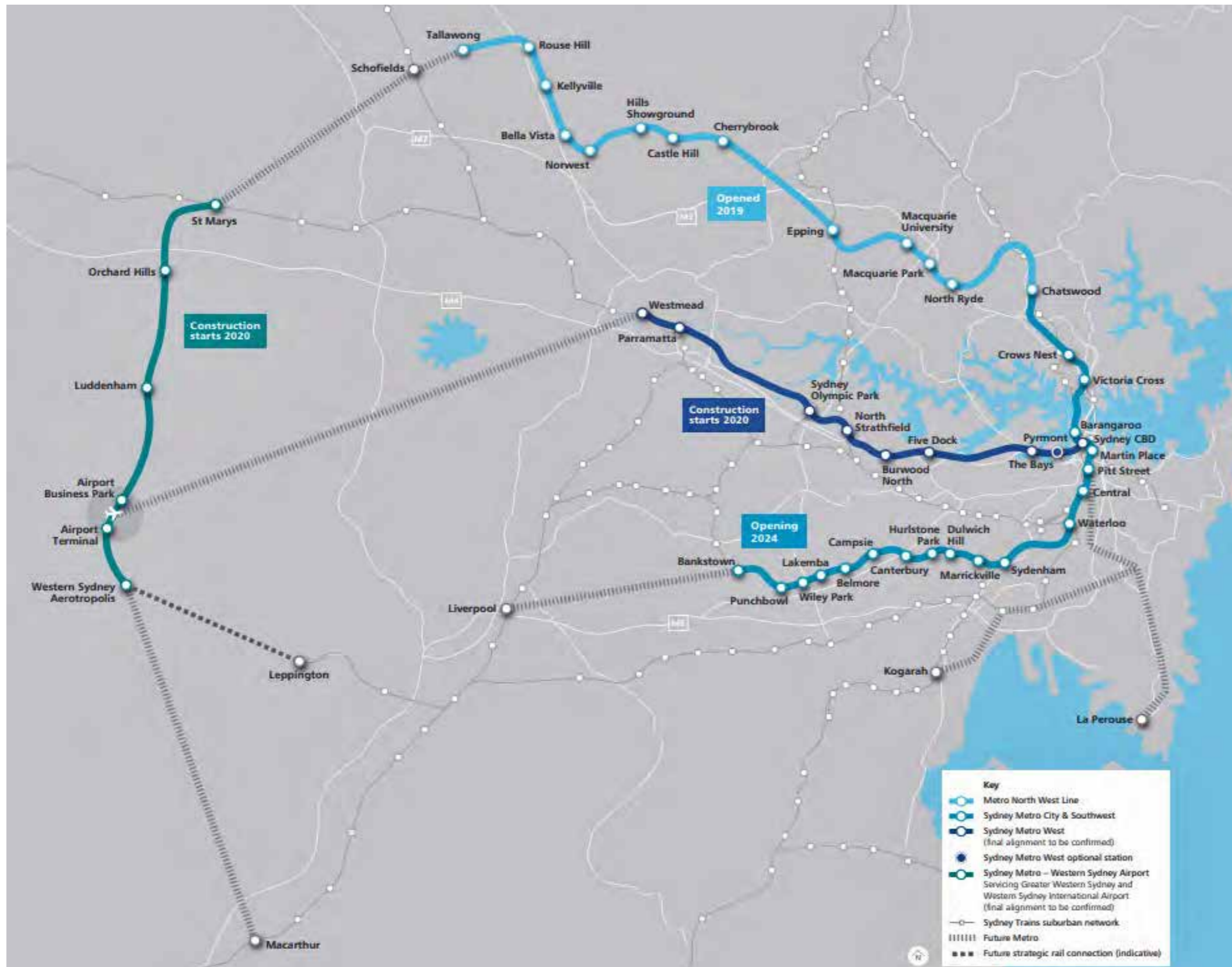
There is a significant opportunity to encourage higher public transport ridership in St Marys, and one of the ways to do so is to improve the accessibility of public transport nodes by providing high quality and well-shaded active transport infrastructure.

KEY STRENGTHS

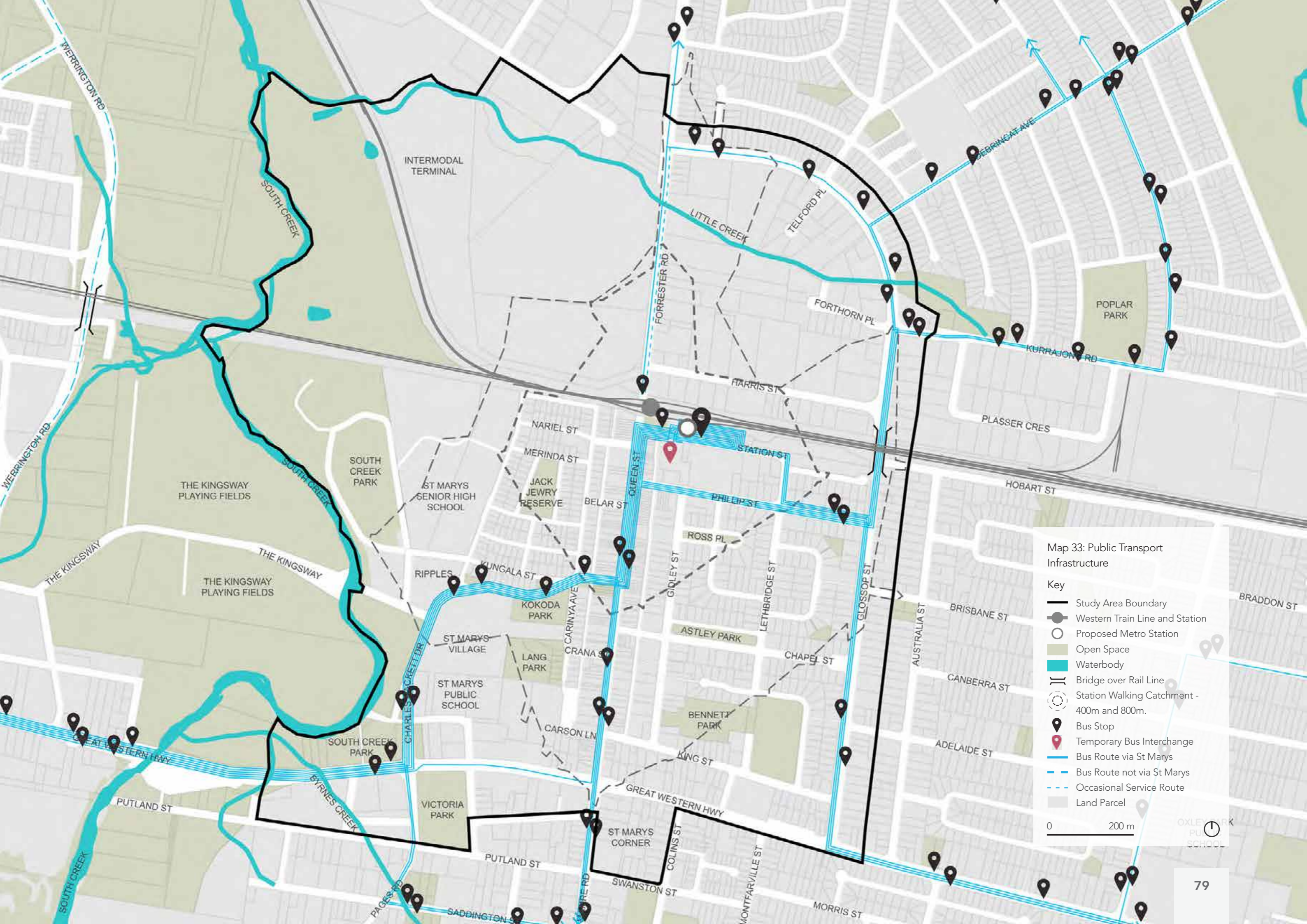
- Good frequency of eastbound and westbound trains during peak hours
- Investment in the Sydney Metro Western Sydney Airport line will improve St Marys' regional connectivity and catalyse local urban renewal
- Proximity to the Quarter and short travel time to the Airport/ Aerotropolis employment area

KEY CHALLENGES

- Bus services need improvement. Regional bus connectivity is poor and has low frequency services
- The railway line is a physical barrier for north-south connectivity to and from the Town Centre. The existing overbridge does not provide easy, safe and pleasant cross-rail access
- The North St Marys' community has poor connectivity to the train station and lower car ownership and public transport mode shares, indicating barriers to accessing regional jobs
- Some medium density areas are located beyond a 10-minute walk to train/metro stations
- Queen Street and Charles Hackett Drive are dominated by bus movement, impacting local walking and cycling amenity



Map 32: Sydney Metro and Sydney Trains network across Greater Sydney showing regional connectivity of St Marys (Source: Sydney Metro)



Map 33: Public Transport Infrastructure

- Key**
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - Bridge over Rail Line
 - Station Walking Catchment - 400m and 800m.
 - Bus Stop
 - Temporary Bus Interchange
 - Bus Route via St Marys
 - Bus Route not via St Marys
 - Occasional Service Route
 - Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

MOVEMENT

PRIVATE VEHICULAR MOVEMENT

The Study Area has an established 19th century urban structure. The Great Western Highway and Glossop Street are busy vehicular movement corridors which also serve as freight routes. Queen Street has a key place function but is also a busy vehicular thoroughfare. Other important roads within the centre from a private vehicular movement perspective include Phillip Street, Charles Hackett Drive and The Kingsway. Streets and lanes such as Gidley Street, Carinya Avenue, East Lane and West Lane provide access to off-street public car parks. The lanes also provide access to delivery services for the businesses along Queen Street.

Traffic counts were conducted throughout the Town Centre by Council in December 2018. This revealed that the Great Western Highway which serves east-west traffic and Glossop Street which serves north-south traffic recorded up to 2,500 vehicles per hour in both directions during the AM peak and 3,000 vehicles per hour in the PM peak. Queen Street and Charles Hackett Drive serve as the main connector roads through town with both roads having approximately 650 vehicles per hour in the AM peak and 800 vehicles per hour in the PM peak. This is complemented with Chapel Street and Phillip Street as the main east-west thoroughfares with 300 and 400 vehicles per hour in the AM peak respectively and 500 and 600 vehicles per hour in the PM peak respectively.

Phillip Street and Charles Hackett Drive being collector roads, a portion of Queen Street between these roads has in turn become a collector road by default. During site inspections, rat running behaviour of motorists was observed along Phillip Street, a portion of Queen Street, Charles Hackett Drive and The Kingsway. Some of the traffic volume observed on Charles Hackett Drive could be destination traffic to/from the St Marys Village shopping centre. The Structure Plan should consider maintaining access to the St Marys Village shopping centre for private vehicles. However, overall, rat running behaviour of motorists, which detrimentally impacts the amenity and safety of active transport users and the activation and economic vitality of nearby businesses, should be discouraged.

As per the Infrastructure Australia Congestion Audit (2016 data) of traffic volumes and congestion, it is understood that the current roads in and around the Study Area operate well with minimal congestion for the needs of the current population. Given the population for St Marys is anticipated to grow significantly, a more considered movement network is required to meet demand to 2041. The Structure Plan will provide a movement framework to allow St Marys to grow in an orderly and sustainable way. This will be refined in the future St Marys Town Centre Master Plan through more detailed street network planning and traffic modelling*.

A key consideration in terms of vehicular movement in St Marys is the proposed north-south Outer Sydney Orbital, a future motorway and freight rail line connecting Box Hill in the north and the Hume Motorway near Menangle in the south of Greater Sydney. The impacts of this corridor need to be investigated.

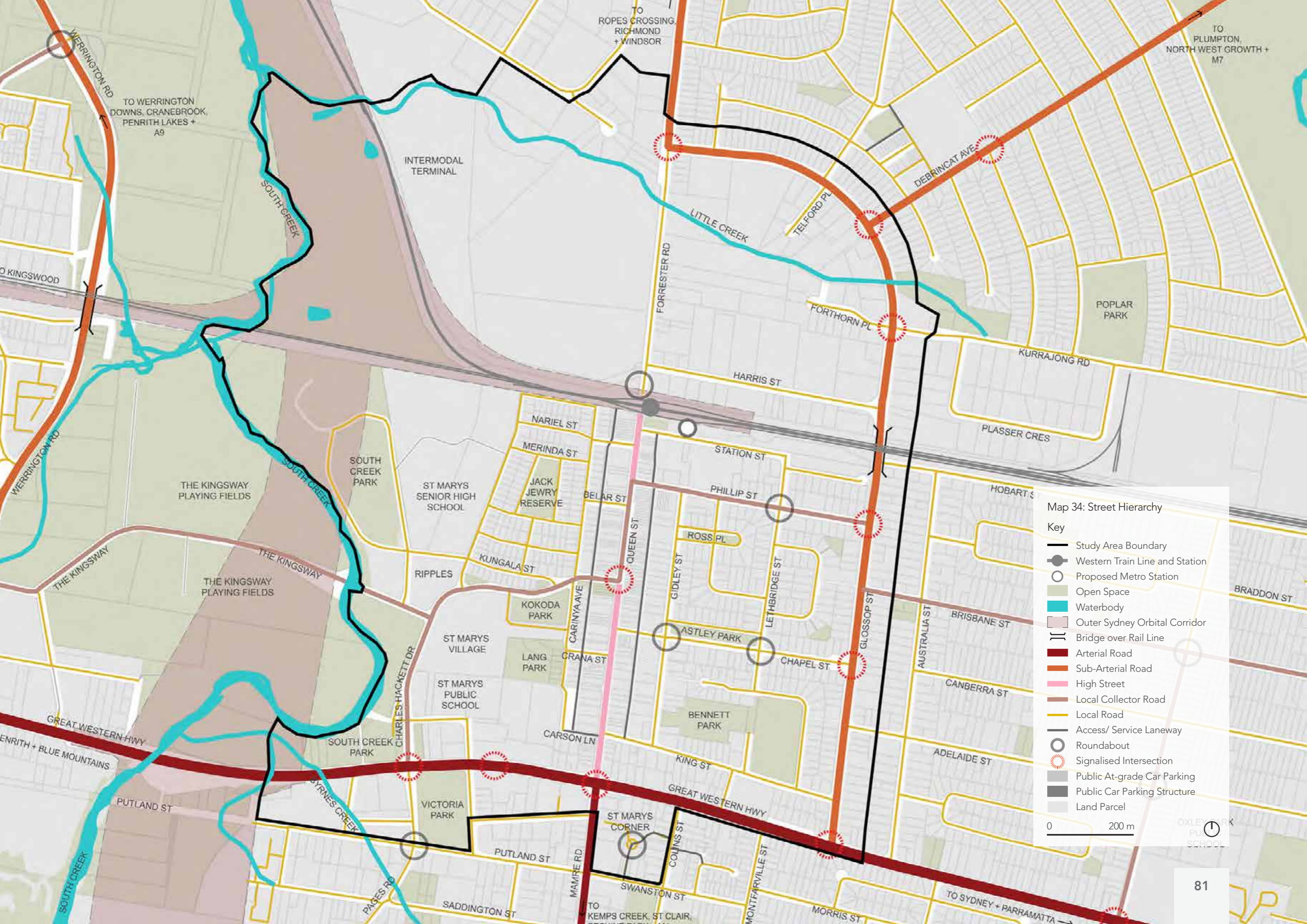
KEY STRENGTHS

- Established urban structure and effective street grid particularly around Queen Street and to the north-east of Queen Street
- Studies indicate that road capacity meets demand for the current population
- East and West lanes play an important movement function in terms of service, delivery and vehicle access that enables better street interface and activation along Queen Street
- Ease of driving and convenience have been identified as a strength by the community during stage 1 community engagement activities

KEY CHALLENGES

- Some parts of the Study Area lack permeability and legibility
- Freight movement to the north of the train station and on Glossop Street and Great Western Highway negatively impact pedestrian safety and amenity
- Queen Street is a busy thoroughfare for private vehicles and buses, but only has two bus stops.
- Queen Street tries to serve a key place function but is constrained due to through traffic
- Observed through-traffic of motorists and traffic congestion in the centre of St Marys (Queen Street and Charles Hackett Drive) undermines place amenity and economic vitality. This also detrimentally impacts amenity and safety of pedestrians and cyclists
- Potential impacts of the Outer Sydney Orbital corridor need to be investigated

*Note: Traffic modelling was undertaken in 2013 as part of the 'St Marys Village Precinct Redevelopment Traffic and Parking Study' by GHD. This work is however now outdated.



TO WERRINGTON
DOWNS, CRANBROOK,
PENRITH LAKES +
A9

TO
ROPES CROSSING
RICHMOND
+ WINDSOR

TO
PLUMPTON,
NORTH WEST GROWTH +
M7

INTERMODAL
TERMINAL

SOUTH CREEK

LITTLE CREEK

DEBRINGAT AVE

TELFORD PL

FORTHORN PL

POPLAR
PARK

KURRAJONG RD

PLASSER CRES

HARRIS ST

THE KINGSWAY
PLAYING FIELDS

SOUTH CREEK
PARK

ST MARYS
SENIOR HIGH
SCHOOL

NARIEL ST

MERINDA ST

JACK
JEWRY
RESERVE

BELAR ST

STATION ST

PHILLIP ST

HOBART ST

THE KINGSWAY
PLAYING FIELDS

SOUTH CREEK
PARK

ST MARYS
VILLAGE

KUNGALA ST

KOKODA
PARK

CARINYA AVE

ROSS PL

GIDLEY ST

LETHBRIDGE ST

BRISBANE ST

THE KINGSWAY

SOUTH CREEK
PARK

ST MARYS
PUBLIC
SCHOOL

LANG
PARK

CRANA ST

ASTLEY PARK

CHAPEL ST

AUSTRALIA ST

CANBERRA ST

ENRITH + BLUE MOUNTAINS

GREAT WESTERN HWY

SOUTH CREEK
PARK

VICTORIA PARK

CARSON LN

KING ST

BENNETT PARK

ADLAIDE ST

PUTLAND ST

BYRNES CREEK

CHARLES HACKETT DR

QUEEN ST

GREAT WESTERN HWY

CHAPEL ST

BRISBANE ST

PUTLAND ST

ST MARYS
CORNER

SWANSTON ST

COLINS ST

ADLAIDE ST

SADDINGTON ST

TO
KEMPS CREEK, ST CLAIR

MONTFARVILLE ST

MORRIS ST

TO SYDNEY + PARRAMATTA

MOVEMENT

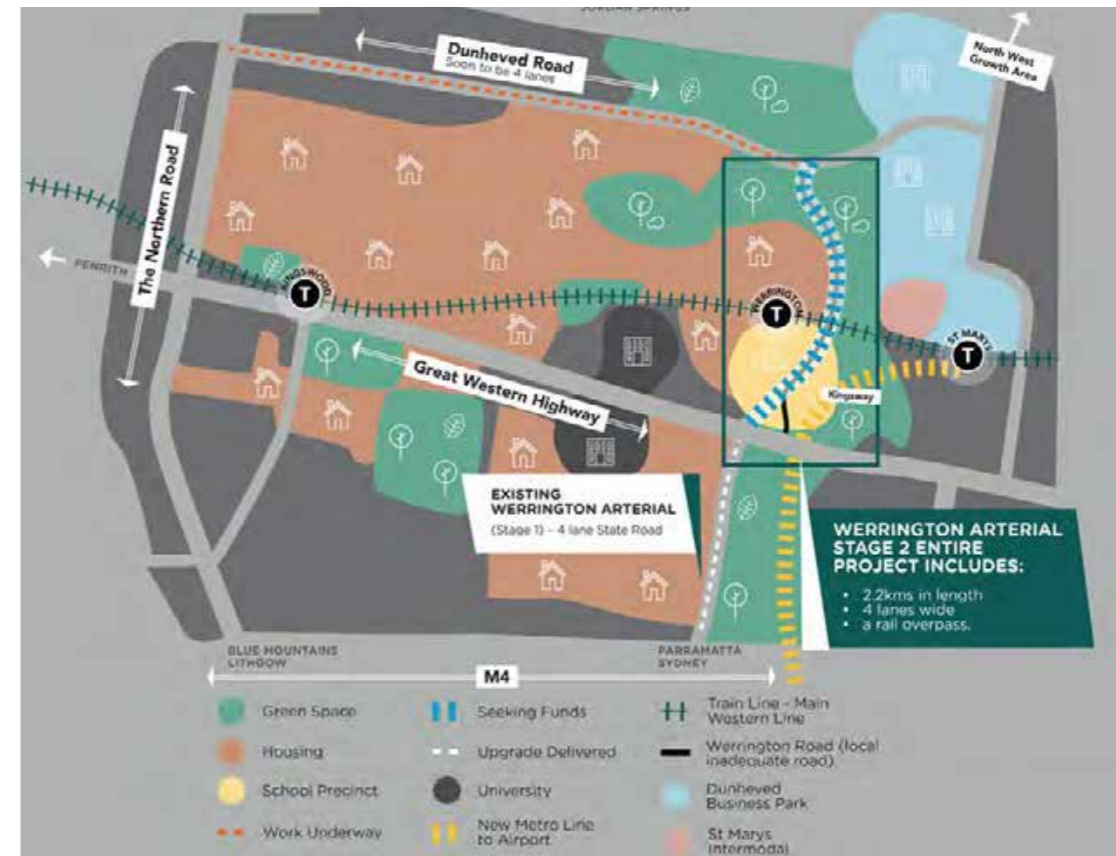
FREIGHT MOVEMENT

Along the southern edge of Queen Street is the Great Western Highway, an east-west regional connector across Greater Sydney. Glossop Street is another important road, providing a north-south link across the railway corridor. Both these roads are key freight routes.

The St Marys Intermodal Freight Hub in the Dunheved Business Park to the north of the rail line commenced operations in December 2021. The approved route for container trucks to access the hub is Forrester Road - Glossop Street - the Great Western Highway - Mamre Road. The heavy vehicle access to the freight hub is at the southern end of Forrester Road, near the St Marys train station. The St Marys Intermodal State Significant Development (SSD) Assessment Report (May 2020) revealed that the proposal would generate a daily maximum of 436 heavy vehicle movements in and out of the freight hub during operation, comprising 218 entry and 218 exit movements. This means that although the hub will reduce the number of trucks on roads overall with movement of freight by rail; there will be significant truck movement around the hub with containers delivered to surrounding warehouses and distribution centres in Western Sydney. This may significantly impact the amenity and safety of vulnerable road users to the north of the train station near the heavy vehicle access to the hub on Forrester Road and on Glossop Street.

Council has been advocating for the Werrington Arterial Stage 2 upgrade (outside the Study Area boundary), which would see the local Werrington Road upgraded to a State Arterial Road, connecting the Werrington Arterial Stage 1 with the soon to be upgraded Dunheved Road. This connection would remove the high number of traffic movements including heavy vehicles from local roads and create more efficient access to the M4 Motorway from the North West Growth Area and the St Marys industrial area. It is an alternative to the current freight movement happening within the Study Area in St Marys. The NSW Government recently announced \$3 million towards planning for the Werrington Arterial Stage 2, with the Australian Government providing an additional \$3 million. This funding is for a Strategic Business Case, which will provide the strategic design, economic assessment and early cost estimation to inform an investment decision on a Final Business Case.

In the context of freight movement, it is important to acknowledge the future north-south Outer Sydney Orbital which is proposed to have a freight rail line connecting Box Hill in the north and the Hume Motorway near Menangle in the south of Greater Sydney. This route will be additional to the existing east-west freight rail route along the Western Line. The impacts of the Outer Sydney Orbital corridor on the functionality and amenity of open spaces in St Marys will need to be investigated.



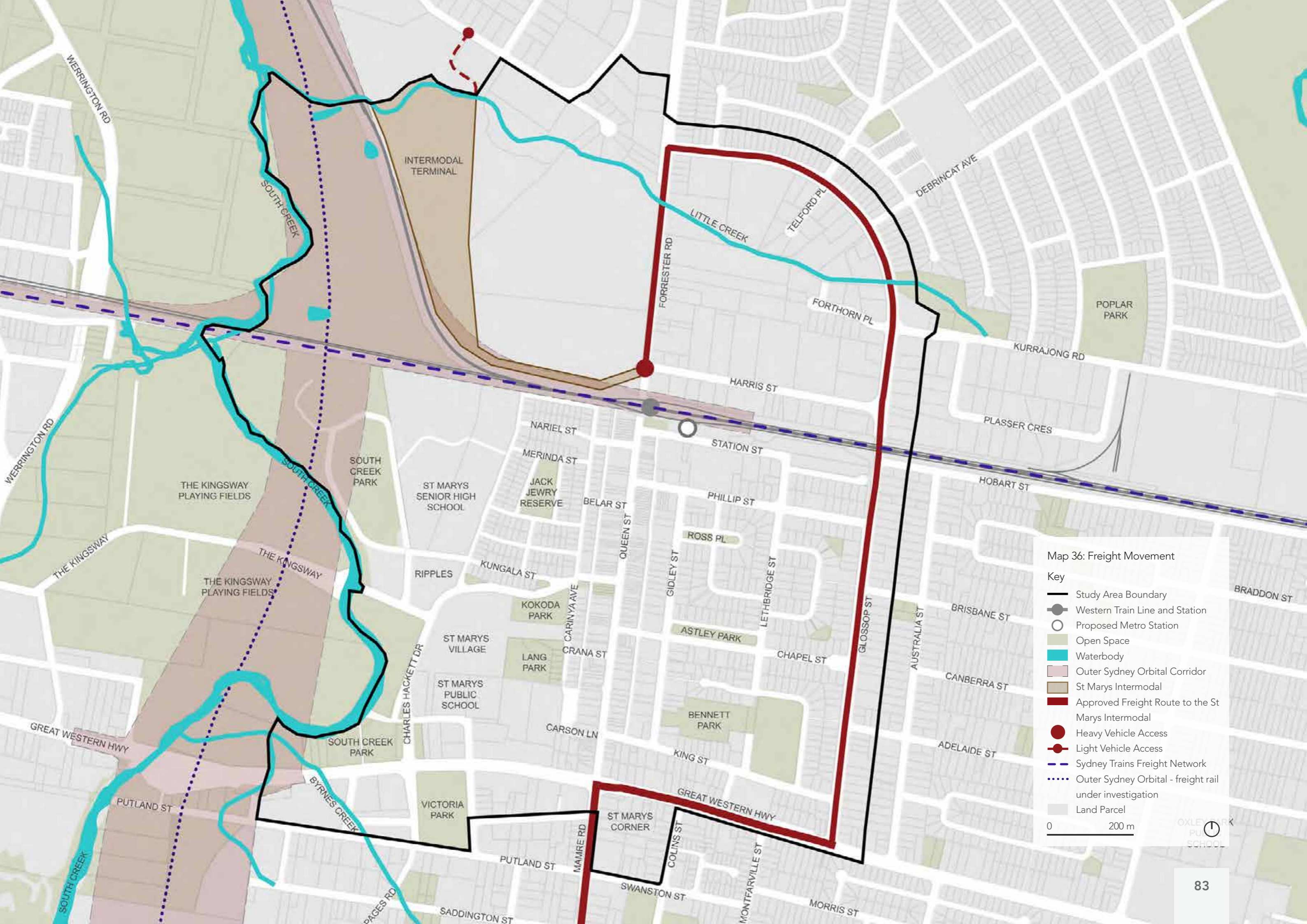
Map 35: Werrington Arterial Stage 2 (Source: Penrith City Council Advocacy Priorities, 2021)

KEY STRENGTHS

- The Study Area has key movement corridors serving freight movement
- Advocated Werrington Arterial Road Stage 2 would improve freight connectivity to the St Marys North Industrial area and reduce traffic volumes along Glossop Street. This would have a significant benefit to the community of North St Marys and Oxley Park, whose connection to the St Marys Town Centre would be improved

KEY CHALLENGES

- Freight movement to the north of the train station and on Glossop Street negatively impacts pedestrian safety and amenity
- Potential impacts of the Outer Sydney Orbital corridor need to be investigated



Map 36: Freight Movement

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Outer Sydney Orbital Corridor
- St Marys Intermodal
- Approved Freight Route to the St Marys Intermodal
- Heavy Vehicle Access
- Light Vehicle Access
- Sydney Trains Freight Network
- Outer Sydney Orbital - freight rail under investigation
- Land Parcel

0 200 m



MOVEMENT

CAR PARKING

The following sections discuss public and private car parking provisions in St Marys.

PUBLIC CAR PARKING

Public parking in St Marys Town Centre is conveniently located along Gidley Street and Carinya Avenue, with connections to Queen Street via through-site links and arcades. Council conducted a car parking survey in 2019 which revealed a total of around 1,825 off-street car parking spaces across the St Marys Town Centre. The majority of the off-street parking spaces are all-day parking, with only the Beacroft Place car park and former Veness Place car park having a 3-hour time restriction.

Since the 2019 survey was conducted, there have been changes to the public car parking provisions in St Marys. Sydney Metro acquired the Veness Place car park site for a temporary bus interchange. Sydney Metro also acquired the Harris Street surface car park site. Both these sites are now closed for public car parking. On the other hand, Sydney Metro is expanding the multi storey commuter car park along Harris Street to accommodate 250 additional parking spaces. Council has received an Australian Government grant to develop a business case and concept design for a commuter car park in Beacroft Place along Gidley Street to provide over 650 car parking spaces (in development).

Sydney Metro also conducted a car parking Survey in St Marys in December 2019. This survey indicated that many of the off-street car parks, particularly those away from the train station and to the east of Queen Street were underused (up to 89% occupancy during peak hours). Occupancy was lower in the evening peak hours compared to the morning peak. The survey also identified a low occupancy of less than 25% in the commuter car parks on Saturdays.

The 2019 Car Parking Survey by Sydney Metro identified that the suburbs where the majority of the car trips to the off-street car parks in St Marys originated from were St Clair, Ropes Crossing, St Marys, Claremont Meadows, Colyton, Oxley Park and North St Marys. All these suburbs are within a 4-5km distance from the train station. Some of these short car trips could be replaced by bike or e-bike journeys provided a dedicated and safe network of bicycle paths is established, encouraging modal shift over time.

Although the large off-street public car parks in the Town Centre provide convenience for the users of the Town Centre, they are also a barrier for pedestrian accessibility and contribute to the urban heat island effect due to the lack of shade and extensive areas covered with asphalt.



Fig. 59: Off-street car parking along Gidley Street



Fig. 60: Off-street car parking along Carinya Avenue

KEY STRENGTHS

- Public car parking located at the back of Queen Street makes shopping or visiting St Marys Town Centre a convenient experience for people arriving by car
- The community perceives the availability and convenience of parking in the Town Centre as a strength
- Majority of the car trips to the off-street car parks in St Marys Town Centre are generated within a 4-5km distance from the train station. These can potentially be replaced by bike/ e-bike journeys with good active transport facilities provided to encourage modal shift

KEY CHALLENGES

- Data captured by Sydney Metro in 2019 revealed underuse of off-street car parks, particularly away from the train station and to the east of Queen Street
- Extensive surface car parking in the area exacerbates urban heat



Commuter car park
(inc. expansion)
477 + 250 car parks

Former Harris Street
surface car park
141 car parks

Nariel Place
59 car parks

Belar Place
94 car parks

Former Veness Place
139 car parks

Kungala Place
146 car parks

Beacraft Place
346 car parks

Kokoda Place
129 car parks

Finlay Place
140 car parks

Bowlers Place
88 car parks

Carson Place
65 car parks

Map 37: Car Parking Infrastructure

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - At-grade Public Car Parking
 - Previous At-grade Public Car Park
 - At-grade Private Car Parking
 - Public Multi storey Car Parking
 - Land Parcel

0 200 m



MOVEMENT



Fig. 61: Public Car Parking Occupancy Volumes, morning peak hours (Source: Sydney Metro Car Parking Survey 2019)



Fig. 62: Public Car Parking Occupancy Volumes, evening peak hours (Source: Sydney Metro Car Parking Survey 2019)

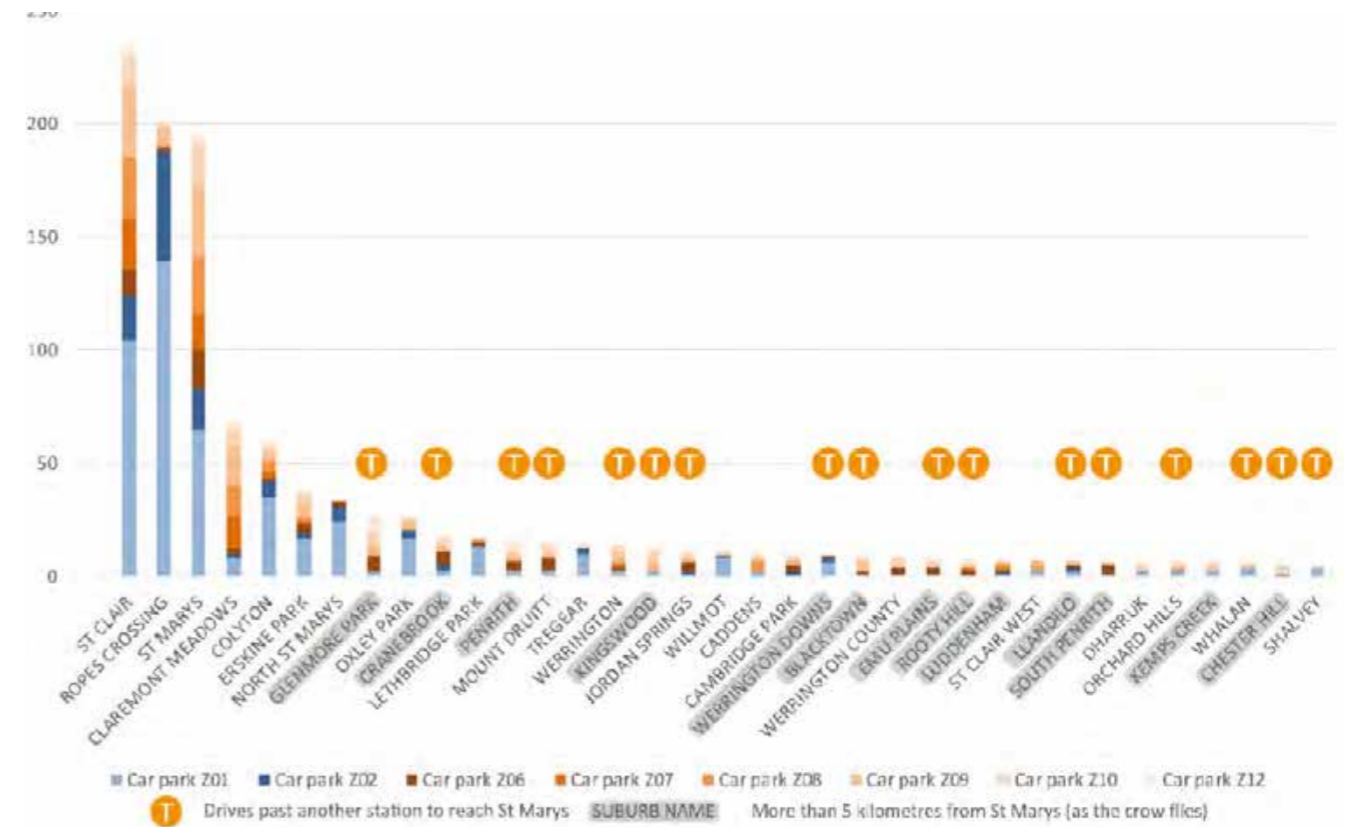


Fig. 63: Suburbs where car trips to St Marys' car parks originate (Source: Sydney Metro Car Parking Survey 2019)

MOVEMENT

PRIVATE CAR PARKING

The Penrith Development Control Plan (2014) prescribes parking rates for the LGA. This plan specifies a minimum of 2 parking spaces per dwelling for dwelling houses and dual occupancies (with 2 or more bedrooms). It proposes 1 car space per 1 bedroom for multi-dwelling housing and 1 car space per 1 or 2 bedrooms for residential flat buildings with additional visitor parking for developments that have 5 or more dwellings. Such high car parking rates have a potential to encourage higher car dependency, which is evident from the 72.1% and 72.6% trips to work in 2016 being by car in St Marys and North St Marys, and only 16% and 13.1% being by public transport respectively (ABS Census 2016).

There is now an opportunity to harness the significant investment in a new metro station in St Marys, and the improved public transport outcomes that it will deliver, to reconsider private car parking provision in the Town Centre. Private car parking rates in Epping Town Centre and Campsie Town Centre (both strategic centres) are provided beside as examples of different approaches for comparison. It is noted that these two centres adopted a maximum rate rather than minimum rate for medium to high density developments.

Dwelling size	St Marys Town Centre	Campsie Town Centre		Epping Town Centre	
	Minimum rate	Minimum rate	Maximum rate	Minimum rate	Maximum rate
1-bedroom unit in multi-dwelling housing	1 space/dwelling	-	0.5 spaces/dwelling	-	0.4 spaces/dwelling
1-2-bedroom unit in residential flat building	1 space/dwelling	-	0.5-1 spaces/dwelling	-	0.4-0.7 spaces/dwelling
2-bedroom unit in multi-dwelling housing	1.5 spaces/dwelling	-	1 space/dwelling	-	0.7 spaces/dwelling
3+-bedroom unit in multi-dwelling housing/residential flat building	2 spaces/dwelling	-	1.5 spaces/dwelling	-	1.2 spaces/dwelling
Dwelling house	2 spaces/dwelling	1 space/dwelling	-	1-2 spaces/dwelling (subject to size)	-
Visitor parking in Multi-dwelling/residential flat building	1 space/5 dwellings	0 spaces/dwelling	1 space/10 dwellings	1 space/7 dwellings	-

Table 7: Private residential car parking provision rates (Source: Penrith DCP 2014, Revised Draft Campsie Master Plan 2022, Parramatta DCP 2011 and Epping Town Centre Car Parking Controls, 2018)

KEY STRENGTHS

- Private parking provisions offer convenience to the local community
- The new Metro station provides the opportunity to rethink private car parking requirements in new developments

KEY CHALLENGES

- High private car parking in developments may incentivise greater car use and dependency

MOVEMENT

WALKING & CYCLING INFRASTRUCTURE

The next few pages assess local walking infrastructure, and local and regional bicycle and micromobility infrastructure.

Council's Green Grid Strategy (2021) recommends priority green grid projects for the Study Area such as along Glossop Street, The Kingsway, Chapel Street, Charles Hackett Drive and King Street. The Structure Plan will look at these and consider them in terms of the overall movement and place framework for the Town Centre.

The experience of walking in the Town Centre is variable. There are several local destinations within a 5, 10 and 15 minute walk from the train station (refer to Map 39); however the experience of walking to the Town Centre from surrounding neighbourhoods (South St Marys, Oxley Park and North St Marys) could be improved, ensuring permeability across physical barriers such as the railway corridor, Glossop Street, Great Western Highway and South Creek.

It should be noted that the analysis of pedestrian infrastructure quality, safety and comfort in the Study Area is based on qualitative research, which included site inspections in St Marys Town Centre at multiple times of the day and week.

QUEEN STREET

Queen Street has spacious footpaths with widths between 3m and 7m and these are shaded by fairly continuous awnings. Upgrades along the street, including the understorey planting, trees, seating and public art, have enhanced its pedestrian experience. Queen Street has several through-site links and private arcades which allow east-west pedestrian access to the car parks and beyond; however there is limited permeability at night as the private arcades are closed after trading hours. The quality of the existing through-site links could improve. Some of them are narrow, do not have active edges and lack regular maintenance. Despite the presence of arcades, a couple of blocks along Queen Street (particularly to the east) are long.

The intersections between Phillip Street and Queen Street, and Charles Hackett Drive and Queen Street have high traffic volumes (based on observation at site inspections) and are not conducive to a safe and pleasant environment for pedestrians and bicycles.

EAST-WEST CONNECTIONS

Other than Queen Street, there has not been sufficient investment to improve walkability and bikeability in the Centre. Although some streets in the residential areas have low traffic volumes and are safe for pedestrians to walk, the footpaths are generally narrow or non-existent. This limits access to people with disability and also limits the ability for two people to walk alongside each other. Areas around parks such as Jack Jewry Reserve and Ross Place as well as along West Lane and East Lane lack footpaths. Access for people with disabilities between the car parks and Queen Street is limited.

The area to the north-west of Queen Street has short blocks and a legible street grid. However, pedestrian connectivity between Queen Street and South Creek is poor due to the presence of large land parcels, lack of through-site links and roads with busy vehicular movement and infrequent dedicated pedestrian crossings. Challenges have been identified with the safety of accessing the primary school on foot as it is located behind the shopping centre, with conflicts with heavy vehicles, busy driveways and traffic congestion. Pedestrian connectivity to the St Marys Village shopping centre, Ripples Leisure Centre and the South Creek Park could be improved, which would benefit the residential communities that use these facilities.

The street network to the east of Queen Street is illegible and not conducive to easy wayfinding. This area has some through-site links, however these are not legible and are of varying quality. There is an opportunity to formalise the pedestrian links, and make them safe and comfortable to improve St Marys' walkability.

CONNECTIONS TO THE NORTH

The east-west railway corridor creates a significant physical barrier between the north and south of the St Marys Town Centre, dividing the centre in two parts. The existing footbridge does not provide easy, convenient and pleasant environment for pedestrians, cyclists, people using wheelchairs and mobility devices.

The large industrial block to the north of the train station lacks formal through-site links. This, coupled with heavy vehicular movement along Glossop Street and the railway corridor, are significant barriers for directly accessing the train station and Queen Street for the residents of North St Marys. This area also happens to have the least tree canopy cover, making the walking experience more challenging during summers. Walking and cycling connections to the north of the train station will need to be carefully planned, taking into account the impacts of heavy vehicular movement along Forrester Road and Glossop Street due to the Intermodal Freight Hub operations.

MOVEMENT

CONNECTIONS TO THE SOUTH

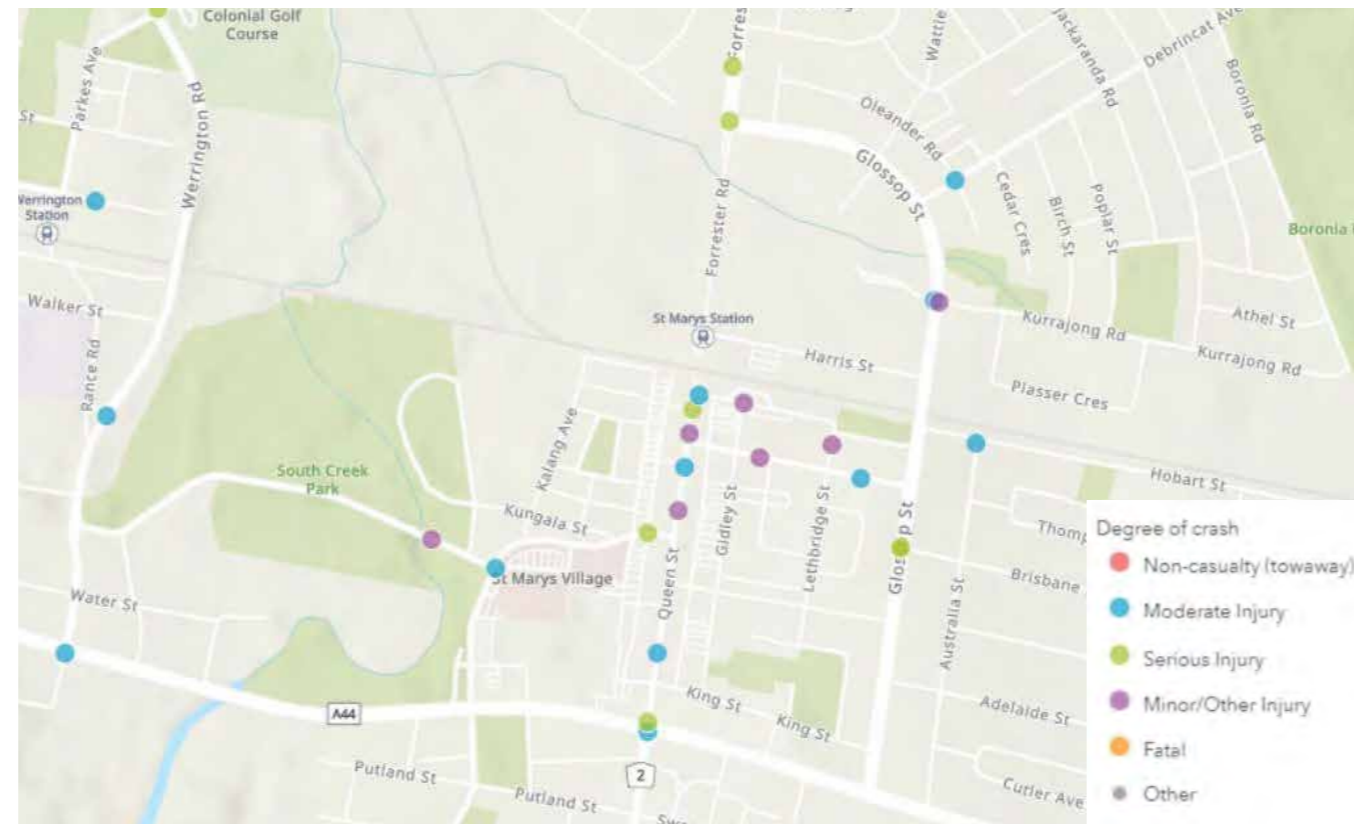
To the south, the existing St Marys Corner site is disconnected from Queen Street by the Great Western Highway. The area to the south of the highway and west of Mamre Road currently has the highest residential density in the suburb of St Marys. This is quite disconnected from the destinations within the Town Centre north of the highway. Large intersections along the highway with long pedestrian wait times coupled with the presence of heavy vehicles make the experience of moving across the highway on foot challenging. Better pedestrian and bicycle connection across the Great Western Highway is required to promote active transport use and a healthy lifestyle.

ACCESSING THE FUTURE TRANSPORT INTERCHANGE

Data from the Sydney Metro Western Sydney Airport Environmental Impact Statement - Technical Paper 1 (Transport) mentions preliminary forecasts for the 2036 AM peak hour (busiest hour) to be 2,200 customers entering and about 950 customers exiting the St Marys metro station, reflecting a residential catchment. The forecasts indicate more than half of the morning peak arrivals to access the station using walking, cycling or public transport, with 41% walking to the station. This strengthens the need to enhance walkability of the Town Centre and the transport interchange surroundings.

CRASH AND CASUALTY DATA

Crash and Casualty Statistics from TfNSW (2016 to 2020) reveals the majority of crashes involving pedestrians and cyclists to be either in the northern part of Queen Street, around Phillip Street, or along busy movement corridors such as Forrester Road, Glossop Street and the Great Western Highway. It will be important to reconsider the role and function of streets and for street design to cater to minimising crashes and ensure the safety of vulnerable road users.



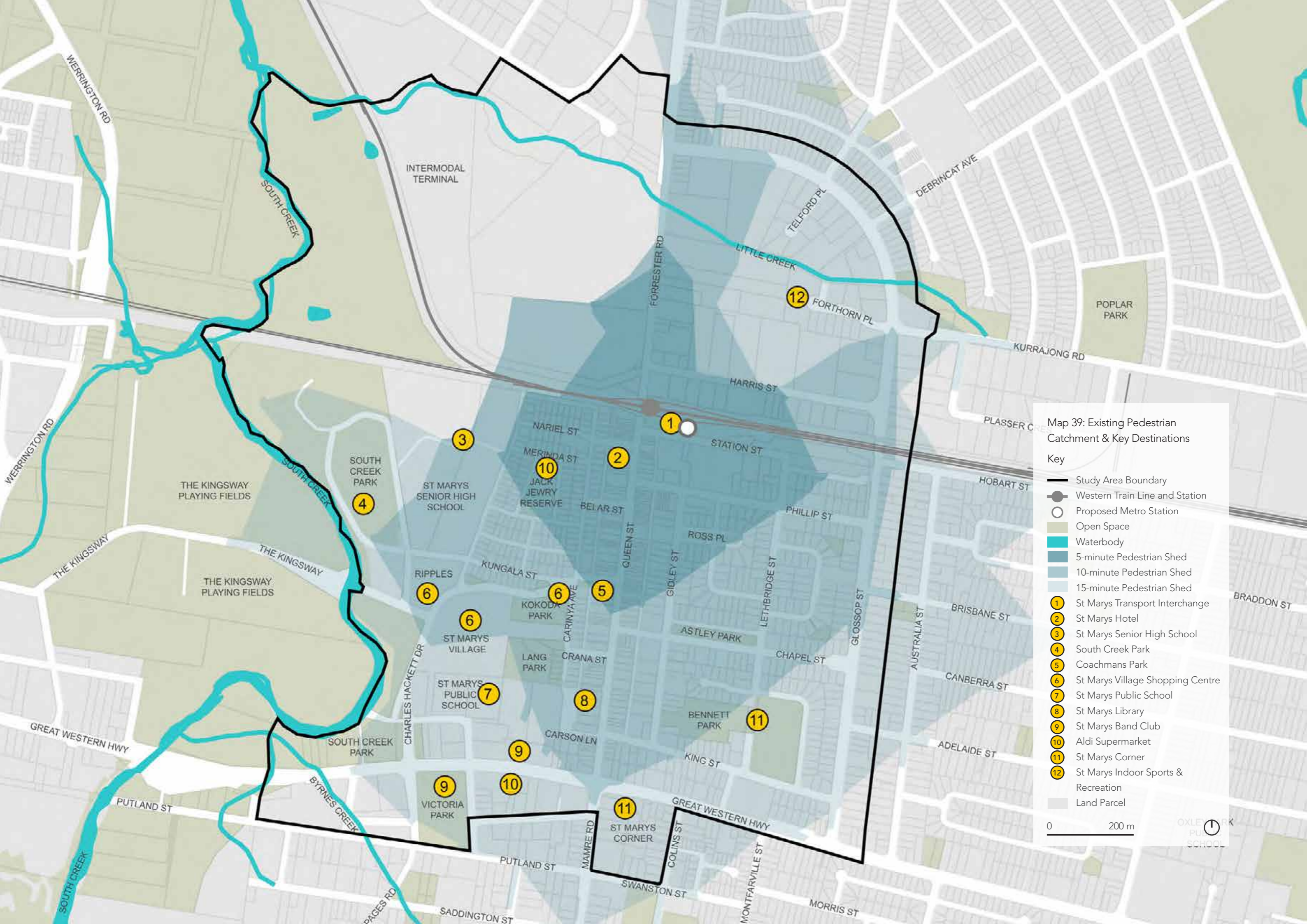
Map 38: Locations of crashes and casualties between 2016 and 2020 in and around the Study Area, involving pedestrians and cyclists (Source: TfNSW, Centre for Road Safety, 2022)

KEY STRENGTHS

- Queen Street is walkable due to its wide footpaths, fairly continuous awnings and presence of planting, seating and public art






















KEY CHALLENGES

- Other than Queen Street, the Study Area lacks a pedestrian-friendly environment, due to large blocks, limited dedicated pedestrian crossings, high volume of vehicular and freight movement, physical barriers in the form of major roads and the railway, narrow footpaths, illegible/inconsistent through-site links and low levels of shade
- Cross-rail pedestrian and cycle connectivity is inadequate.
- St Marys Corner, the South Creek Park as well as the residential area in North St Marys are disconnected from Queen Street and the train station
- Majority of the crashes involving pedestrians and cyclists are either on the collector roads, meaning the northern part of Queen Street, Phillip Street and Charles Hackett Drive, or along busy movement corridors such as Forrester Road and Glossop Street
- Better east-west connection for pedestrians needs to be considered



Map 39: Existing Pedestrian Catchment & Key Destinations

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  5-minute Pedestrian Shed
-  10-minute Pedestrian Shed
-  15-minute Pedestrian Shed
-  1 St Marys Transport Interchange
-  2 St Marys Hotel
-  3 St Marys Senior High School
-  4 South Creek Park
-  5 Coachmans Park
-  6 St Marys Village Shopping Centre
-  7 St Marys Public School
-  8 St Marys Library
-  9 St Marys Band Club
-  10 Aldi Supermarket
-  11 St Marys Corner
-  12 St Marys Indoor Sports & Recreation
-  Land Parcel

0 200 m



MOVEMENT

CYCLING & MICROMOBILITY INFRASTRUCTURE

Cycling and micromobility includes human or electric-powered personal mobility devices such as conventional bicycles, tricycles, electric assist bicycles (e-bikes), kick scooters, cargo bikes (which can carry loads or passengers) as well as share bikes. In the future it may also include e-scooters, delivery robots and other innovative personal mobility devices (TfNSW Cycleway Design Toolbox, 2020)*. Below is a description of bicycle and micromobility infrastructure at a regional and local level.

REGIONAL INFRASTRUCTURE

As a strategic centre, St Marys has some key regional destinations within the Penrith LGA. However, its current transport infrastructure is highly oriented towards supporting private vehicle use for accessing these places. Only 0.3% of people in the suburb of St Marys rode a bike to work in 2016 compared to 0.7% across Greater Sydney (ABS Census, 2016).

Map 41 shows the geographic area that can be accessed within 15 minutes from St Marys train station by regular bike (assumed speed 16 km/h) and e-bike (assumed speed 25 km/h). The map also shows the shared bike and walking paths in the area based on data from TfNSW (2022). There are hardly any dedicated bicycle trails (bicycle-only routes) in this area, and the existing shared path network is fragmented.

There is an off-street bike and pedestrian path along the Great Western Highway that supports east-west regional bike connectivity between St Marys and Penrith, however, it may not feel safe to ride on for some users as it runs along a busy vehicular and freight movement corridor with no protected edge. It also lacks shade and may feel uncomfortable to use on hot summer days. There are only a few other off-road shared paths in the suburbs of Claremont Meadows, Ropes Crossing, Werrington County and along the Ropes Creek, however these do not join up to form an integrated network.

The Iso4App API online tool used to map the bike and e-bike catchments took into account the existing street network including private roads and bike paths, but not arcades, informal paths or the quality of infrastructure. The catchment map shows that an area including North St Marys, Oxley Park and a part of Claremont Meadows is accessible from St Marys train station currently by regular bike in 15 minutes; and this could increase to also include Werrington County, Colyton, Mount Druitt and a part of Ropes Crossing and St Clair for cyclists riding an e-bike. However, the current infrastructure and accessibility is not safe, convenient or pleasant for cyclists. There is also a potential to expand this catchment further by installing new bike paths and completing the fragmented regional bicycle network. New dedicated trails can be added along ecological corridors such as the South Creek.

In order to increase public transport ridership for people living beyond a 10-minute walking distance from the station, it will be important to facilitate seamless bicycle connectivity within and around the Study Area to encourage bike-and-ride. Improving the comfort of riding a bike by adding tree cover and shade as recommended by Council's Green Grid Strategy 2021, and end-of-trip amenities can also encourage higher cycling uptake.

LOCAL INFRASTRUCTURE

As per Map 40, there is little infrastructure for cycling, mobility scooters and other forms of micromobility within the Study Area. This mostly exists in the form of on-road shared paths with painted bicycle symbols along Queen Street and some surrounding streets, often requiring cyclists to share the road space with buses and vehicles. Lack of dedicated infrastructure has resulted in the use of footpaths for cycling as observed on several occasions.

North-south active transport connectivity across the train line in St Marys is either via Glossop Street, which has no dedicated infrastructure for bicycles, or the train concourse, which requires cyclists to dismount at both ends in order to carry the bike in the lift. For mobility scooter and wheelchair users, access to the train concourse is impossible when the lift is non-operational. It is critical to improve cross rail connectivity at the station where cyclists will not need to dismount and mobility scooter/wheelchair users can safely cross at all times.

KEY STRENGTHS

- Some shared paths exist within a 15-minute e-bike catchment of St Marys

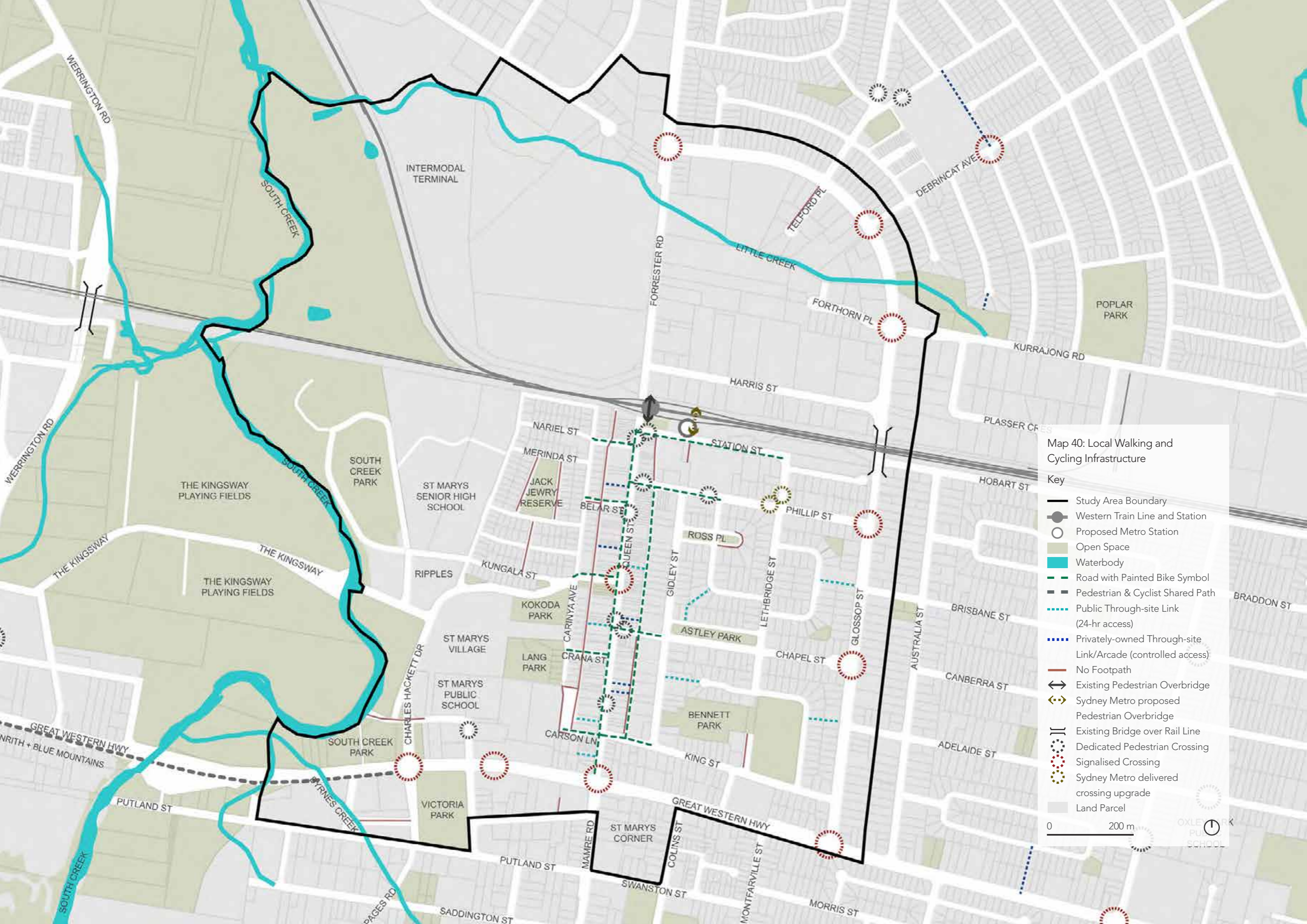
KEY CHALLENGES

- Lack of safe and convenient regional bicycle infrastructure does not encourage cycling for short journeys up to 15 minutes
- Lack of an interconnected bike network in the Town Centre. Existing infrastructure is located further away
- Lack of separated local infrastructure for bicycles and micromobility devices in the Town Centre
- Lack of seamless north-south cross rail connectivity for bikes and mobility scooters
- Poor connectivity across the Great Western Highway and Glossop Street discourages bike use for people living beyond the Study Area



Fig. 64: Cyclists observed to ride on the footpaths

*It should be noted that e-scooters are currently considered illegal in NSW, but TfNSW is investigating to 'deliver complete micromobility networks, pedestrian space and interchanges that safely support a wider range of devices'.



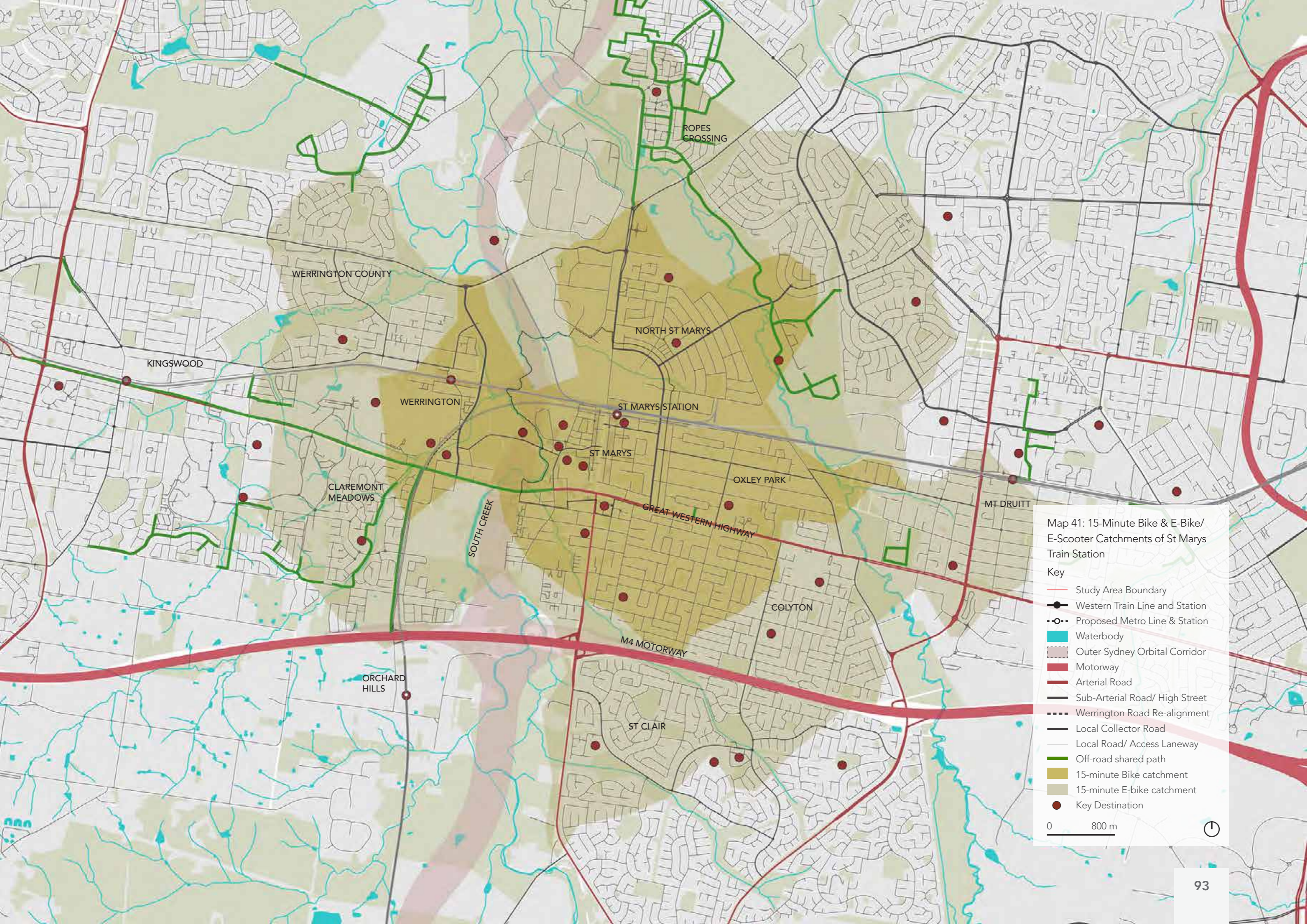
Map 40: Local Walking and Cycling Infrastructure

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Road with Painted Bike Symbol
- Pedestrian & Cyclist Shared Path
- Public Through-site Link (24-hr access)
- Privately-owned Through-site Link/Arcade (controlled access)
- No Footpath
- Existing Pedestrian Overbridge
- Sydney Metro proposed Pedestrian Overbridge
- Existing Bridge over Rail Line
- Dedicated Pedestrian Crossing
- Signalised Crossing
- Sydney Metro delivered crossing upgrade
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL



Map 41: 15-Minute Bike & E-Bike/
E-Scooter Catchments of St Marys
Train Station

- Key
- Study Area Boundary
 - Western Train Line and Station
 - - - Proposed Metro Line & Station
 - Waterbody
 - Outer Sydney Orbital Corridor
 - Motorway
 - Arterial Road
 - Sub-Arterial Road/ High Street
 - - - Werrington Road Re-alignment
 - Local Collector Road
 - Local Road/ Access Laneway
 - Off-road shared path
 - 15-minute Bike catchment
 - 15-minute E-bike catchment
 - Key Destination

0 800 m



HOUSING

The Study Area had 1,672 dwellings in 2016 (.ID Social Atlas). Data from 2016 revealed over 60% of the local population to be renting privately or living in social housing. With a significant amount of social housing owned and operated publicly and by community housing providers, St Marys Town Centre plays an important role in meeting the housing needs of disadvantaged community members.

Council's LHS (2022) envisions Penrith City to provide a diverse range of housing to cater for a changing and growing population with differing needs and lifecycle choices. It directs housing to be affordable, environmentally sustainable and responsive to the local character.

It will be important to protect the existing social housing and affordable rental housing as well as improve housing diversity for the community of St Marys.

HOUSING TYPES AND CONDITION

The Study Area had 1,672 dwellings across various typologies in 2016 (Source: .ID Social Atlas - aggregated SA1 areas). Low density detached houses are the most common dwelling typology, however the Study Area also has medium density housing including multi-family houses and townhouses and high density housing including walk-up apartments and low-medium rise apartments. Only a few housing developments have been built in the past 5 years, with a majority being to the east of Queen Street and along Glossop Street. Housing stock across the centre is older.

SOCIAL AND AFFORDABLE HOUSING

Over 3,500 people lived within the Study Area in 2016, with over 60% renting privately or living in social housing (2016 ABS Census). As shown on Map 42, the NSW LAHC is a key stakeholder in the area, owning and managing several properties around Glossop Street (496 LAHC dwellings located within the Study Area and to the south of Great Western Highway). These include detached houses, townhouses and apartment units. Some lots owned by the LAHC are vacant while some are being developed (23-25 Lethbridge Street).

The area also has private social housing providers, including Wentworth Community Housing and Hume Community Housing. The Wentworth Housing site at 42 Chapel Street includes micro apartments (boarding house) whereas 11-15 Phillip Street has apartment units. It is vital to preserve social

housing in St Marys to protect its vulnerable community members. A Voluntary Planning Agreement for the former Station Plaza site which was a part of its approved planning proposal included the provision of 18 affordable units out of 600 units (3%).

HOUSING AND RENTAL STRESS

Council's LHS (2022) reveals the issue of housing stress in St Marys, with 25.65% of households experiencing housing stress, and 37.46% households in rental stress (ABS Census, 2016). It will be important to provide affordable rental housing in the area to minimise the levels of rental stress and avoid the possibility of displacement of the community associated with urban renewal.

HOUSING A FUTURE COMMUNITY

The Western City District Plan envisages St Marys as a centre for diverse housing with densities planned around transport hubs.

In December 2020, Council commissioned HillPDA to undertake a preliminary analysis of the potential for housing development in St Marys under the current planning controls. The study estimated that the likely dwelling potential of St Marys REMPLAN precinct (area including the suburbs of St Marys, North St Marys, Oxley Park and Colyton) would be in the order of around 11,000 dwellings under current controls.

Council's Local Housing Strategy, 2022 (LHS) indicates a similar figure (noting that around 782 dwellings have already been completed between 2016 and 2021).

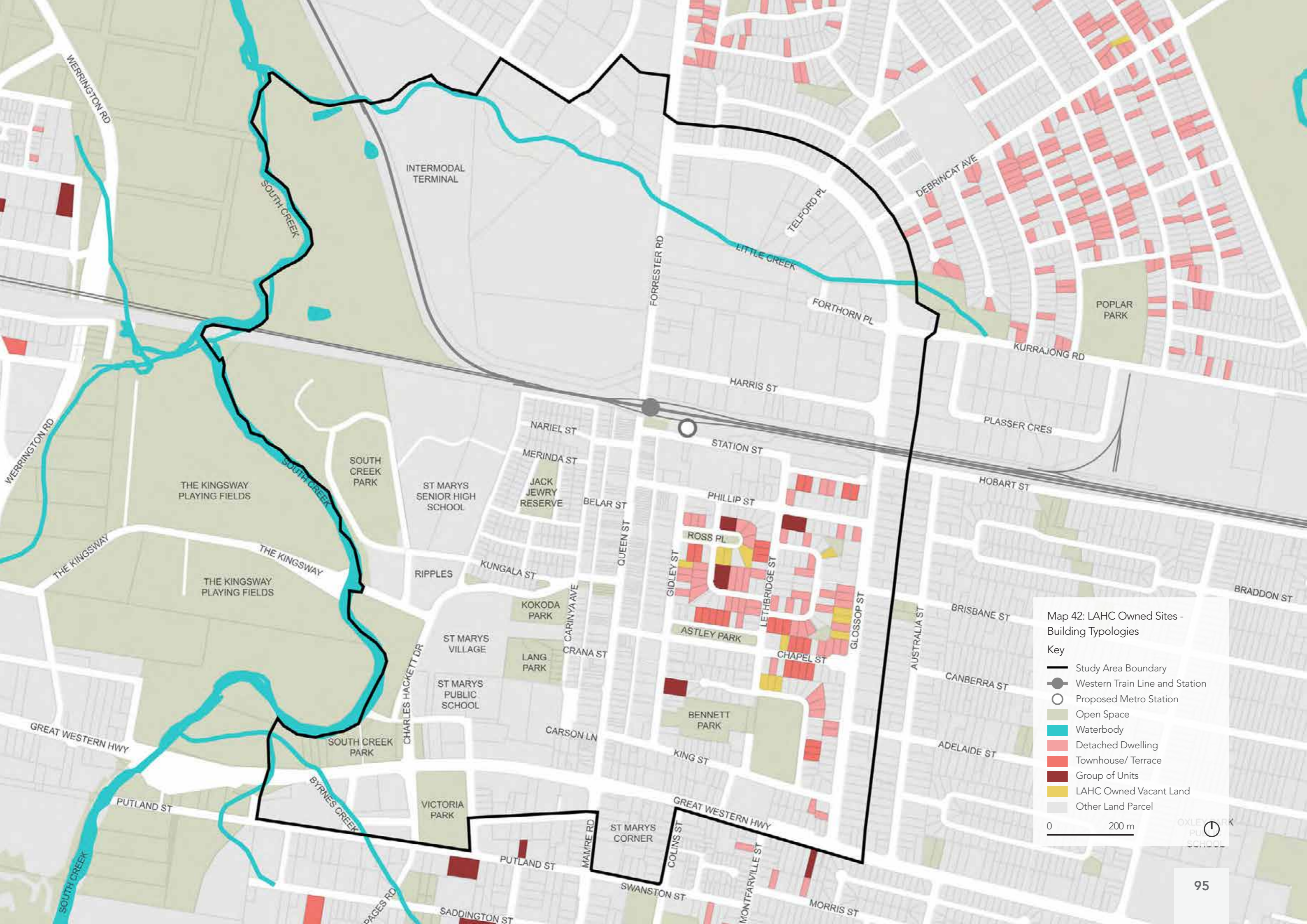
It is key to ensure that any new housing in St Marys Town Centre delivers diversity, caters to affordability and promotes the goals of sustainability.

KEY STRENGTHS

- Significant social housing catering to lower-paid essential workers and vulnerable community members
- Affordable rents and house prices
- Studies indicate existing planning controls having theoretical capacity to meet anticipated housing demand
- Current controls promote housing diversity

KEY CHALLENGES

- Majority of the housing stock is older
- Potential displacement of key workers/ vulnerable community members if housing affordability is not addressed
- Over one-third households experience rental stress. This could increase due to gentrification process



Map 42: LAHC Owned Sites - Building Typologies

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - Detached Dwelling
 - Townhouse/ Terrace
 - Group of Units
 - LAHC Owned Vacant Land
 - Other Land Parcel

0 200 m



BUILT FORM

St Marys is characterised by low scale (1 to 3 storeys) retail, industrial and residential buildings. Queen Street is the main retail spine flanked by 1-2 storey buildings with fine grain shopfronts. A few larger footprint shopping centres are located away from the main street. There are about 250 ground floor businesses in the Town Centre directly facing the main street.

The area to the north of the train line is characterised by larger footprint industrial and warehouse buildings. Residential development across the centre comprises of predominantly 1 to 2 storey detached houses and town houses, although there are a few residential flat buildings of 3 to 5 storeys in height. There are only 2 buildings of 7 and 8 storeys in the Study Area.

EXISTING BUILDING TYPOLOGIES

The following sections discuss the existing non-residential and residential building typologies in the Study Area.

NON-RESIDENTIAL BUILDING TYPES

The Study Area is characterised by low to medium density built form. Queen Street is a north-south oriented 890m linear shopping strip with predominantly 1 to 2 storey shop top buildings. These are generally attached, retail/commercial buildings with generous front setbacks allowing wide footpaths. The fine grain shopfronts and low-scale built form along Queen Street lend it its unique character that is valued by the community.

Along Queen Street are a few 3 storey mixed use buildings and one 7 storey shop top building with retail/commercial uses on the ground floor and residential uses on the upper levels. The narrow width of lots along Queen Street protect its character, however coupled with fragmented land ownership may limit development potential, if the lots are not amalgamated.

Within the Study Area are a few larger footprint standalone warehouse buildings and two large-scale commercial/retail shopping centres. The shopping centres typically contain anchor tenants along with smaller shops and have their own car parking areas.

To the north of the train line is the Dunheved Business Park, an industrial precinct with older warehouses, factories and small industrial units in industrial park complexes. This precinct has a dense, compact character with low scale-built form ranging from 1 to 2 storeys. The Study Area also has large footprint commercial/warehouse typology buildings and small shopping complexes along the Great Western Highway.

The area is supported by 1 to 2 storey institutional buildings, including two public schools, private education and training facilities, St Marys Library, St Marys Corner, Ripples and some religious use buildings.

RESIDENTIAL BUILDING TYPES

Low to medium density residential buildings are located to the east and west of Queen Street. Single storey detached dwellings are the most common building type, offering good internal amenity, wide setbacks and private open spaces. The 'Duration Cottages' to the north west of Queen Street are all mostly single storey dwellings.

There are a few lots with multi-family dwellings, particularly to the east of Queen Street. These include townhouses and semi-detached dwellings. Along Glossop Street are a few newly built and under construction townhouse developments. These medium density developments maintain the low-scale character of the area, yet deliver housing diversity. The area to the east of Queen Street also has a few 3 to 4 storey

walk-up apartment buildings. A higher concentration of residential apartments is located outside the Study Area to the south of the Great Western highway

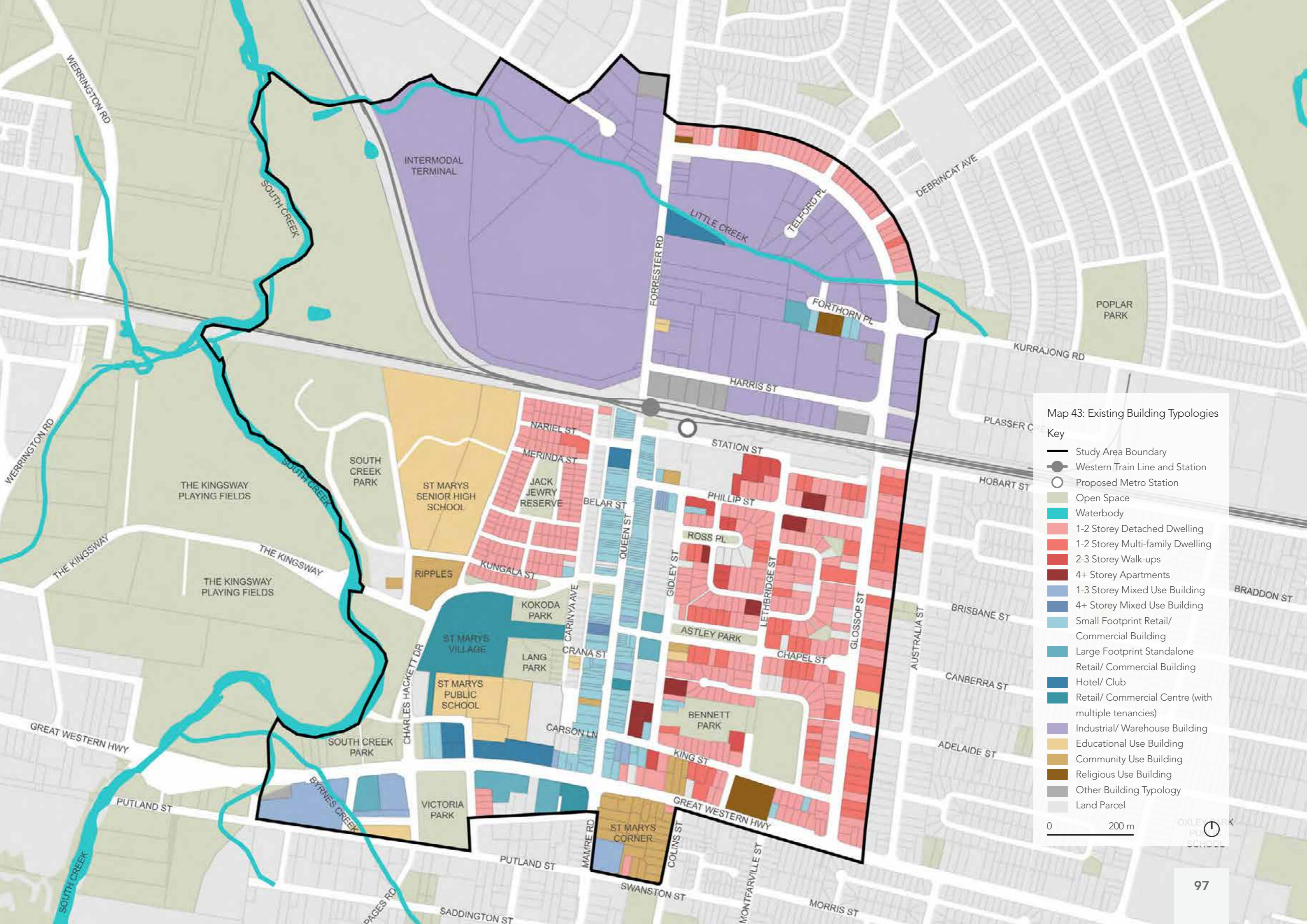
Generally, the building stock is older, except for a few newly built townhouses and some medium density apartments. There are opportunities for careful intensification of some areas to boost vitality while protecting significant character and human scale.

KEY STRENGTHS

- Predominantly 1 to 3 storey fine grain built form along Queen Street contributes to its unique character
- Diversity of housing types to the east of Queen Street, including town houses and flat buildings in proximity of the train station
- Existing building typology promotes housing diversity in terms of housing type, size and affordability

KEY CHALLENGES

- Lower density residential in proximity to the train station does not promote transit oriented development
- Generally older building stock
- Narrow lots and fragmented ownership along Queen Street may limit development opportunities, but helps to maintain the historic character of the main street



Map 43: Existing Building Typologies

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  1-2 Storey Detached Dwelling
-  1-2 Storey Multi-family Dwelling
-  2-3 Storey Walk-ups
-  4+ Storey Apartments
-  1-3 Storey Mixed Use Building
-  4+ Storey Mixed Use Building
-  Small Footprint Retail/ Commercial Building
-  Large Footprint Standalone Retail/ Commercial Building
-  Hotel/ Club
-  Retail/ Commercial Centre (with multiple tenancies)
-  Industrial/ Warehouse Building
-  Educational Use Building
-  Community Use Building
-  Religious Use Building
-  Other Building Typology
-  Land Parcel

0 200 m

BUILT FORM



Fig. 65: Single storey detached dwelling - the most common typology of housing in the Study Area



Fig. 68: Small footprint 'Duration Cottage' on a narrow lot to the west of Queen Street



Fig. 71: Contemporary detached dwelling



Fig. 74: Detached house with a secondary dwelling at the rear



Fig. 66: Low rise multi-family dwellings are common along Glossop Street



Fig. 69: Townhouse development in the eastern part of the Study Area



Fig. 72: Walk-up apartment typology in the eastern part of the Study Area



Fig. 75: The Study Area has very few mixed use developments and shop top dwellings



Fig. 67: Queen Street is flanked by low-scale built form with fine grain shopfronts



Fig. 70: Internalised shopping centres could improve with activating surrounding open spaces and streets



Fig. 73: The industrial precinct in North St Marys has old warehouse and industrial buildings



Fig. 76: Heritage hotel along the Great Western Highway

BUILT FORM

EXISTING BUILDING HEIGHTS

As seen on Map 44, the existing buildings in St Marys Town Centre are predominantly low-scale, 1 to 2 storeys in height. There are examples of the transition that is starting to occur in St Marys, enabled by the current planning controls.

To the west of Queen Street, buildings are predominantly single storey dwellings, including the Duration Cottages. To the east of Queen Street, building heights vary, although heights are predominantly 1 to 2 storeys with a few 3 to 5 storey buildings scattered through the area.

The built form along Queen Street is predominantly single storey, with higher floor to ceiling heights and taller parapet walls along the shopfronts. The new shop top building along Queen Street at the end of Chapel Street is 7 storeys high.

The built form does not generally visually dominate the landscape; however there are opportunities to look at built form controls as part of the St Marys Town Centre Master Plan to ensure that building heights and built form allowed in the Study Area preserve scenic views.

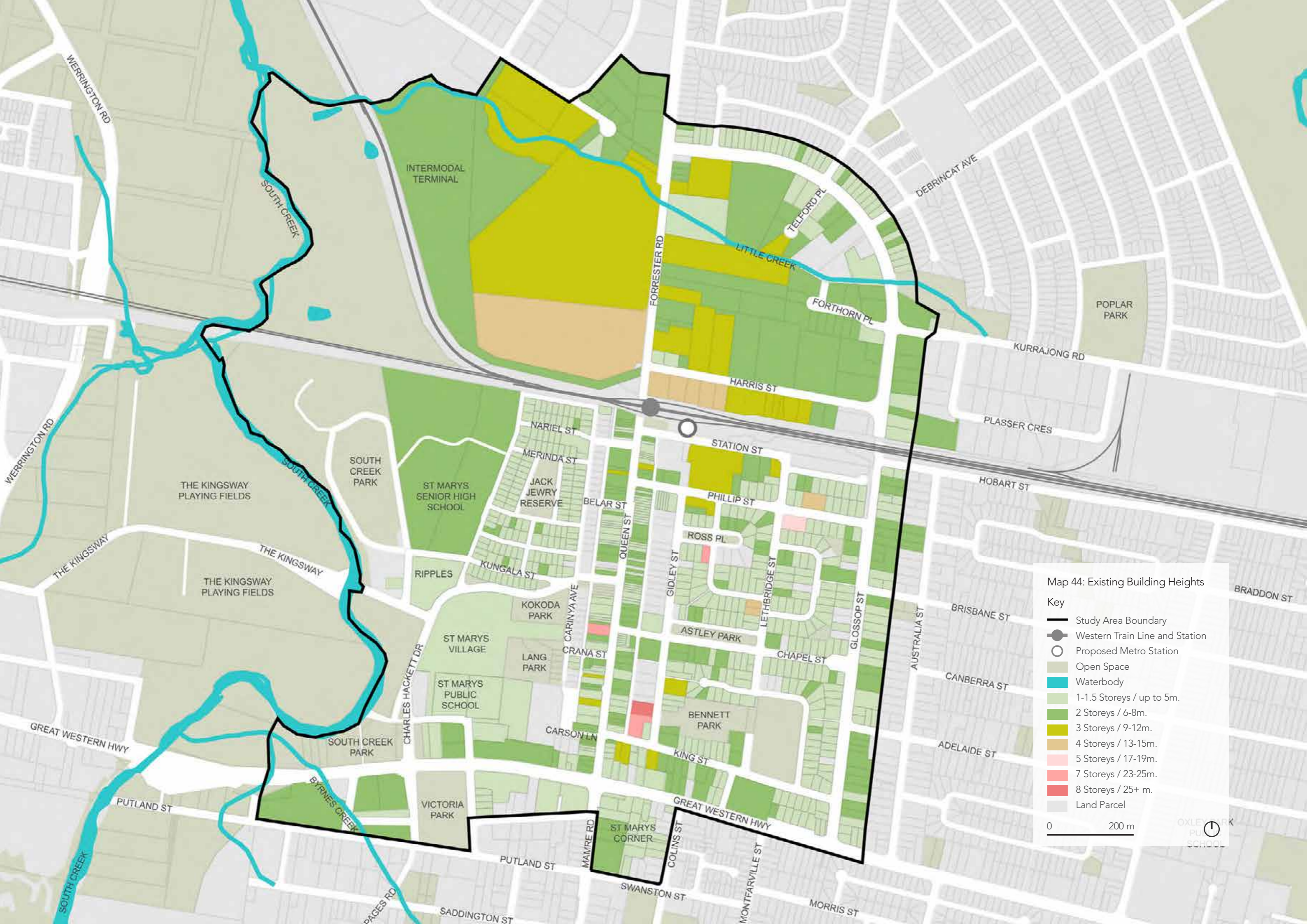
Although the Town Centre is planned for density uplift as per the planning controls prescribed in the Penrith LEP 2010, much development has not yet been realised. For the majority of the sites in the Study Area, there is a gap between the existing building height and the maximum permissible building height in the LEP which indicates unrealised development potential (refer to Map 45). The gap between the two is as high as 6 storeys and beyond, particularly at the northern end of Queen Street, indicating that the area can accommodate significant growth under the current planning controls.

KEY STRENGTHS

- Low scale built form generally not dominating the landscape and offering a 'country town' feel and 'city in its landscape' character
- The community perceives the quiet, country town feel of St Marys as its strength
- Single storey buildings with higher floor-to-ceiling heights along Queen Street offer flexibility of uses over time
- Current planning controls can accommodate growth

KEY CHALLENGES

- Significant gap between existing building heights and maximum permissible building heights in the Penrith LEP 2010 indicates low historical construction and building approvals as a result of market forces
- Opportunity to look at built form controls to ensure that building heights and built form allowed in the Study Area preserve scenic views and not dominate the skyline



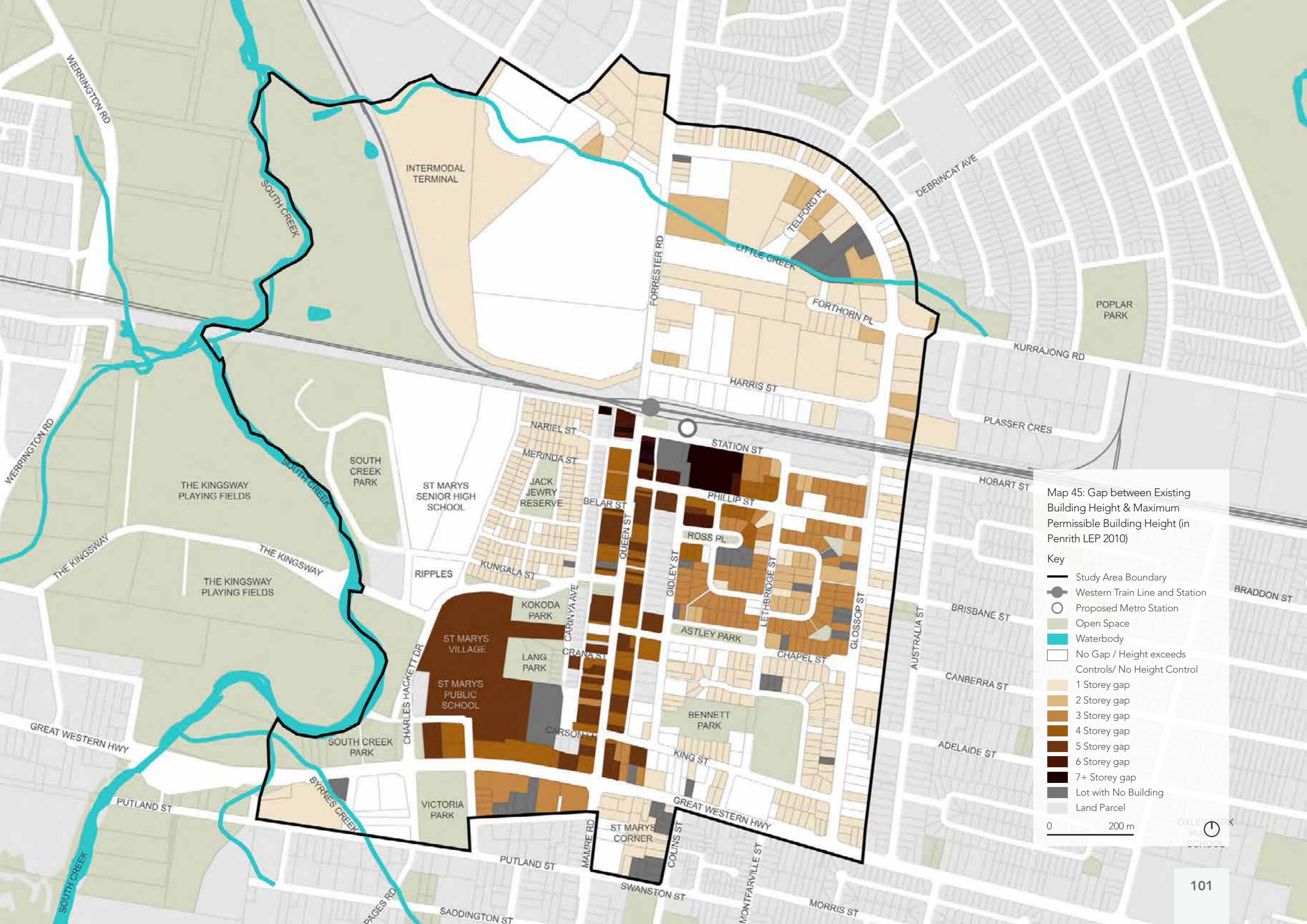
Map 44: Existing Building Heights

- Key**
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - 1-1.5 Storeys / up to 5m.
 - 2 Storeys / 6-8m.
 - 3 Storeys / 9-12m.
 - 4 Storeys / 13-15m.
 - 5 Storeys / 17-19m.
 - 7 Storeys / 23-25m.
 - 8 Storeys / 25+ m.
 - Land Parcel

0 200 m



OXLEY PARK
PUBLIC SCHOOL



Map 45: Gap between Existing Building Height & Maximum Permissible Building Height (in Penrith LEP 2010)

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- No Gap / Height exceeds Controls/ No Height Control
- 1 Storey gap
- 2 Storey gap
- 3 Storey gap
- 4 Storey gap
- 5 Storey gap
- 6 Storey gap
- 7+ Storey gap
- Lot with No Building
- Land Parcel

0 200 m

OXLEY PARK
PUBLIC
SCHOOL

BUILT FORM

BUILDING FORM - PUBLIC DOMAIN INTERFACE

Queen Street has predominantly human-scale, fine grain retail frontages creating a vibrant and amenable streetscape for pedestrians. Buildings along this street are mostly single storey with service, retail, hospitality or commercial uses on the ground floor. Buildings retain a distinctive front setback that results in varying but wide footpath ranging between 3 and 7m in width. The widest footpaths are around the central portion of the main street, allowing room for the movement of pedestrians as well as for group seating and planting. However, outdoor dining activity is limited within the Town Centre.

The vast majority of buildings along Queen Street have awnings. Awnings tend to be low set and run along long sections of the street, providing not only weather protection but an element of continuity in the streetscape. They play an important part in identifying shops and providing advertising signage.

The interface between buildings and the public spaces has a significant role to play in influencing the perception of safety in the adjoining public space. Active frontages tend to make public spaces feel safer. However not all parts of the St Marys Town Centre are well activated. Past engagement in St Marys has revealed a perception of poor safety and antisocial behaviour, particularly at night.

Buildings along the east-west streets do not provide the same level of activation or awnings as that along Queen Street. The street wall extends along the streets to the east of Queen Street more than that to the west. There is an opportunity to extend active ground floor uses towards the west of Queen Street to integrate it better with the St Marys Village shopping centre.

The laneways parallel to Queen Street do not have any active frontages. The large footprint centres such as St Marys Village shopping centre and Aldi supermarket are internalised and have inactive frontages. There are opportunities to activate the streets/spaces surrounding these centres. The concentration of vacancies at the northern end of Queen Street negatively impacts the vibrancy of that area. Several businesses along Queen Street have roller shutters.

The NSW Bureau of Crime Statistics data indicated a high frequency of recorded non-domestic assault incidents and incidents related to malicious damage to property and robbery in St Marys, particularly near the train station (Night Time Economy Audit, 2019). There are opportunities to improve activation and surveillance, particularly at this northern end of Queen Street and along the laneways, car parks and through-site links to improve both actual and perceived safety in the public domain.



Fig. 77: Active frontage with awning



Fig. 78: Active frontage with no awning



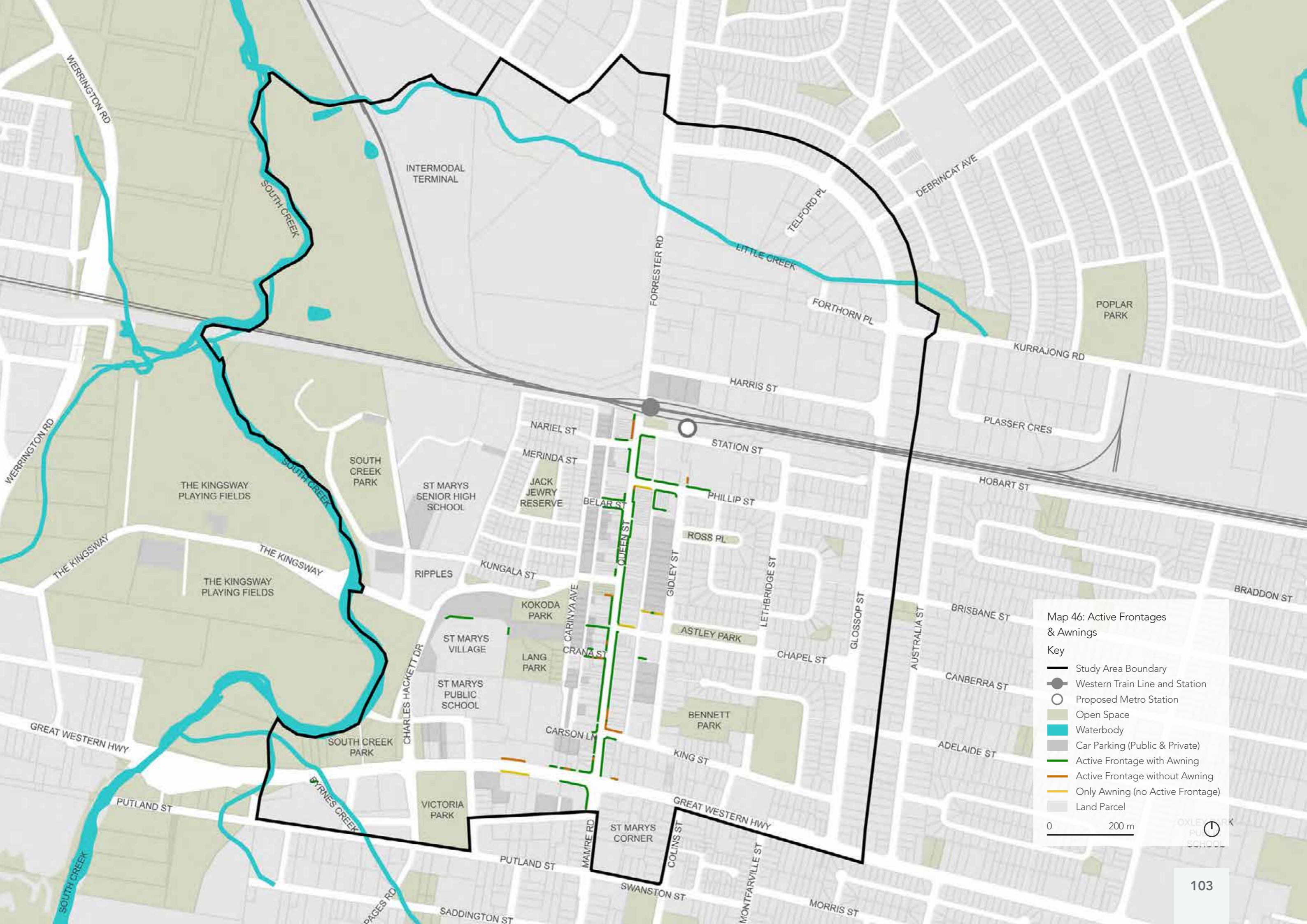
Fig. 79: Facade with awning but no active frontage

KEY STRENGTHS

- Fine grain shopfronts along Queen Street add to its unique character and vibrancy. The main street has been upgraded with investment in seating, planting and public art
- Fairly continuous awnings along the main street that provide shelter, visual continuity and space for shopfront advertising

KEY CHALLENGES

- St Marys Village shopping centre is internalised, lacking active frontages and is not operational in the evenings
- Low levels of actual and perceived safety in the Town Centre, particularly near the train station which has a cluster of vacancies and dilapidated built form
- The community mentioned the need to improve visual appeal in the Town Centre. This issue includes the concern around the appearance of shopfronts along Queen Street, lack of design quality and visual appeal of old buildings and the need to upgrade/invest in well-designed public open spaces



Map 46: Active Frontages & Awnings

Key

- Study Area Boundary
- Western Train Line and Station
- Proposed Metro Station
- Open Space
- Waterbody
- Car Parking (Public & Private)
- Active Frontage with Awning
- Active Frontage without Awning
- Only Awning (no Active Frontage)
- Land Parcel

0 200 m

OXLEY PARK PUBLIC SCHOOL

BUILT FORM

GROUND LEVEL USES

Economic activity in the Study Area is focussed around Queen Street, in the internalised shopping centres and the industrial lands in Dunheved Business Park. Besides that, the area has residential uses and social infrastructure. A ground floor business audit was undertaken in the Study Area in December 2021. The findings are included on Map 47 on the following page.

MAIN STREET USES

Within the Town Centre (area to the south of the train line), there are around 250 ground floor businesses directly facing a street (excluding businesses inside 'big box' shopping centres). The highest percentage of these are service businesses (approximately 35%) and retail businesses (28.5%). Service businesses are located all along Queen Street but more concentrated in the north at the intersection of Phillip Street and Queen Street and to the south between Chapel Street and the Great Western Highway. Retail businesses are focussed in the central part of Queen Street.

The Town Centre has around 15.5% hospitality businesses. Distinct hospitality clusters can be observed around the Nariel Street - Queen Street intersection, King Street - Queen Street intersection and along the Great Western Highway. The Town Centre has a low percentage of commercial ground floor businesses (around 12%), clustered around the pedestrian link between Queen Street and East Lane and between Chapel Street and King Street.

Queen Street is quite thriving with a low ground floor vacancy rate of about 8%. Vacancies are clustered in the northern part of Queen Street near the train station. Trading activity is limited along east-west streets and in private arcades.

INDOOR SHOPPING CENTRES

The Study Area has a few stand alone 'big box' commercial/retail centres with multiple tenancies located off Queen Street. With their own parking facilities, these destinations work like one-stop shop style centres tending to draw footfall away from the main street and impact its viability.

St Marys Village shopping centre located along Charles Hackett Drive has 15,600sqm of retail floor space. Its anchor tenant is Woolworths supermarket. There is an opportunity to better connect this centre with the main street. Astley Centre at the intersection of Mamre Road and the Great Western Highway is another commercial centre, with approximately 800sqm of retail floor space. It mostly has service businesses and a small supermarket. There is also a standalone Aldi supermarket located along the Great Western Highway. The Study Area previously had the Station Plaza shopping centre with 7,500sqm of retail floor space and Coles as its major tenant. This site has been acquired by Sydney Metro.

INDUSTRIAL AREA

The industrial area to the north of the train line has a mix of manufacturing, construction, retail, service and commercial

businesses. This is part of the wider Dunheved Business Park precinct, which is one of five primary industrial precincts in Penrith LGA. Council's adopted ELS recognises the importance of this precinct for the area and the wider region.

Some premises in and around this area have Environment Protection Licences (EPLs) under the Protection of the Environment Operations Act 1997. This includes the Autopak-Vetlad facility (EPL1035) within the Study Area and premises such as the Southern Oil Collection facility (EPL 20268), Nassif Civil facility (EPL 20975), Cooper's Environmental Waste Recycling facility (EPL 12473) and Hi Quality Waste Management facility (EPL 5857) beyond the Study Area. It is important to maintain appropriate separation between these facilities and any sensitive receivers, such as mixed used development areas.

SOCIAL INFRASTRUCTURE

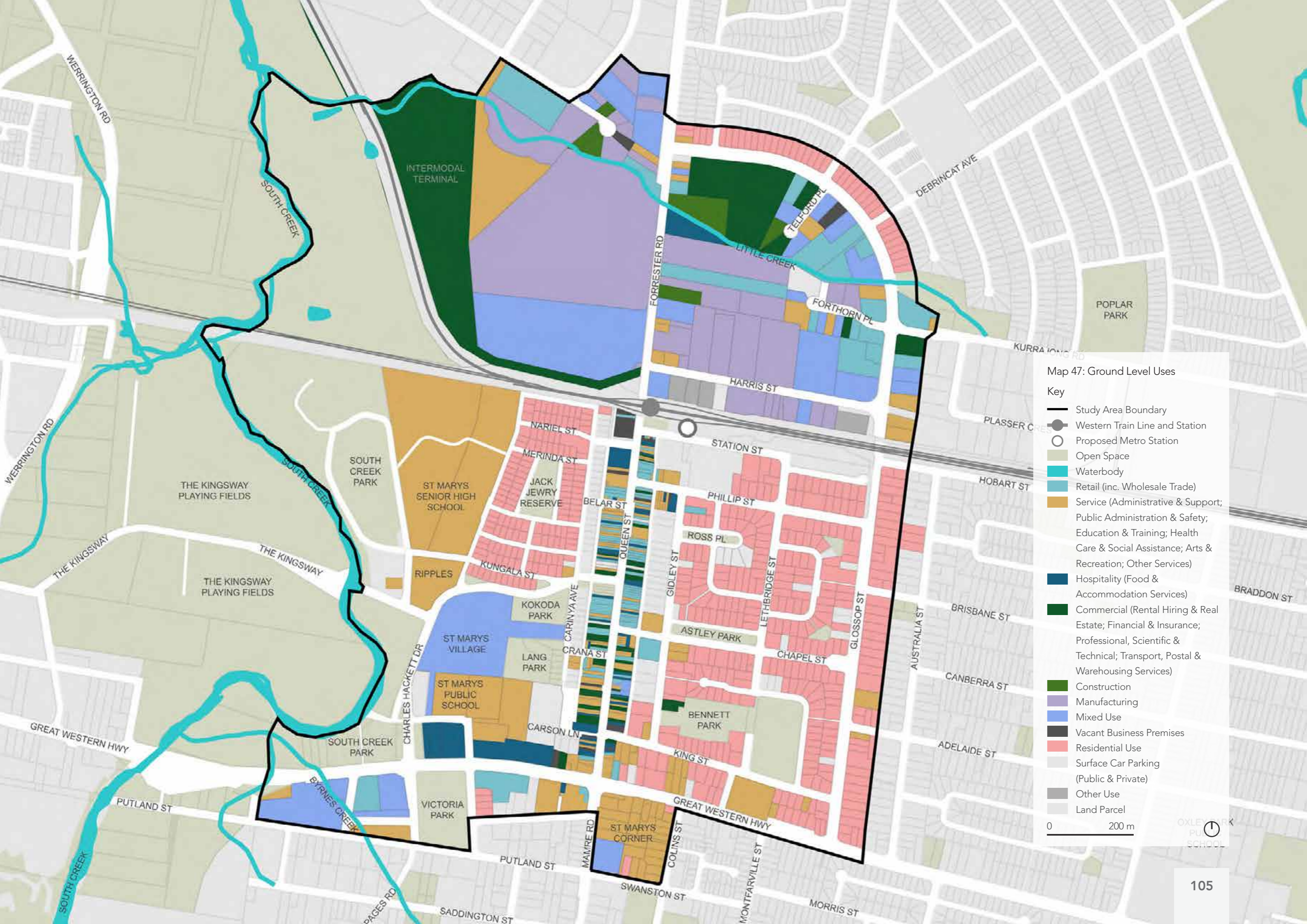
The community facilities across the Study Area are quite segregated. St Marys Corner has a cluster of such services and facilities. These serve a regional catchment but are disconnected from the main street, the train/metro station and other civic uses in the Town Centre. There is an opportunity to better integrate community and cultural facilities with the Town Centre in addition to the library and other community destinations, creating a civic heart and improving legibility and walkability. The 'Schools, Community Facilities and Indoor Recreation' chapter of this document describes this in more detail.

KEY STRENGTHS

- Diverse economic activities distributed across the Study Area - main street retailing, indoor shopping centres and industrial lands
- A thriving main street with clustered fine grain businesses and a low vacancy rate
- A high percentage of service and retail businesses













KEY CHALLENGES

- Indoor 'big box' shopping centres offer convenience and anchor retail tenants, but are car oriented and tend to draw people away from the main street, thus impacting the viability of retail/commercial activities along Queen Street
- Commercial ground floor space is low compared to service, retail and hospitality businesses in the Town Centre
- Social infrastructure across the Study Area is segregated, with some facilities not well accessible on foot or by train



Map 47: Ground Level Uses

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  Retail (inc. Wholesale Trade)
-  Service (Administrative & Support; Public Administration & Safety; Education & Training; Health Care & Social Assistance; Arts & Recreation; Other Services)
-  Hospitality (Food & Accommodation Services)
-  Commercial (Rental Hiring & Real Estate; Financial & Insurance; Professional, Scientific & Technical; Transport, Postal & Warehousing Services)
-  Construction
-  Manufacturing
-  Mixed Use
-  Vacant Business Premises
-  Residential Use
-  Surface Car Parking (Public & Private)
-  Other Use
-  Land Parcel

0 200 m



UTILITIES

Council has started identifying issues in the provisions of some of the utilities in the Study Area. Engagement will be undertaken with utility service providers as part of the future St Marys Town Centre Master Plan. The future Master Plan will address key issues and articulate the improvements required to utility infrastructure to support the growth of St Marys.

DRINKING WATER, WASTE WATER & RECYCLED WATER

Sydney Water is the primary service provider for drinking water and wastewater, recycled water and some stormwater services across Greater Sydney and the Illawarra region.

Preliminary inputs from Sydney Water have revealed that there is sufficient water servicing capacity in the system to service the future development as per the proposed vision for St Marys, with some amplifications, adjustments, and/or minor extensions potentially required to service high demand buildings. However, the St Marys Wastewater Treatment Plant and the wastewater trunk network do not have sufficient capacity to service future growth.

Sydney Water's inputs reveal that there are no recycled water schemes available in St Marys Town Centre; however opportunities exist to consider recycled water initiatives in the future.

Council will continue to work with Sydney Water to ensure the delivery of appropriate and sustainable drinking and waste water services as the City grows. Council will also discuss opportunities for enhanced water efficiency with Sydney Water.

ELECTRICITY

Endeavour Energy is the supplier of electricity in St Marys. The Study Area has a high transmission power line in the industrial block to the north of the train line, running east west along Little Creek.

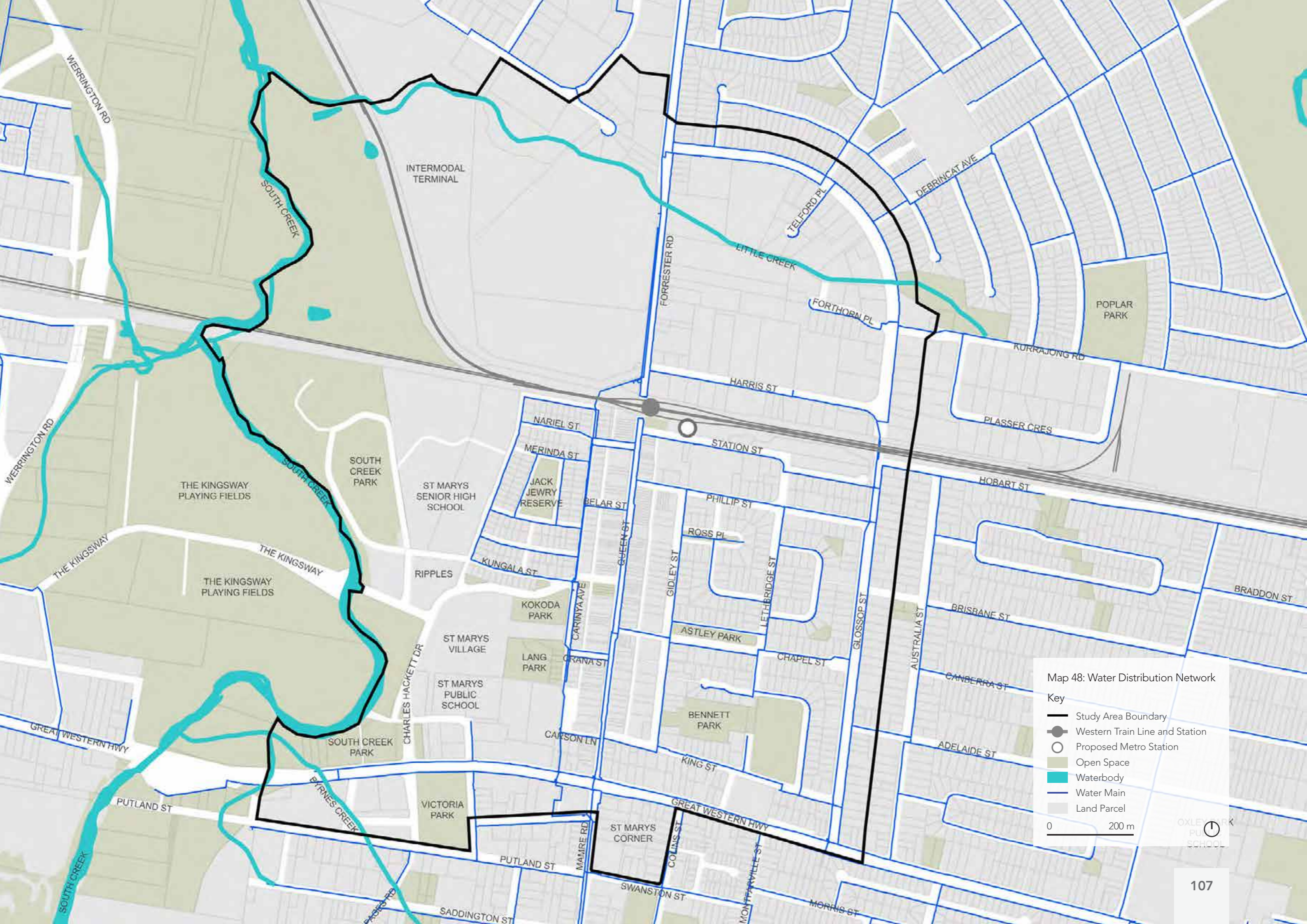
Power lines in the Study Area, particularly along Queen Street, impede the planting of larger trees and impact urban heat as well as the amenity and comfort of open spaces. The high-transmission lines come with significant infrastructure that not only has the potential to limit the use of open spaces along their corridors, but also offers poor visual amenity. The future St Marys Town Centre Master Plan should investigate opportunities for undergrounding electrical services in St Marys Town Centre.

KEY STRENGTHS

- Preliminary inputs from Sydney Water have revealed sufficient water servicing capacity in the system to service the proposed development in St Marys








KEY CHALLENGES

- Existing stormwater system in St Marys is at capacity
- St Marys Wastewater Treatment Plant and the wastewater trunk network do not have sufficient capacity to service future growth
- There are no recycled water schemes available in St Marys Town
- Power lines along Queen Street cause limitations for planting large canopy trees
- High transmission power lines negatively impact the visual amenity of some open spaces



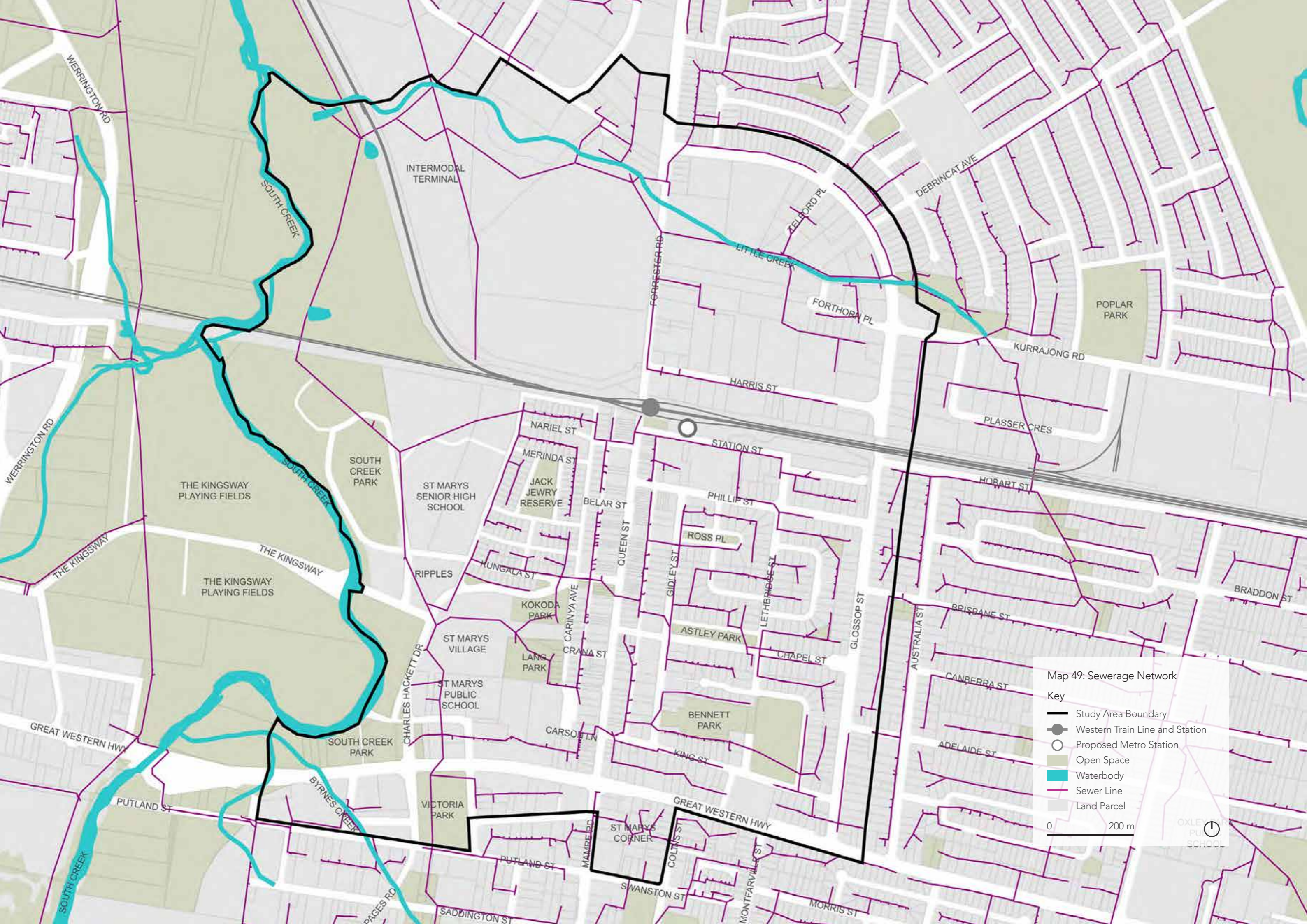
Map 48: Water Distribution Network

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  Water Main
-  Land Parcel

0 200 m

OXLEY PARK
PUBLIC SCHOOL



Map 49: Sewerage Network

Key

-  Study Area Boundary
-  Western Train Line and Station
-  Proposed Metro Station
-  Open Space
-  Waterbody
-  Sewer Line
-  Land Parcel

0 200 m

OXLEY PUBLIC SCHOOL



Map 50: Electricity Network

- Key
- Study Area Boundary
 - Western Train Line and Station
 - Proposed Metro Station
 - Open Space
 - Waterbody
 - Electricity Transmission Line
 - Electricity Easement
 - Electrical Substation
 - Land Parcel

0 200 m



ST MARYS: STRENGTHS, ISSUES & OPPORTUNITIES


















This chapter provides a summary of the thorough research and analysis of the existing conditions of St Marys Town Centre described in the previous chapter. It outlines fourteen key strengths to be retained and potentially strengthened as St Marys evolves in the next 20 years. It also identifies twelve top issues to be addressed and improved as part of the St Marys Town Centre Structure Plan and twelve key opportunities for the future of St Marys. The list of strengths, issues and opportunities are the result of months of analysis, research and input from the community, key stakeholders and across Council. Together, these strengths, issues and opportunities provide the framework for **Shaping the Future of St Marys Town Centre**

STRENGTHS

14 KEY STRENGTHS

Following are the fourteen key strengths of St Marys Town Centre to be retained and potentially strengthened into the future. These synthesise a majority of the strengths identified through the analysis.

STRATEGIC CENTRE SERVICING 45,000 PEOPLE (IN 2016) 	HIGH PROPORTION OF GOVERNMENT OWNED LAND 	THRIVING LOCAL BUSINESSES AND INDUSTRIAL LANDS 	T1 WESTERN RAIL LINE, SYDNEY METRO WESTERN SYDNEY AIRPORT LINE AND THE NEW STATION 	DIVERSITY AND INCLUSIVENESS 	COMMUNITY FACILITIES AND EVENTS VALUED BY THE COMMUNITY 	LARGE PROPORTION OF AND ACCESS TO DIVERSE AND AFFORDABLE/ PUBLIC HOUSING 
COMMUNITY SENSE OF PRIDE AND ATTACHMENT 	GOOD QUANTUM OF OPEN SPACE PROVISION AND SOUTH CREEK AS IMPORTANT NATURAL ASSETS 	SENSE OF GREENERY EVERYWHERE 	QUEEN STREET IS ACCESSIBLE AND SOCIABLE 	PUBLIC PARKING AREAS OFFERING LOCAL CONVENIENCE 	CONNECTIONS WITH A RICH HISTORY AND THE PRESENCE OF HERITAGE 	EASE OF DRIVING 

STRENGTHS

STRENGTHS SNAPSHOT

The following section provides a snapshot of the 14 key strengths and also lists any additional strengths that have been identified in the St Marys Town Centre through the research and stage 1 engagement.

STRATEGIC CENTRE SERVICING 45,000 PEOPLE (IN 2016)

- There are existing train connections to other centres
- The community perceives St Marys to be easy to get to by different modes and have a convenient location with proximity to other destinations
- The community perceives that St Marys has a lot of services already and offers a great starting point for further growth compared to other locations along the metro route
- The Town Centre offers over 3,500 jobs (2016 data)

HIGH PROPORTION OF GOVERNMENT OWNED LAND

- Government assets provide essential social and transport infrastructure and open spaces for residents
- High percentage of land is publicly owned by Council and the NSW Government
- Large government landholdings present opportunities for strategic redevelopment and improved community outcomes, such as the provision of affordable housing, employment and community facilities.
- Several key sites in the hottest parts of the Study Area are publicly owned, thus government can be the catalyst for mitigating the heat island effect and developing strong controls to increase tree canopy cover and WSUD

THRIVING LOCAL BUSINESSES AND INDUSTRIAL LANDS

- Diverse economic activities are distributed across the Study Area, including main street retailing, an indoor shopping centre and industrial lands
- There is a strong business community with long-standing established family owned businesses and small businesses; some of which are destination places
- Industrial uses on the northern side of the rail line are complementary to the Town Centre. Industrial lands are protected by planning controls
- The Town Centre has a thriving main street with clustered fine grain businesses and a low vacancy rate

STRENGTHS

T1 WESTERN RAIL LINE, SYDNEY METRO WESTERN SYDNEY AIRPORT LINE AND THE NEW STATION

- There are existing train connections to other centres
- There is a good frequency of eastbound and westbound trains during peak hours
- Investment in the Sydney Metro Western Sydney Airport line will improve St Marys' regional connectivity, catalyse local growth and enhance the role of St Marys as a strategic centre
- St Marys is in close proximity to employment areas in The Quarter and within a short travel time to the new Airport/ Aerotropolis

DIVERSITY AND INCLUSIVENESS

- There is an established and growing population
- There is a rich diversity of the community in terms of ages, ethnic/cultural, linguistic and socio-economic backgrounds contributing to the social richness of the area
- The community perceives the centre to have a communal and welcoming village atmosphere and a vibrant, youthful, non-homogeneous and unique place experience

COMMUNITY FACILITIES AND EVENTS VALUED BY THE COMMUNITY

- St Marys Town Centre has a diversity of key community, educational, healthcare, sporting and recreational facilities, some of which serve as regional destinations
- Ripples Leisure Centre and Hydrotherapy Centre is a key landmark that offers important local and regional programs and services by Council for health, fitness and education
- Some spaces at St Marys Corner such as the Memorial Hall are very popular and draw people from areas beyond the LGA boundaries
- St Marys Library provides digital support and study/ meeting spaces
- The community values and participates in community events/ activations as well as sporting events. The BMX track supports BMX competitions and training and attracts Sydney-wide visitation, particularly from young people

LARGE PROPORTION OF AND ACCESS TO DIVERSE AND AFFORDABLE/PUBLIC HOUSING

- Rents and house prices in St Marys are more affordable than other places in Greater Sydney
- There is a significant social housing stock within proximity to public transport, services, jobs and recreation. This provides essential long-term and secure rental accommodation to vulnerable community members
- There is a diversity of housing types to the east of Queen Street, including town houses and flat buildings in proximity of the train station

STRENGTHS

COMMUNITY SENSE OF PRIDE AND ATTACHMENT

- St Marys Town Centre offers a communal and welcoming village atmosphere
- The community feels a sense of personal belonging and connection to the place

GOOD QUANTUM OF OPEN SPACE PROVISION AND SOUTH CREEK AS IMPORTANT NATURAL ASSETS

- There is a good quantum and distribution of green open spaces of varying types in St Marys
- South Creek Park is a major regional open space and a key asset that offers specialist sporting facilities and draws extensive footfall during competitions/ events
- The watercourses in the Study Area offer cooling and ecological benefits and potential for enhanced opportunities for recreation
- Coachmans Park is a key civic space offering opportunities to sit, stay and socialise
- Bennett Park is planned to be upgraded in the next five years

SENSE OF GREENERY EVERYWHERE

- St Marys is 'a town in its landscape'. Tree canopy along South Creek, green ecological corridors and views to the Blue Mountains can be experienced from various points in the Town Centre
- Significant scenic views to the Blue Mountains offer a unique sense of place, legibility and orientation
- Terminating vista along Queen Street and local views to South Creek aid local wayfinding and legibility
- Predominantly low height / human-scale built form and east-west orientation of streets allows views to green spaces/ mature tree canopy
- Presence of native vegetation in parts of the Study Area promotes biodiversity
- Parts of the Study Area, particularly along South Creek, Champness Crescent and around St Marys Public School, have high tree canopy

QUEEN STREET IS ACCESSIBLE AND SOCIABLE

- Queen Street is walkable due to its wide footpaths, fairly continuous awnings and presence of planting, seating and public art
- Predominantly 1 to 3 storey fine grain built form along Queen Street contributes to its unique character
- Queen Street is at the heart of the local community
- Investment in art, seating and planting, lighting and trees along Queen Street has been well-received and respected by the community
- Fairly continuous awnings along the main street provide shelter, visual continuity and space for shopfront advertising
- Active frontage controls (in the Penrith LEP 2010) along Queen Street promote passive surveillance and interesting streetscapes

STRENGTHS

PUBLIC PARKING AREAS OFFERING LOCAL CONVENIENCE

- Public car parking located at the back of Queen Street makes shopping or visiting St Marys Town Centre a convenient experience for people arriving by car, while providing a pedestrian-friendly environment along Queen Street
- The community perceives the availability and convenience of parking in the Town Centre as a strength

CONNECTIONS WITH A RICH HISTORY AND THE PRESENCE OF HERITAGE

- St Marys has a multi-layered Aboriginal and Torres Strait Islander and European culture, heritage and history
- Heritage buildings and infrastructure in the centre contribute to its visual appeal and sense of place
- Queen Street's public domain reflects a representation of post-settlement historic narratives
- South Creek is a great natural asset that contributes to the scenic and landscape character of the area. Environmental Conservation zoning along South Creek helps to protect and manage the watercourse and its ecological, hydrological and scenic values
- St Marys' community values its heritage assets

EASE OF DRIVING

- St Marys Town Centre has an established urban structure and effective street grid particularly around Queen Street and to the north-east of Queen Street
- Studies indicate that road capacity meets demand for the current population
- The Study Area has key freight routes (Great Western Highway, Glossop Street and Forester Road)
- Easy of driving and convenience have been identified as a strength by the community during stage 1 community engagement activities
- East and West lanes play an important movement function in terms of providing access for service and delivery vehicles; thus enabling better street interface and activation along Queen Street, creating a people-friendly main street environment

OTHER STRENGTHS

- The community perceives St Marys' quiet, country town feel as a strength
- Preliminary studies indicate that the current Penrith LEP 2010 zoning, height and FSR controls have sufficient theoretical capacity to accommodate anticipated population and dwelling growth
- Past planning proposals for various sites in the Study Area included conditions for open space improvements and affordable housing
- Heat Island DCP controls will contribute to addressing the issue of heat in the Town Centre
- Private parking provisions offer convenience to the local community
- Preliminary inputs from Sydney Water have revealed sufficient water servicing capacity in the system to service the proposed development in St Marys

ISSUES

12 KEY ISSUES

Following are the top twelve issues in St Marys Town Centre to be addressed through the Structure Plan. These synthesise a majority of the issues identified through the analysis.

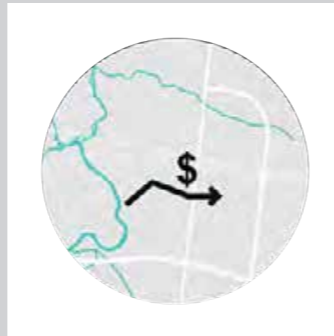
SOCIAL INFRASTRUCTURE NOT FIT FOR PURPOSE



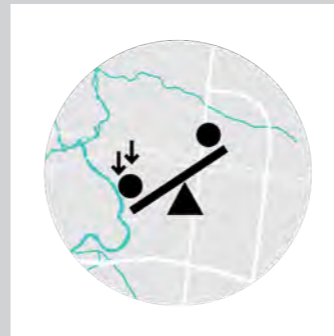
RECURRING FLOODING AND STORMWATER INFRASTRUCTURE AT CAPACITY



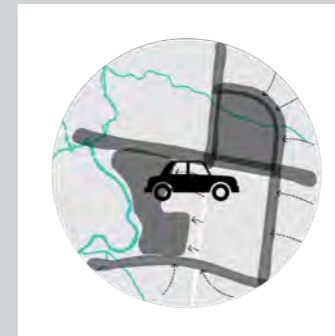
NEED TO IMPROVE ECONOMIC ATTRACTION



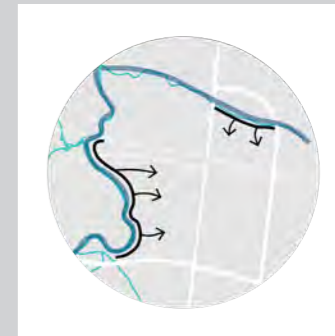
SOCIAL DISADVANTAGE AND VULNERABILITY



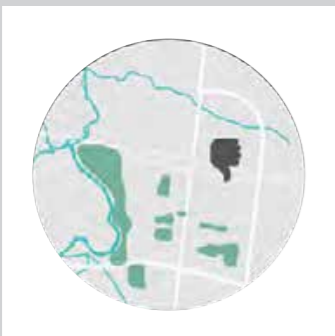
CAR-DOMINATED ENVIRONMENT SURROUNDED BY PHYSICAL BARRIERS



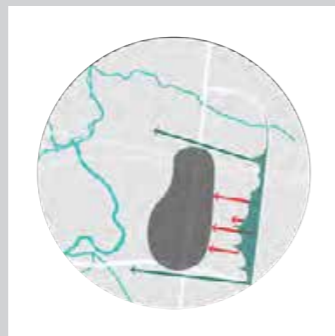
A CENTRE THAT TURNS ITS BACK ON SOUTH CREEK



GAP IN OPEN SPACE PROVISION, QUALITY AND DIVERSITY



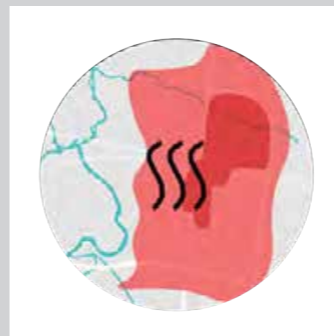
LACK OF RECOGNITION OF VIEWLINES IN PLANNING CONTROLS



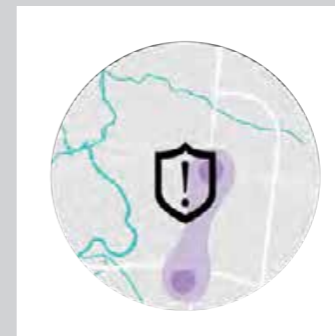
UNDERUSED OFF-STREET PUBLIC CAR PARKING



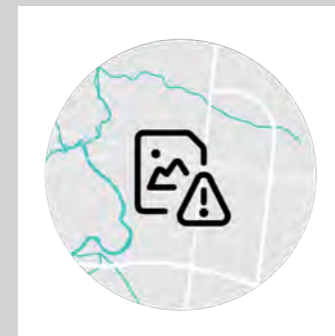
URBAN HEAT AND CARBON EMISSIONS



PERCEIVED OR REAL LACK OF SAFETY



VISUAL APPEAL NEEDS IMPROVEMENT



ISSUES

ISSUES SNAPSHOT

The following section articulates the top twelve issues and also lists any additional issues that have been identified in the St Marys Town Centre through the research and stage 1 engagement.

SOCIAL INFRASTRUCTURE NOT FIT FOR PURPOSE

- Community infrastructure is located throughout the Town Centre in separate buildings and locations, with a cluster of facilities co-located at the St Marys Corner. However, there is no identified community hub within the core of the Town Centre
- Current floor space of the St Marys Library does not meet the size needs of the current community and will not meet the needs of a growing St Marys' population into the future. The library has limited flexible multi-purpose space to support programming
- There is significant provision of community spaces within the Town Centre and St Marys Corner, but not all of them are well used. Some are fit for single purpose uses only and many have restrictions on users and are not open for the general public to access
- There is a lack of publicly accessible cultural facility floor space suitable for local communities to participate in cultural and creative expression, learning and participation
- Ripples Leisure Centre is at capacity and requires upgrade and future planning
- The heat within this area can rise to as much as 50°C in summer months. The current design and layout of many of the community facilities do not mitigate well against urban heat impacts or offer refuge from the heat
- There are significant barriers to accessing the St Marys Corner site by foot and on bicycle - far from train station and located on a major freight movement corridor

RECURRING FLOODING AND STORMWATER INFRASTRUCTURE AT CAPACITY

- Existing stormwater system is at capacity, aggravating overland flooding risk and limiting growth of the centre
- Some watercourses in the Study Area are in the form of concrete canals or subsurface drainage systems
- Different types of flooding impact various parts of the Study Area and impact safety and resilience

ISSUES

NEED TO IMPROVE ECONOMIC ATTRACTION

- St Marys has a diverse economy, but there is an absence of outdoor dining and night time economy, office spaces, tourism and creative industries. Further investigation is required to better understand potential barriers and come up with solutions to encourage outdoor dining provision and night time economy in St Marys
- There is low provision of commercial office spaces
- Neighbouring centres such as the Penrith CBD, Mount Druitt, etc. are competitors for St Marys
- There is a lack of competition for a supermarket due to the closure of Coles
- Controls allow for non-residential uses at Ground Level and Level 1 in the Town Centre Core, but significant investment is yet to come
- Controls allow for housing diversity but significant investment is yet to occur
- Land ownership is fragmented along Queen Street and to the west of Queen Street, making it harder to amalgamate lots for redevelopment in these locations
- Slow pace of development in the Town Centre is evidenced by the low number of development approvals

CAR-DOMINATED ENVIRONMENT SURROUNDED BY PHYSICAL BARRIERS

- There are major physical barriers for people accessing the centre on foot or bike:
 - The railway line is a barrier for cross rail connectivity for bikes and mobility scooters. The existing overbridge does not provide easy, safe and pleasant cross-rail access. The new metro concourse building will not provide easy, free, 24/7 north-south access
 - Large blocks to the west of Queen Street (including government owned land parcels) impede permeability of the area due to the lack of formalised through-site links
- Places such as St Marys Corner and the residential area in North St Marys are disconnected from Queen Street and the train station due to busy vehicular roads/ large blocks without active transport connections
- Through-site links to the east of Queen Street are illegible or of poor quality/unsafe
- Narrow footpaths, lack of dedicated pedestrian crossings and low levels of shade make walking uncomfortable in the area beyond Queen Street
- Lack of separated and interconnected bike paths in the Town Centre discourage bike use. Lack of safe and convenient regional bicycle infrastructure does not encourage cycling for short journeys up to 15 minutes
- Observed through-traffic of motorists and traffic congestion in the centre of St Marys (Queen Street and Charles Hackett Drive) undermines place amenity and economic vitality. This may detrimentally impact amenity and safety of pedestrians and cyclists
- The road infrastructure disincentivises walking and cycling. Queen Street's place function is constrained due to higher volumes of through-traffic, rather than destination traffic. Queen Street and Charles Hackett Drive are dominated by bus movement, impacting local walking and cycling amenity
- Freight movement along Glossop Street and Forrester Road impact pedestrian/ cyclist safety. Majority of the crashes involving pedestrians and cyclists are either in the northern part of Queen Street or along Forrester Road and Glossop Street
- Bus services need improvement. Regional bus connectivity is poor with low frequency, currently operating at a 30-minute interval during peak hours

ISSUES

SOCIAL DISADVANTAGE AND VULNERABILITY

- St Marys' population is characterised by:
 - Variety of indicators that lead to lower levels of household income including: housing stress, higher rates of unemployment, higher rates of disability
 - Lower resilience of the community to stresses, shocks and disasters
 - Large proportion of people with lower levels of education
 - Higher percentage of housing/rental stress. This could increase due to gentrification process
 - High Heat Vulnerability Index of 5/5 (most vulnerable)
- Potential displacement of key workers/vulnerable community members if housing affordability is not addressed
- Urban renewal in the centre may cause unaffordability and trigger displacement of local businesses

A CENTRE THAT TURNS ITS BACK ON SOUTH CREEK

- The southern portion of South Creek Park is not 'activated' and has a lack of activity diversity and amenity
- South Creek Park is not easily accessible from Queen Street
- Interfaces of existing creeks are underused – creeks are not treated as assets for people and nature, and there are no walking trails along the creeks
- Surface car parking detracts from the amenity, visual appeal and environmental values of the South Creek riparian corridor

GAP IN OPEN SPACE PROVISION, QUALITY AND DIVERSITY

- Some parts of the Study Area (area in the north-east) are underserved by open space
- There is sufficient amount of open space but open spaces across the centre lack activity diversity and amenity and need upgrading and improvement. In some instances, the community referred to the need for better-maintained open spaces
- Land contamination increases operational cost for capital works by at least 50%
- There is a lack of a high-quality civic park/central park
- Two small triangular-shaped open spaces in the centre located on leftover land parcels are difficult to access and not safe
- Flood / storm inundation of the sports infrastructure is a constraint
- Decrease in community land with some open spaces being classified as operational lands
- Not all existing public open spaces have been zoned for Public Recreation 'RE1' or Environmental Conservation 'C2' in the Penrith LEP 2010, leading to a potential gap in open space provision if any existing public open spaces are re-purposed in the future
- The Outer Sydney Orbital may impact the South Creek Park, potentially reducing its size, amenity and function at a time when the population of the Town Centre is expected to grow

ISSUES

LACK OF RECOGNITION OF VIEWLINES IN PLANNING CONTROLS

- Opportunity to look at built form controls including building heights, bulk and setbacks to ensure that new built form in the Study Area does not dominate the landscape and helps preserve scenic views

UNDERUSED OFF-STREET PUBLIC CAR PARKING

- Public car parking is valued by the community, but the community identified the need for car parking to be improved
- There are extensive areas of underused public car parking. Sydney Metro Parking Survey (2019) indicated that many off-street car parks, particularly away from the train station and to the east of Queen Street were underused (only up to 89% occupancy during peak hours). Occupancy was lower in the evening peak compared to the morning peak
- Extensive public parking in the area incentivises car use and exacerbates urban heat (due to asphalted surfaces and lack of tree canopy and water sensitive design)

URBAN HEAT AND CARBON EMISSIONS

- St Marys experiences the Urban Heat Island Effect which impacts local liveability and health. The Town Centre was 2.4°C warmer during the night compared to the surrounding residential areas in the summer of 2019
- St Marys experiences some of the warmest night time temperatures during heatwaves in the LGA
- The Study Area has high concentrations of populations who are extremely vulnerable to the adverse effects of heat - reflected through a high Heat Vulnerability Index of 5/5 (most vulnerable)
- The Study Area has extensive hardscapes. It also has a low and variable tree canopy cover of 13%, (lower than the Penrith LGA average canopy cover of 21.29% and much less than half of the Greater Sydney average of 35.29%). Canopy cover is particularly low around the train station, Queen Street, surface parking areas and in the industrial area to the north. Streets have a very low tree canopy cover of 6%
- Tree planting is impacted by issues such as underground unforeseen/unidentified services and site contamination. Overhead power lines and land contamination also limit ability to plant trees and increase shade

ISSUES

PERCEIVED OR REAL LACK OF SAFETY

- The community raised the following concerns in the stage 1 engagement:
 - Day and night safety primarily around the train station (note: the area near the train station has a cluster of vacancies, dilapidated built form and lack of day and night businesses, which may contribute to the community's sentiments around low safety)
 - Overall feeling of lack of safety at night, including Queen Street, Coachmans Park and some nearby streets
 - Anti-social behaviour and illicit drug use
- St Marys Village shopping centre is internalised and lacks active frontages
- NSW Bureau of Crime Statistics (BOCSAR) data from 2018 indicated high frequency of recorded non domestic assault incidents and incidents related to malicious damage to property and robbery in the Town Centre

VISUAL APPEAL NEEDS IMPROVEMENT

- The community identified the need to upgrade/invest in well-designed public open spaces
- The community identified the poor appearance of shopfronts along Queen Street as something to be improved
- Majority of the building stock is old. Some old buildings lack design quality and visual appeal
- In some cases, recently constructed buildings are not sympathetic to the character of Queen Street
- FSR control currently applies only to the Town Centre Core - lack of FSR control in other areas may result in unreasonable building bulk
- Overhead power lines result in poor visual amenity of some streets and open spaces

OTHER ISSUES

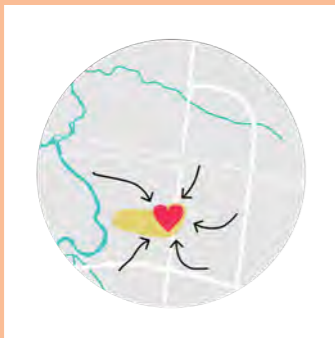
- Some sites and places of Aboriginal significance have not yet been identified and protected
- Some potential items of heritage significance have not yet been adequately investigated and protected
- Fragmentation of native vegetation is an issue
- Ongoing impacts of heat and drought on canopy health is an issue
- R2 Low Density Residential within 200m from the new Metro Station needs further consideration
- R4 High Density beyond a 10-minute walking distance from the train station is contrary to transit oriented development principles and needs consideration
- The North St Marys' community has poor connectivity to the train station and lower car ownership and public transport mode shares, indicating barriers to accessing regional jobs
- High private car parking in developments may incentivise greater car use and dependency
- Indoor 'big box' shopping centres offer convenience and anchor retail tenants, but are car oriented and tend to draw people away from the main street, thus impacting the viability of retail/commercial activities along Queen Street
- St Marys Wastewater Treatment Plant and the wastewater trunk network do not have sufficient capacity to service future growth
- There are no recycled water schemes available in St Marys Town Centre

OPPORTUNITIES

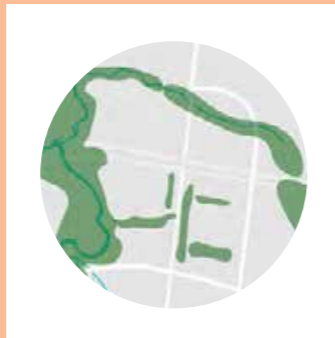
KEY OPPORTUNITIES

Following are the top twelve opportunities in St Marys Town Centre to be considered through the Structure Plan. These respond to the various strengths and challenges identified through the analysis.

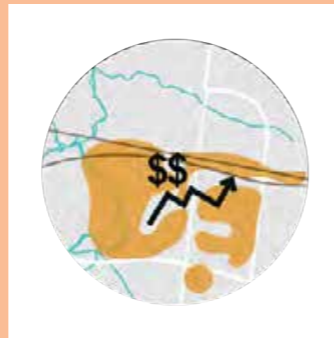
CREATE A CIVIC HEART



MINIMISE FLOOD RISK AND RETAIN WATER UPSTREAM



GOVERNMENTS CAN ACT AS CATALYST FOR INVESTMENT



PLAN A CENTRE FOR ALL



IMPROVE WALKABILITY AND BIKEABILITY



CELEBRATE SOUTH CREEK AS ST MARYS' GREATEST NATURAL ASSET AND ITS SIGNIFICANCE TO COUNTRY



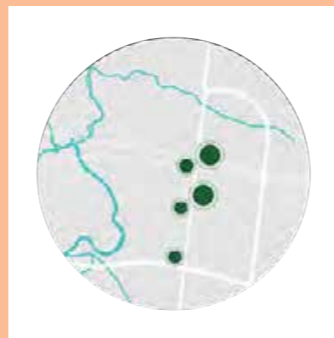
CREATE A SERIES OF HIGH-AMENITY AND INTERCONNECTED OPEN SPACES WITH A DIVERSE ACTIVITY OFFERING



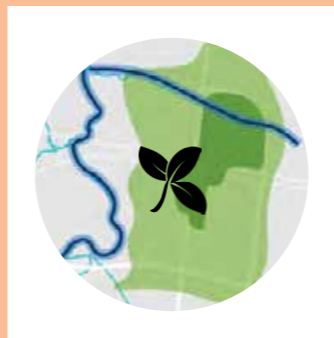
CELEBRATE LOCAL AND REGIONAL VIEWS AND CONNECTION TO NATURE



PLAN FOR THE BEST USE OF OFF-STREET PUBLIC CAR PARKING SITES



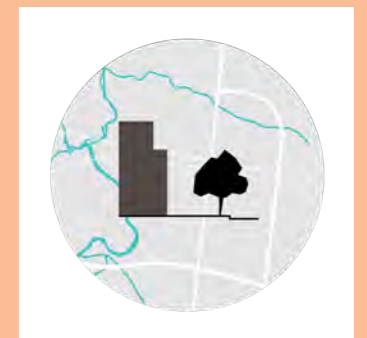
TRANSITION TOWARDS A COOLER, GREENER AND LOW-CARBON FUTURE



PLAN FOR A SAFER PLACE



RETAIN THE VILLAGE FEEL AND IMPROVE QUALITY OF PUBLIC OPEN SPACES AND BUILDINGS



OPPORTUNITIES

SUMMARY OF OPPORTUNITIES

The following section articulates the top twelve opportunities identified through research and stage 1 engagement in the St Marys Town Centre.

CREATE A CIVIC HEART

- Deliver a Community Hub that can provide a range of co-located services
- Deliver a Civic Park/Central Park
- Work in partnership with local Aboriginal and Torres Strait Islander communities to consider the value and benefit of a First Nations cultural space within St Marys
- Deliver additional cultural space that meets the identified needs of the local community
- Investigate opportunities for St Marys Corner:
 - Maximise the continued use of well-functioning facilities such as the Memorial Hall
 - Consider relocation or incorporation of appropriate community and cultural uses to upgraded or new facilities within the Town Centre, to support access and increased usage and more multi-purpose, multi-user spaces

MINIMISE FLOOD RISK AND RETAIN WATER UPSTREAM

- Prepare a holistic water management plan to reduce overland flow and flood risk and retain water in the landscape, integrating WSUD and strategic stormwater infrastructure upgrades
- Reduce hardscaped areas and integrate WSUD features
- Look for ways to passively irrigate street trees using stormwater
- Integrate raingardens in naturalised trunk drainage paths to promote runoff volume reductions
- Use permeable paving for car parks where possible

OPPORTUNITIES

GOVERNMENTS CAN ACT AS CATALYST FOR INVESTMENT

- Preserve and protect thriving well-established businesses, key destinations and industrial lands
- Leverage upon the industrial lands and investment in the metro to intensify and diversify economic activity
- Create a vibrant shopping experience with a range of shops including local and boutique main street businesses, art and makerspaces, supermarkets and major retailers in shopping centres
- Create a dining precinct/ 'Eat street' with a range of eateries and restaurants to dine in, offering a diverse cultural food offering. Eliminate identified planning barriers for private outdoor dining
- Enhance the night time and entertainment offering in the Town Centre, building upon existing clusters along, and branching off, Queen Street
- Build upon the gateway element of St Marys as a key destination for travellers arriving from the airport and offer affordable tourism options and accommodation facilities for families, business travellers, etc.
- Attract investment in A-Grade office spaces (retail, hospitality, finance, accommodation, technology, insurance, creative industry, etc.) to create a diversity of job offerings
- Plan for business and housing affordability to mitigate potential negative impacts of gentrification
- Turn growth and investment into public benefit
- Government-owned land to serve as a catalyst for growth and investment, in addition to the private sector

PLAN A CENTRE FOR ALL

- Foster and plan for an inclusive and safe community
- Support community diversity
- Plan for different needs
- Strive for an affordable centre - retain and improve the mix of affordable rental housing and public housing through new developments & ensure sufficient supply to meet future needs
- Carefully plan and design social housing to co-exist with private housing and minimise stigma
- Provide a diversity of unit sizes and layouts within new apartment buildings

IMPROVE WALKABILITY AND BIKEABILITY

- Open up the centre and 'break' physical barriers through place-based planning and working in collaboration with various agencies
- Adopt a 'pedestrian first' planning approach - this includes widening footpaths, adding crossings where necessary and planting a connected tree canopy to enhance pedestrian comfort
- Improve the quality and legibility of existing through-site links
- Minimise on-road freight impacts on vulnerable road users
- Improve active transport facilities in a 15-minute catchment to encourage a shift from private vehicle use to bike/e-bike journeys
- Develop a holistic movement and place plan to promote modal shift and destination traffic, while discouraging through-traffic and traffic congestion
- Consider opportunities for traffic calming on Queen Street and distribute vehicle movements to parallel streets
- Improve bus services

OPPORTUNITIES

CELEBRATE SOUTH CREEK AS ST MARYS' GREATEST NATURAL ASSET & ITS SIGNIFICANCE TO COUNTRY

- Activate South Creek's interface with recreational/ community activities, pedestrian paths, cycleways, etc.
- Maintain and enhance the existing successful recreational uses in the South Creek Park
- Plan the South Creek Park precinct to be integrated with the main street and residential areas
- Plan for environmental protection and better connecting with Country along South Creek
- Manage flood risk carefully

CREATE A SERIES OF HIGH-AMENITY & INTERCONNECTED OPEN SPACES WITH A DIVERSE ACTIVITY OFFERING

- Upgrade existing parks and open spaces
- Form a network of green, cool, walkable, high-amenity, family-friendly and activated open spaces
- Plan to address gap in open space in the north-eastern part of the Study Area
- Consider formally designating open spaces that are currently not zoned for public recreation
- Consolidate and/or sell smaller underused open spaces
- Protect, expand and diversify open spaces to offer activities, including gathering, socialising, play, water play, hosting events, programmed community activities, markets and film screenings, exercising, relaxing, dog-walking and sports
- Consider opportunities for placemaking, public art, Aboriginal, cultural and natural heritage interpretation

CELEBRATE LOCAL AND REGIONAL VIEWS AND CONNECTION TO NATURE

- Review and refine controls (if needed) to preserve scenic views to the mountains
- Plan and refine controls to preserve the sense of a town centre in its landscape, allowing views to mature tree canopy everywhere
- Incorporate greenery in the built form
- Reinforce and create key local viewlines for improving legibility between key destinations
- Protect existing trees

PLAN FOR THE BEST USE OF OFF-STREET PUBLIC CAR PARKING SITES

- Maintain public car parking spaces for shoppers and commuters as St Marys grows but optimise car parking provision on key sites
- Plan for flexible and environmentally friendly car parking spaces
- Prepare a strategic car parking approach through the lens of movement and place to maintain convenience but also provide community benefit and environmental health

OPPORTUNITIES

TRANSITION TOWARDS A COOLER, GREENER AND LOW-CARBON FUTURE

- Adopt urban heat controls
- Promote higher tree canopy, lower asphalted surfaces and retain water in the landscape
- Protect existing trees
- Underground overhead power infrastructure. Where overhead power lines are to be retained, plant trees within road pavement zones and select species that can form continuous canopies under power lines
- Support the provision of infrastructure for electric vehicles
- Reduce local emissions

PLAN FOR A SAFER PLACE

- Improve safety in the town centre, particularly near the train station, Queen Street and Coachmans Park
- Encourage improvements to the night time economy to activate the Town Centre in the evenings
- Create safe open spaces to be outdoors at night
- Improve safety and surveillance by enabling more people to live closer to jobs in the Town Centre
- Improve policing

RETAIN THE VILLAGE FEEL AND IMPROVE QUALITY OF PUBLIC OPEN SPACES AND BUILDINGS

- Protect heritage items and ensure new development is sensitive to their character
- Undertake a heritage assessment for items of potential heritage significance
- Retain the village feel along Queen Street through built form controls
- Create inviting, high quality, fine grain inner-city scale development and shopfronts with a refreshed and modern character
- Ensure clean, well maintained and attractive high-quality public open spaces with landscaping
- Enhance the amenity of the industrial area making it an attractive place to work

OTHER OPPORTUNITIES

- Future proof the centre for the next natural or global disaster or embed innovation through urban renewal
- Consider smart applications such as smart benches, cooling towers/mist, cooler materials, etc.
- Rethink private car parking requirements in developments in the Town Centre considering their proximity to the new metro station
- Consider recycled water initiatives in the future

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