

2 Strategic need and justification

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This chapter outlines the strategic need and justification for the Sydney Metro West Concept with regards to its critical State significance, taking into account the transport and land use challenges that Sydney faces now and into the future. It also provides an outline of consistency within the NSW strategic planning and transport policy framework.

2.1 Secretary’s Environmental Assessment Requirements

The Secretary’s Environmental Assessment Requirements relating to strategic need and justification, and where these requirements are addressed in this Environmental Impact Statement, are outlined in Table 2-1.

Table 2-1: Secretary’s Environmental Assessment Requirements – Strategic need and justification

Reference	Secretary’s Environmental Assessment Requirements	Where addressed
2. Environmental Impact Statement		
2.1	The EIS must include, but not necessarily be limited to, the following:	
	f. a summary of the strategic need with regard to its critical State significance and relevant NSW Government policies;	Sections 2.5 and 2.6
	g. a statement of the strategic objective(s), including: how the Concept will integrate with the broader transport network (existing and proposed);	Section 2.7 Section 2.4 and 2.6

2.2 Background

The Greater Sydney Region Plan: A Metropolis of Three Cities (Greater Sydney Commission, 2018a) sets the 40-year vision to 2056 and 20-year implementation plan for Greater Sydney to become a global metropolis of three unique and connected cities, the Western Parkland City, Central River City and Eastern Harbour City, as shown in Figure 2-1.

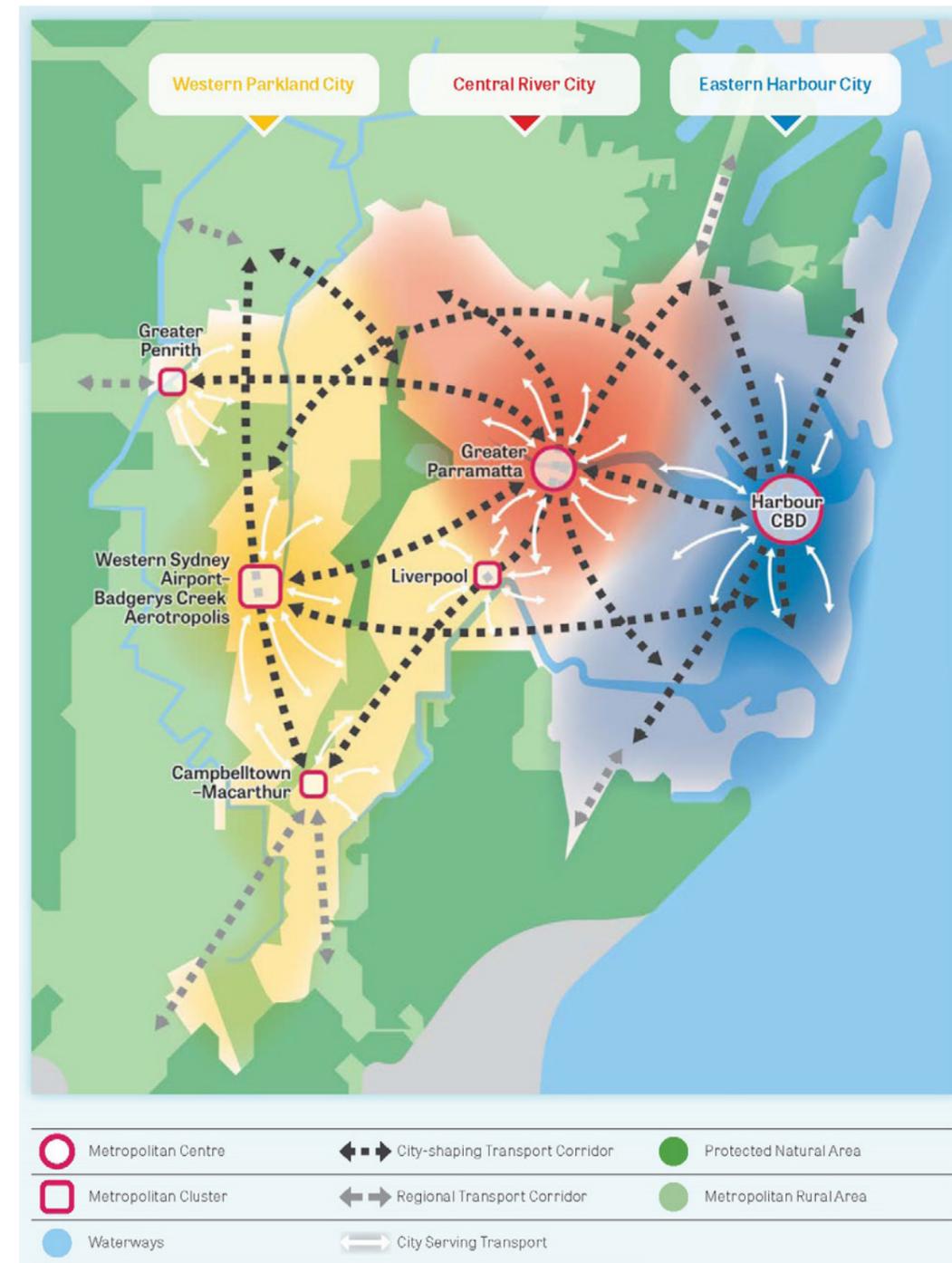


Figure 2-1: A Metropolis of Three Cities (Greater Sydney Commission, 2018a)

By integrating land use, transport and infrastructure across the three cities, people in Sydney will have access within 30 minutes to jobs, schools, hospitals and services.

The plan identifies the following areas of growth over the next 20 years:

- Greater Sydney’s population is forecast to increase from 4.7 million to 6.4 million by 2036 and to eight million by 2056
- A target of 725,000 new homes in Greater Sydney; including 207,500 in the Central River City, and 157,500 in the Eastern Harbour City
- An additional 817,000 jobs are required to meet the needs of a changing economy and workforce
- Daily trips will increase to 22 million within Greater Sydney, and people’s homes, jobs, schools, healthcare and other services will need to be connected to an efficient transport network.

To enable and support this growth, Sydney’s mass transit network must be enhanced to better connect economic centres, and to connect people to jobs, as well as to schools, services and attractions.

2.3 Sydney’s challenges

2.3.1 Population and economic growth

Sydney is Australia’s financial and economic capital, housing half of the country’s globally competitive service sector jobs. Greater Sydney is forecast to grow significantly from a population of 4.7 million to 6.4 million by 2036 (an additional 1.7 million) and 8 million by 2056 (an additional 3.2 million). This expected growth will require places for an additional 817,000 jobs and an additional 725,000 homes by 2036 (Greater Sydney Commission, 2018a).

The Greater Parramatta to Sydney CBD corridor is one of the city-shaping transport corridors nominated in the Greater Sydney Region Plan (Greater Sydney Commission, 2018a). It runs from the heart of Parramatta to the Sydney CBD (refer to Figure 2-1) and includes one of Australia’s largest health, education and research precincts in Westmead, the rapidly growing central CBD at Parramatta, the lifestyle precinct at Sydney Olympic Park, the planned innovation and technology hub at The Bays and the global centre that is the Sydney CBD.

Analysis by Sydney Metro shows that the corridor is of national economic significance. It already contains nearly 620,000 high productivity jobs, which is around 20 per cent of the jobs in Greater Sydney, and generates eight per cent of the nation’s Gross Domestic Product per year. The corridor has some of the most productive centres in Greater Sydney, with the Sydney CBD generating \$96 billion of Gross Domestic Product per year.

Recognising the importance of the corridor, a number of land use planning and development initiatives have commenced. These include:

- State led strategic planning at precincts where the Department of Planning, Industry and Environment would lead strategic planning work to inform future rezoning proposals. Relevant precincts include Westmead and Greater Parramatta to Olympic Park
- Collaborative planning where the Department of Planning, Industry and Environment would play a coordination role to facilitate partnerships across the Department, the local council and other state agencies. Identified precincts include North Westmead, South Westmead, Camellia, Burwood/Strathfield/Homebush, Bays West and Pyrmont
- The Greater Parramatta Growth Area as defined by the Department of Planning, Industry and Environment and the Greater Parramatta to Olympic Park Peninsula Infrastructure Compact being managed by the Greater Sydney Commission
- Significant urban renewal areas in the Parramatta Road Corridor Urban Transformation Strategy area.

These areas are shown on Figure 2-2. Westmead, Parramatta, Sydney Olympic Park, The Bays and the Sydney CBD account for more than 60 per cent of planned population growth and more than 80 per cent of planned jobs growth in the corridor by 2036.

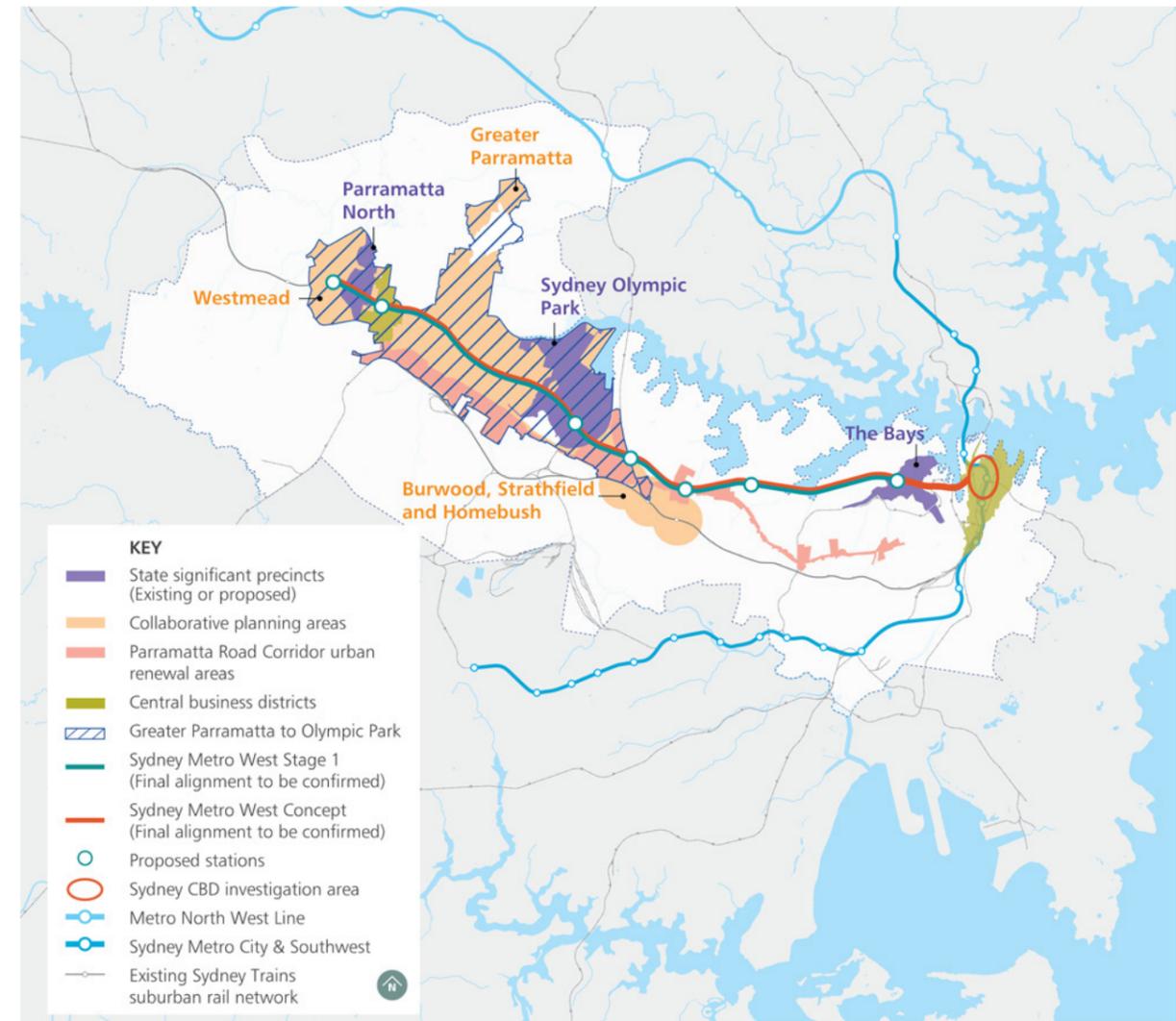


Figure 2-2: Planned growth areas in the Greater Parramatta to Sydney CBD corridor

2.3.2 Transport capacity, accessibility and reliability

Sydney Trains suburban rail network is the backbone of the city’s public transport system, which connects the city’s skilled workforce with high value employment land located in Sydney’s established and growing economic corridors. Data from Transport for NSW shows that over the past five years there has been about a 29 per cent increase in demand across Sydney’s rail network. Sydney Trains data shows that Sydney’s rail network now carries 420 million customers per year, up from 326 million customer trips five years ago. This is an increase of more than 90 million journeys.

Sydney’s growing population will continue to increase demand on the existing transport network. By 2056, NSW transport networks will need to accommodate 28 million trips per day (Transport for NSW, 2018).

Key challenges include increasing capacity on the network to ease congestion and support growing demand, as well as providing rail services to areas that have not previously been serviced. Analysis undertaken by Sydney Metro showed that in 2017, the T1 Western Line moved around 19,100 people each morning in the one-hour AM peak (8am-9am). Around 43,700 people in the one-hour AM peak travelled from Parramatta to the Sydney CBD on all lines (T1 Western Line, T9 Northern Line, T2 Inner West and Leppington Line, and intercity services), which collectively operated at about 85 per cent total capacity.

The reliability and capacity of the Sydney Trains suburban rail network, particularly in the Greater Parramatta to Sydney CBD Corridor, is currently constrained by a number of factors, which include:

- The large number of lines which converge in the western rail corridor between Greater Parramatta and the Sydney CBD, including the T1 Western Line, T9 Northern Line and T2 Inner West and Leppington Line. This limits the capacity to increase rail services between Parramatta and the Sydney CBD
- Train timetables that require trains with different service patterns to share the same track, which can result in slower trains delaying all services (including fast and express trains) and requires customer journey trade-offs or further investment in the track network
- Crowded trains with two doors, double decks and 3 + 2 seating arrangements, which are slow to load and unload, resulting in long 'dwell times' (the time a train needs to stop in a station for customers to board and alight). Longer dwell times challenges on-time running of services, and leads to fewer services operating in a given time period
- Crowded CBD stations that rely on stairs instead of escalators as the principal means of accessing platforms and concourse levels
- Sharing of rail infrastructure with freight services, which impacts suburban rail services.

Additionally, access to public transport is limited at key precincts in Sydney which are forecast to have significant employment and housing growth, including:

- Sydney Olympic Park which is currently serviced by the T7 Olympic Park Line. Customers on the T7 Olympic Park Line are required to transfer at Lidcombe to travel to or from the Parramatta or Sydney CBDs
- The Bays, which is set to undergo urban transformation and become a major employment hub and destination. There is no rail connection to White Bay, and capacity constraints on Victoria Road and the Anzac Bridge limit the opportunity to increase bus services. A mass transit solution is required to accommodate growth at The Bays.

Greater Sydney has significantly higher car mode shares than other international cities which leads to increased traffic congestion. This increases travel times for commuters and businesses, reduces reliability and safety and increases noise and pollution for pedestrians and cyclists.

Consequences of forecast customer growth

The existing rail network is congested, with customers on most rail lines often experiencing significant crowding on trains and station platforms during the morning and evening peaks.

Short-term relief in demand would be realised as a result of the new Sydney Metro North West Line (opened in 2019) and Sydney Metro City & Southwest (due to open in 2024).

Despite planned upgrades and the provision of more services, modelling carried out by Sydney Metro shows that the T1 Western Line is forecast to reach capacity in 2024 and the T9 Northern Line is expected to reach capacity in 2027, as shown by Figure 2-3 and Figure 2-4 respectively.



Figure 2-3: Forecast peak patronage in the western rail corridor - T1 Western Line (one-hour AM peak, suburban services only, 2017 to 2051)

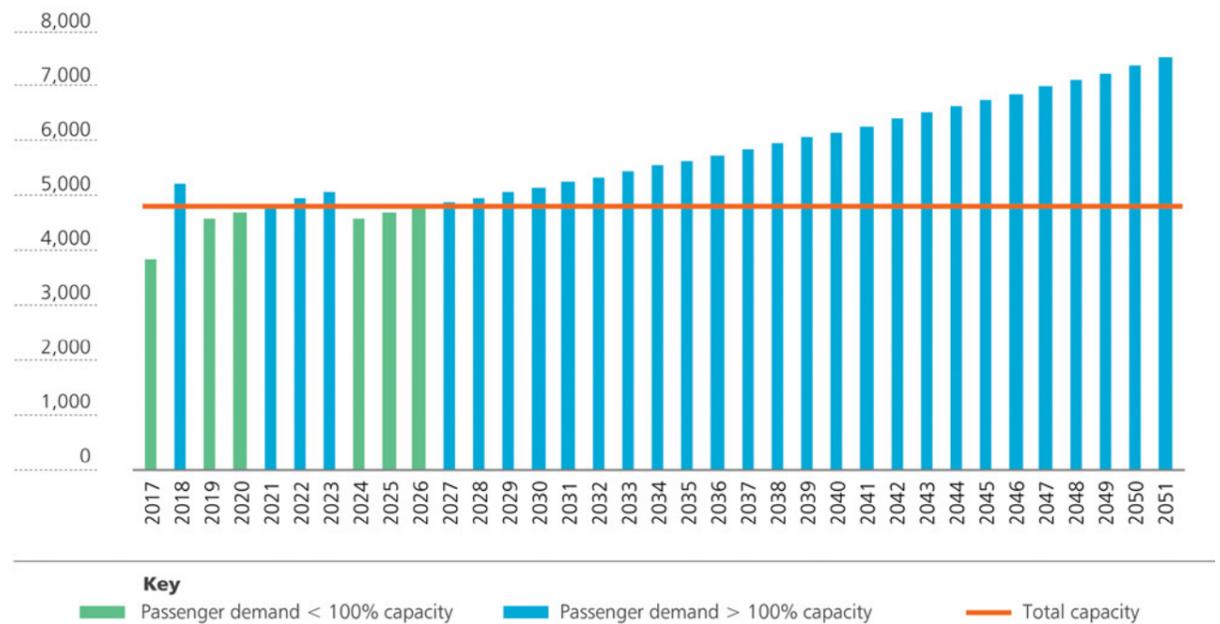


Figure 2-4: Forecast peak patronage in the western rail corridor - T9 Northern Line (one-hour AM peak, 2017 to 2051)

Train and station crowding reduces service reliability, which results in fewer services operating in a given time period and in turn leads to further crowding. Reliability impacts in the Sydney CBD cause network-wide impacts, reducing network capacity and increasing crowding on trains and platforms.

2.4 Key benefits of Sydney Metro West

2.4.1 Transport benefits

Increased transport network capacity

Sydney Metro West would more than double rail capacity from Parramatta to the Sydney CBD with the delivery of a new high capacity rail connection. At ultimate capacity, Sydney Metro West would be able to move more than 40,000 people an hour in each direction and would complement the suburban and intercity services between Parramatta and the Sydney CBD.

Reduced train crowding

By providing additional rail services, Sydney Metro West would significantly reduce train crowding on the T1 Western Line and the T9 Northern Line. This would help improve the reliability of Sydney Trains services and improve customer comfort.

Train crowding relief would occur on parts of the T1 Western Line and T9 Northern Line due to direct interchange with Sydney Metro West; as well as the T2 Inner West and Leppington Line services. This also means more efficient Sydney Trains services in the west, outer west and regional areas like the Blue Mountains due to resulting improved capacity on the T1 Western Line. Based on modelling carried out by Sydney Metro, the expected passenger volumes compared to the capacity of the lines, with and without Sydney Metro West at key locations along each line, is shown by Figure 2-5 and Figure 2-6 respectively.



Figure 2-5: T1 Western Line passenger volume compared to capacity – 2036

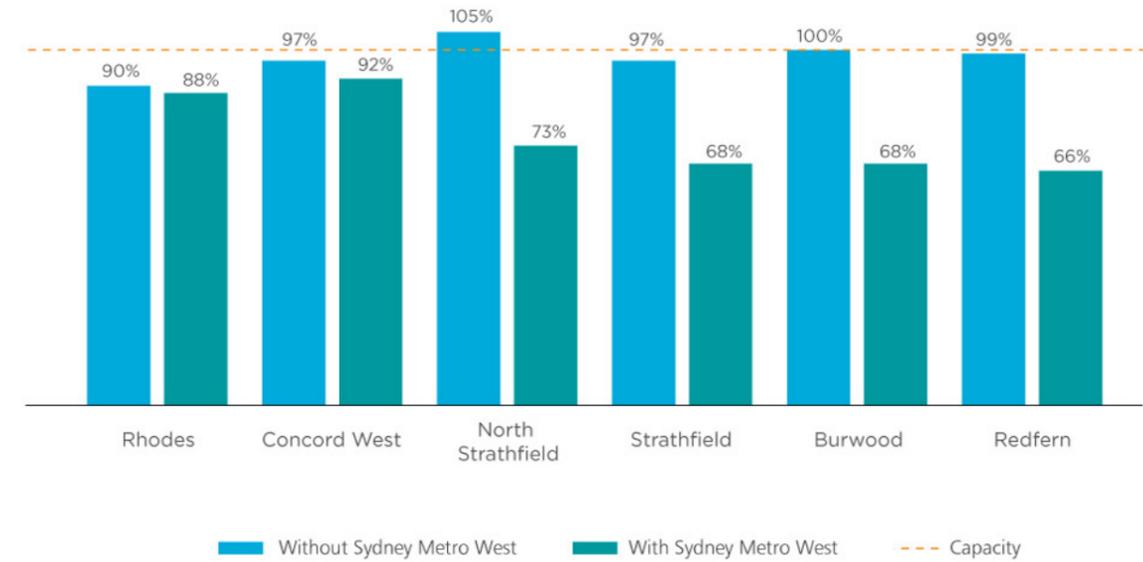


Figure 2-6: T9 Northern Line passenger volume compared to capacity – 2036

Reduced station crowding

The introduction of new rail services and infrastructure, including new stations in the Parramatta and Sydney CBDs, would reduce congestion and help alleviate platform and station crowding. Reduced platform and station crowding would shorten the time spent by customers in heavily crowded platform conditions and improve network performance by reducing station dwell times (and therefore improve travel times).

Sydney Metro West would help to reduce crowding at:

- The busiest CBD stations
- Strathfield Station
- The existing Parramatta Station due to the delivery of a new metro station in Parramatta and interchange at Westmead.

Crowding at existing stations, such as Epping and Burwood, would also be reduced.

Figure 2-7 and Figure 2-8 show forecast changes to passenger movements (i.e. the redistribution of passengers due to differing trip choices), and therefore the potential changes to station crowding at existing stations with and without the Sydney Metro West in the years of 2036 and 2056. Reduced crowding is also expected at Central, Town Hall and Wynyard Stations. The extent of reduced crowding would be confirmed once the optimum location of the Sydney CBD Station is determined. Westmead and North Strathfield stations would become key interchanges as part of Sydney Metro West and would be designed to accommodate an increase in customers.



Figure 2-7: Forecast passenger movements (2036 AM peak) at key stations with and without Sydney Metro West



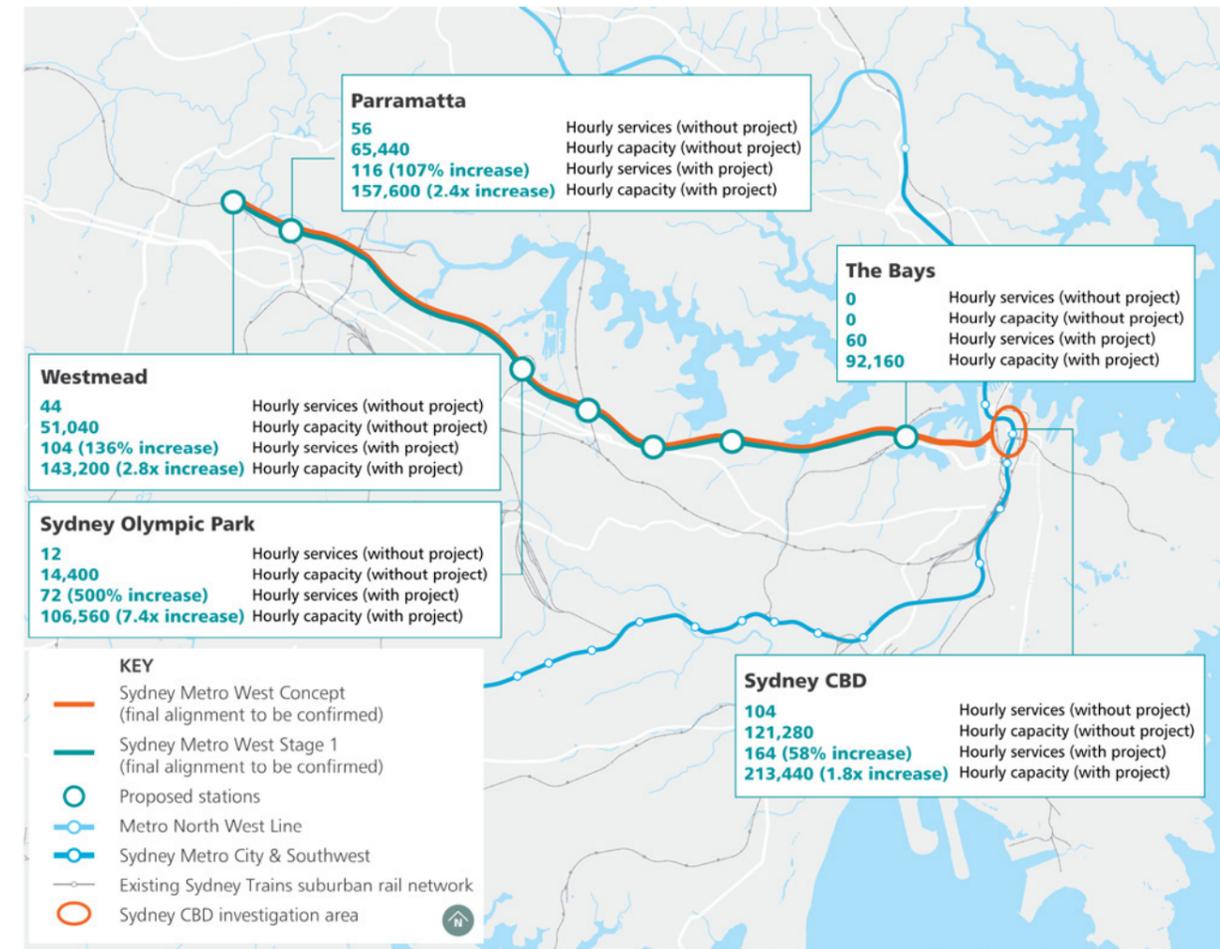
Figure 2-8: Forecast passenger movements (2056 AM peak) at key stations with and without Sydney Metro West

Increased accessibility to key centres

Sydney Metro West would substantially improve the public transport network accessibility to key economic centres across the Greater Parramatta to Sydney CBD corridor. It would:

- Increase accessibility to the future key centre at The Bays, which is not currently serviced by the existing suburban rail network
- Increase rail services and overall rail capacity to Westmead, Parramatta, Sydney Olympic Park and the Sydney CBD.

A summary of additional train services and capacity to key economic centres across the corridor based on modelling by Sydney Metro is shown on Figure 2-9. This provides a comparison of existing services and capacity, compared to ultimate capacity of Sydney Metro West.



Note: The Sydney CBD data does not include train services and capacity provided as part of Sydney Metro City & Southwest

Figure 2-9: Increased network capacity and accessibility to key economic centres (ultimate capacity, one-hour AM peak)

Increased public transport network reach and use

Sydney Metro West would increase the reach (the catchments from which customers access the public transport network) and use of Sydney’s public transport network by:

- Providing new stations at localities not serviced by the existing Sydney Trains suburban rail network, including Burwood North, Five Dock and The Bays
- Increasing the number of customers who are able to access the Parramatta and Sydney CBDs by rail
- Providing a more direct connection to Sydney Olympic Park. Customers on the T7 Olympic Park Line are currently required to transfer at Lidcombe to travel to or from the Parramatta or Sydney CBDs
- Providing additional interchange capability at Westmead, North Strathfield and in the Sydney CBD.

Improved travel times

Sydney Metro West would create a significant opportunity to improve travel times by providing:

- More direct routes between areas with existing rail services
- Access to rail services in areas that currently do not have train stations
- Reduced crowding on trains and at some stations, leading to improved service reliability
- A high-frequency service, with customers able to ‘turn-up-and-go’ and no longer rely on timetables.

The largest travel-time savings would be experienced in areas where:

- New stations are provided in areas currently not serviced by the existing suburban rail network, such as Burwood North, Five Dock and The Bays
- More direct routes are provided, such as trips from Parramatta to the Sydney CBD and to and from Sydney Olympic Park
- Customers could more efficiently transfer between services at new stations – including at Westmead and North Strathfield.

Sydney Metro West would also improve connections between key employment centres, enabling journeys between centres such as Parramatta to Chatswood and Sydney Olympic Park to North Sydney to take 30 minutes or less. Based on an interchange between Sydney Metro West and Sydney Metro City & Southwest in the Sydney CBD, there would also be improved travel times between Greater Parramatta and other parts of Sydney including the North Shore and the Northern Suburbs.

Table 2-2 illustrates the forecast travel time savings on key routes based on modelling undertaken by Sydney Metro. Sydney Metro West would also result in travel time savings to the Sydney CBD. The details of these travel time savings would be confirmed once the location of the Sydney CBD Station is determined, however indicative travel time savings have been included in Table 2-2.

Travel times to the Sydney CBD with Sydney Metro West are approximated and would be confirmed once the location of the Sydney CBD Station is determined.

Sydney Metro West would attract some customers from further west of the Sydney Metro West corridor (that is, west of Westmead), who would use Sydney Metro West for part of their journey by interchanging at Westmead instead of using the suburban rail service the whole way to reach their destinations. For trips originating from Penrith to the Sydney CBD, it is expected that Sydney Metro West would attract around 41 per cent of these customers due to the net travel time saving, even when including interchange time.

Table 2-2: Travel-time savings between key locations (2036)

Locations	With/without Sydney Metro West	Approximate travel time	Approximate travel time saving
In the corridor			
Parramatta to Sydney CBD	Without project	31 minutes	About 10 minutes
	With project	Target of about 20 minutes	
Sydney Olympic Park to Parramatta	Without project	23 minutes	19 minutes
	With project	4 minutes	
Sydney Olympic Park to Sydney CBD	Without project	38 minutes	More than 20 minutes
	With project	Less than 15 minutes	
Burwood North to Parramatta	Without project	24 minutes	15 minutes
	With project	9 minutes	
Five Dock to Sydney CBD	Without project	45 minutes	More than 35 minutes
	With project	Less than 10 minutes	
The Bays to Sydney CBD	Without project	25 minutes	More than 20 minutes
	With project	Less than 5 minutes	
Connecting Western Sydney			
Blacktown to Sydney Olympic Park	Without project	34 minutes	14 minutes
	With project	20 minutes	
Parramatta to Rhodes	Without project	29 minutes	10 minutes
	With project	19 minutes	
Parramatta to Epping	Without project	30 minutes	9 minutes
	With project	21 minutes	
Parramatta to Macquarie Park	Without project	49 minutes	10 minutes
	With project	39 minutes	

Notes:

- No project case travel times derived using existing timetables and Google Maps and assuming an 8am Wednesday departure
- Fastest travel routes using public transport have been assumed
- Station to Station assumes no entry/exit time
- Includes in-vehicle time and accounts for interchange and dwell time
- Based on Sydney Metro City & Southwest being open
- Travel time savings for trips to the Sydney CBD are indicative as no station location has been selected.

Improved resilience to incidents on the network

Shutdowns on the suburban rail network during unplanned and planned events (including periodic maintenance) impact on customer service provision and access to key destinations.

Sydney Metro West would provide an additional, high-capacity public transport link in the corridor between Greater Parramatta and Sydney CBD, which would be separated from the Sydney Trains suburban rail network. This would provide an alternative route for customers during these planned and unplanned events. Sydney Metro West would also enable additional connectivity with interchange opportunities to the wider rail and public transport network, which would reduce the impact on customers during major incidents and increase the resilience of the network.

Opportunity to optimise the bus network

The additional mass transit accessibility and amenity provided by Sydney Metro West would provide the opportunity to optimise the bus network. This could include additional 'feeder services' (services which generally connect customers to rail stations) to Sydney Metro West stations and re-deployment of existing parallel bus services that would duplicate parts of the Sydney Metro West alignment. This would maintain the level of bus services across the network while providing the opportunity to:

- Reduce the number of buses on congested corridors such as Parramatta Road and Victoria Road
- Increase bus services on other parts of the network with lower levels of mass transit accessibility and amenity
- Improve bus travel times to major destinations along the Sydney Metro West corridor.

Road user and community benefits

By encouraging people to use the metro network, Sydney Metro West would provide the opportunity for mode shift from car to public transport. This could result in road user travel time savings by reducing the numbers of vehicles on the road network. Analysis undertaken by Sydney Metro shows that total network wide car trips would be reduced by about 83,000 weekday trips by 2036 and about 110,000 weekday trips by 2056. The potential reduction in private vehicle car use could create benefits in the form of:

- Car use travel time savings and improved reliability for remaining car users who do not shift modes
- Reduction in environmental impacts to communities such as air pollution, greenhouse gas, noise and water pollution.

2.4.2 Productivity benefits

By improving the connections between key economic centres, Sydney Metro West would foster significant growth in jobs. Sydney Metro West would directly support the creation of new jobs within the corridor, particularly at key precincts including Westmead, Parramatta, Sydney Olympic Park and The Bays.

Sydney Metro West would also support:

- Enhanced international competitiveness through increased accessibility to world-class precincts which would be expected to attract international visitors, jobs and investment
- A move to productive jobs by attracting knowledge-based industries that would want to take advantage of the corridor's premier location and presence of knowledge industries in key areas
- Connectivity benefits by enabling an increase in the effective employment density of the corridor and a reduction in travel time between businesses in the corridor. This would effectively bring businesses closer together, supporting increased knowledge transfer, collaboration and innovation.

2.4.3 City-shaping benefits

There is an intrinsic link between public transport and land use change. Access to public transport makes those locations more attractive to live or work. Transport accessibility and amenity (including comfort and convenience for customers) are critical to supporting employment, housing supply and urban renewal opportunities and ultimately to support Sydney's economic and population growth.

Sydney Metro West would provide a significant increase in transport connectivity, capacity and amenity in the Greater Parramatta to Sydney CBD corridor, which would boost the economic productivity of Sydney and facilitate planned land use outcomes in the CBDs, planned precincts and urban renewal areas.

The key city-shaping benefits of Sydney Metro West are detailed below.

Supporting planned growth

New and improved public transport access offers opportunities for transit-oriented development, encourages urban renewal, and allows more efficient use of land within station catchments.

Sydney Metro West would facilitate the growth in jobs, homes and residents that is currently planned for the Greater Parramatta to Sydney CBD corridor. This planned growth in the corridor may not otherwise be achieved without Sydney Metro West as current transport accessibility and amenity would potentially restrict planned growth from being realised by businesses, workers and residents. Growth may otherwise occur in other parts of Sydney without the necessary transport solution.

Based on analysis by Sydney Metro of the population, housing and employment forecasts by Greater Sydney Commission, 2018, Sydney Metro West is forecast to facilitate between 2016 and 2036:

- An additional 169,000 jobs within walking catchments of proposed metro stations. Of these new jobs, about 47 per cent would not otherwise be achieved without Sydney Metro West
- An additional 46,000 homes within walking catchments of proposed metro stations, of which about 43 per cent would not be achieved without Sydney Metro West
- A population increase of 106,000 new residents within walking catchment of proposed metro stations, of which about 44 per cent would not be achieved without Sydney Metro West.

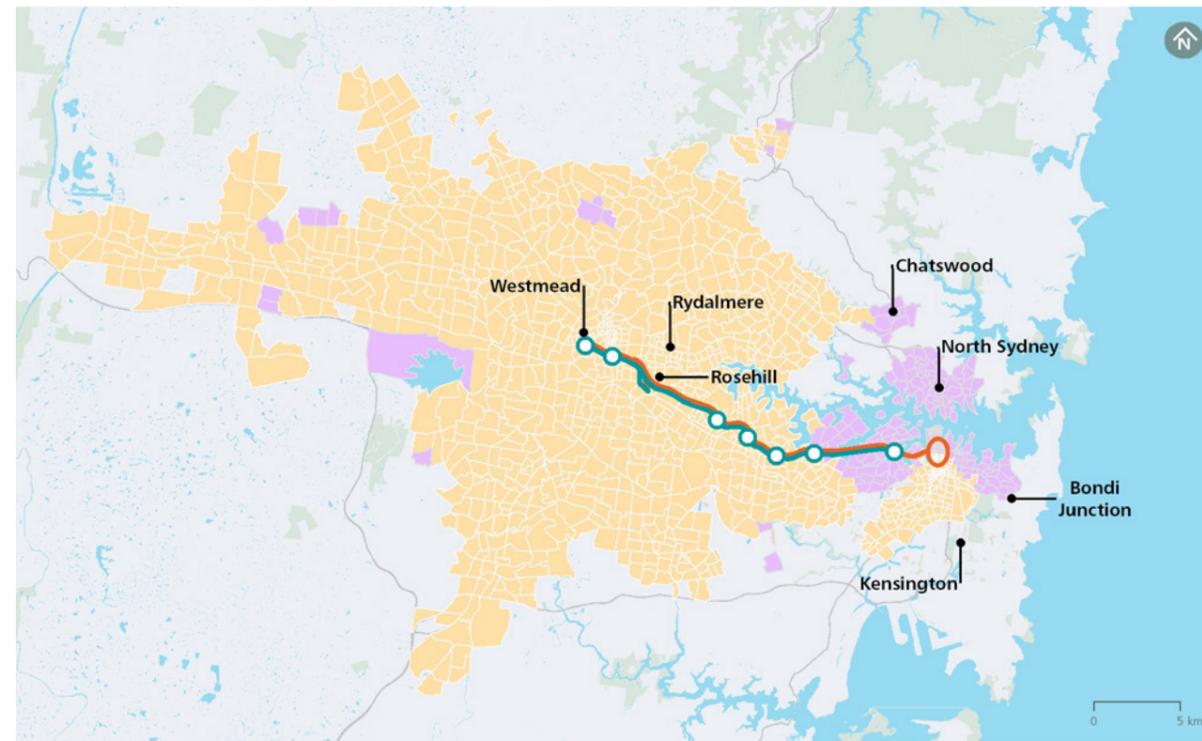
Expanding the 30-minute cities

Sydney Metro West would help implement the vision for 30-minute cities as outlined in the Greater Sydney Region Plan (refer to Section 2.5.2), by providing customers an easy connection to key destinations including cities, health and education precincts, diverse employment centres and residential areas. The catchment of Sydney Metro West would be expanded by interchanges with the suburban rail, light rail and bus networks, allowing a greater number of people to reach key destinations within 30 minutes.

The reach of Sydney Metro West would also be expanded by:

- Bus network optimisation, which would increase the frequency and directness of feeder services to new metro stations
- Integration with the future Parramatta Light Rail Stage 1. Light rail would be complementary to Sydney Metro West by serving local demand across Greater Parramatta and improving the quality of feeder services
- Provision of a new rail interchange at North Strathfield would enable T9 Northern Line customers to more directly access locations to the east or west via Sydney Metro West
- Linking into key active transport (walking and cycling) networks along the corridor.

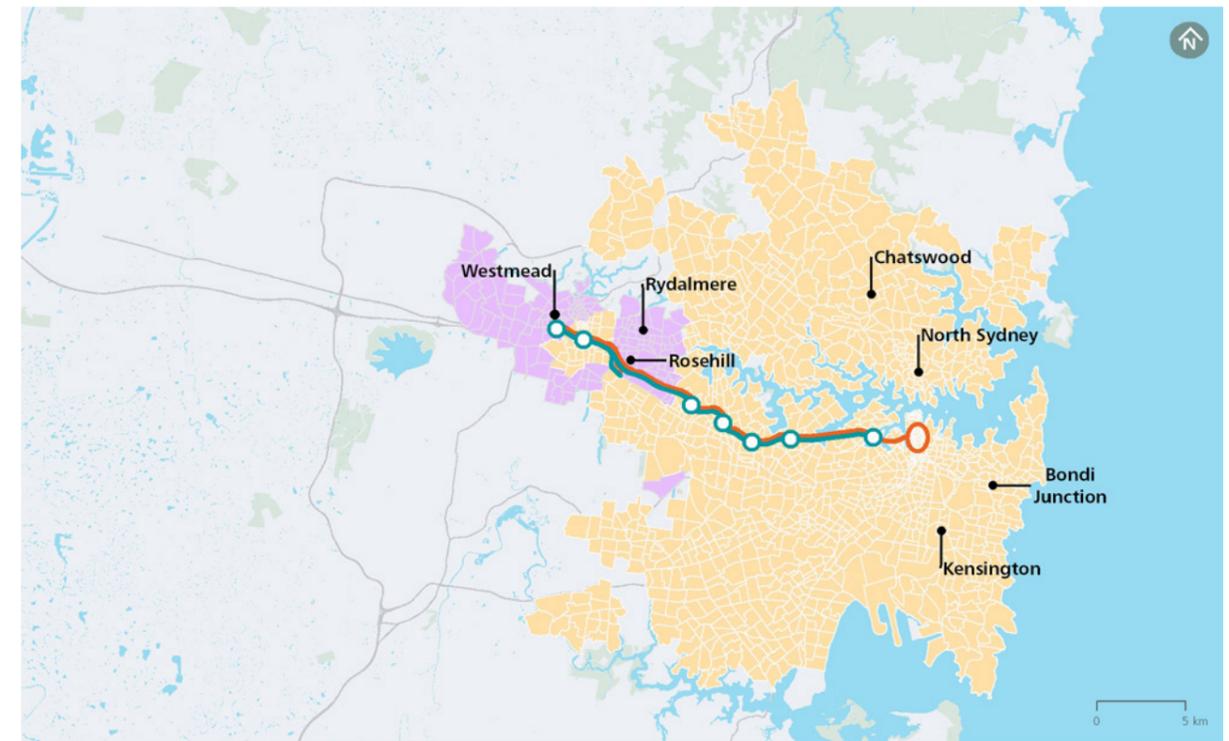
It is forecast that by 2036 Sydney Metro West would facilitate an additional 595,000 jobs and 405,000 people to be within 30-minutes of the Parramatta CBD, and an additional 135,000 jobs and 250,000 people within 30-minutes of the Sydney CBD by public transport. Figure 2-10 and Figure 2-11 provides a comparison of the locations accessible to the Parramatta CBD and Sydney CBD within 30 minutes by public transport with and without Sydney Metro West.



Locations accessible within 30 minutes of Parramatta CBD by public transport (in-vehicle time)

- Sydney Metro West Concept (final alignment to be confirmed)
- Sydney Metro West Stage 1 (final alignment to be confirmed)
- Sydney CBD investigation area
- 30-minute city: without Sydney Metro West
- Expanded 30-minute city: with Sydney Metro West

Figure 2-10: '30-minute city' for Parramatta CBD with and without the Sydney Metro West



Locations accessible within 30 minutes of Sydney CBD by public transport (in-vehicle time)

- Sydney Metro West Concept (final alignment to be confirmed)
- Sydney Metro West Stage 1 (final alignment to be confirmed)
- Sydney CBD investigation area
- 30-minute city: without Sydney Metro West
- Expanded 30-minute city: with Sydney Metro West

Figure 2-11: '30-minute city' for Sydney CBD with and without the Sydney Metro West

Increased all day accessibility

By connecting customers to a diverse range of destinations (such as health and education precincts, diverse employment centres and residential areas) and providing a turn-up-and-go service, Sydney Metro West would enable a wide range of trip purposes, which lends itself to higher all day usage.

Reduced public infrastructure provision and household energy consumption

Sydney Metro West would help to support urban renewal along the corridor. Development within the corridor would provide the opportunity for new homes that use less electricity, gas and water compared to existing larger homes, reducing the cost of living for these households and greenhouse gas emissions.

Housing supply and affordability

Housing affordability is a key issue in Sydney mainly due to strong demand for new homes, limited future housing supply and a relative lack of housing diversity (and associated diversity in housing prices). Sydney Metro West would support planned improvements in land use and a broader range of housing opportunities, which can offer improved and more affordable housing with better access to services and employment, and improved liveability.

Social equity

Sydney Metro West would support the creation of jobs and housing opportunities in Western Sydney, allowing people to live near their place of work. The improved west to east connections would also increase employment options for people in Western Sydney and increase access to services such as educational institutions.

Sustainability, health and amenity benefits

With planned changes to land use, improved accessibility via Sydney Metro West, and by facilitating the development of new homes and jobs, the number of people who live, work in and visit the Greater Parramatta to Sydney CBD corridor is expected to grow. Sydney Metro West would promote more sustainable travel behaviours and enhanced liveability for these people through:

- Opportunities for incidental exercise, with customers able to walk and cycle to and from the stations
- Amenity and placemaking benefits from enhanced pedestrian environments around stations and pedestrian and cycle links
- Opportunities for urban renewal and integrated station and precinct development along the corridor, resulting in better access to jobs and services and improved social cohesion
- Potential to reduce travel related stress for people by offering metro as a travel choice and decreasing the time spent in congested conditions.

2.5 Consistency with strategic planning and policy

Sydney Metro West is consistent with key NSW and Australian Government planning strategies, as outlined in this section.

2.5.1 Building Momentum: NSW State Infrastructure Strategy 2018-2038

The NSW State Infrastructure Strategy (Infrastructure NSW, 2018) sets out independent advice on NSW's infrastructure needs and priorities over the next 20 years across all sectors including transport.

Sydney Metro West supports several of the Strategy's key recommendations including to:

- Support the development of a three-city metropolis for Greater Sydney by investing in transport infrastructure that provides high-frequency and high-volume access to, and connectivity between, each of the three cities, while enhancing local amenity
- Invest in transport infrastructure that is integrated with land use to create opportunities for agglomeration and enhance productivity, liveability and accessibility, in support of the policy goal of a '30-minute city'.

2.5.2 Greater Sydney Region Plan: A Metropolis of Three Cities

Sydney Metro West is identified in the Greater Sydney Region Plan (Greater Sydney Commission 2018a) as being able to significantly enhance intercity links between the Central River City of Greater Parramatta and the Eastern Harbour City of the Sydney CBD. Sydney Metro West is also identified as a catalyst for realising the vision of the Greater Parramatta and the Olympic Peninsula region, which will be a place for new business, housing choice, education, research, entertainment and tourism.

Sydney Metro West would support key directions outlined in the Greater Sydney Region Plan by:

- Providing infrastructure to support the three cities, including the '30-minute city' concept where people will have access to jobs, schools, hospitals and services within 30 minutes
- Connecting the Eastern Economic Corridor with the Greater Parramatta to Olympic Peninsula Economic Corridor
- Facilitating greater housing supply.

The contribution of Sydney Metro West to achieving the directions and objectives of the Greater Sydney Region Plan is outlined in Table 2-3.

Table 2-3: Consistency of Sydney Metro West with the objectives of the Greater Sydney Region Plan

Direction	Corresponding objectives of the plan	Sydney Metro West contributions to achieving the plan's direction and objectives
A city supported by infrastructure	Objective 1: Infrastructure supports the three cities	Sydney Metro West would provide rail infrastructure connecting the Central River City with the Eastern Harbour City, as well as various key precincts located along this corridor.
	Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact	Sydney Metro West would provide infrastructure which has been designed to align with a number of future growth areas which include the Greater Parramatta to Sydney CBD corridor and The Bays.
	Objective 3: Infrastructure adapts to meet future needs	Sydney Metro West has been designed to meet the future needs of Sydney, providing for a substantial growth in capacity between the Eastern Harbour City and the Central River City. This connection would align with the future growth of key places along the corridor, including at The Bays and Sydney Olympic Park. Sydney Metro West would also use industry leading technology.
	Objective 4: Infrastructure use is optimised	Sydney Metro West would provide additional infrastructure to provide relief to the currently congested T1 Western Line, while providing new connections between communities along the corridor. This would enable both the existing suburban rail network to be optimised, as well as the growing Sydney Metro network.
Working together to grow a Greater Sydney	Objective 5: Benefits of growth realised by collaboration of governments, community and business	The development of Sydney Metro West has involved consultation and collaboration between Sydney Metro, relevant stakeholders and communities. Further discussion regarding the consultation for Sydney Metro West is provided at Chapter 5 (Stakeholder and community engagement).
A city for people	Objective 6: Services and infrastructure meet communities' changing needs	Sydney Metro West would deliver a new mass transit service for Greater Sydney, providing additional connectivity within and between the Central and Eastern Cities. Sydney Metro West would also provide improved connectivity for those along the T1 Western Line west of Westmead through the interchange at Westmead Station and reduced travel times.
	Objective 7: Communities are healthy, resilient and socially connected	Sydney Metro West would directly connect various existing and future communities of Greater Sydney. Meaningful engagement will continue with local communities to enable Sydney Metro West to build on the communities' strengths and networks. Public transport delivers multiple benefits to communities, principally through the provision of new community focal points around stations which further social cohesion. By delivering world class public transport along the corridor, Sydney Metro West would enable the delivery of health benefits to communities – encouraging people to use public and active transport (walking and cycling).
A city of great places	Objective 12: Great places that bring people together	Sydney Metro West has been designed to improve the accessibility and connectivity of existing places, whilst also providing for the creation of future great places around metro stations.
	Objective 13: Environmental heritage is identified, conserved and enhanced	Sydney Metro West has been designed to minimise and mitigate heritage impacts wherever possible. Detailed assessment of the heritage impacts of Sydney Metro West is provided at Chapter 12 (Non-Aboriginal heritage - Stage 1) and Chapter 13 (Aboriginal heritage - Stage 1).

Direction	Corresponding objectives of the plan	Sydney Metro West contributions to achieving the plan's direction and objectives
A well connected city	Objective 14: A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities	Sydney Metro West has been designed to ensure that future transport has been integrated with existing and future land use, and would facilitate the creation of walkable centres. The connectivity provided by Sydney Metro West would allow for an increase in the accessibility of various centres, directly contributing to the achievement of the 30-minute city vision.
	Objective 15: The Eastern, Greater Parramatta to Olympic Peninsula and Western Economic Corridors are better connected and more competitive	Sydney Metro West would provide a new, high capacity link between the Eastern Economic Corridor and Greater Parramatta to Olympic Peninsula Economic Corridor, allowing for the connectivity of various centres along this route. Sydney Metro West would also safeguard a future extension west of Westmead, which could connect to the Western Economic Corridor.
Jobs and skills for the city	Objective 18: Harbour CBD is stronger and more competitive	Sydney Metro West would directly improve the strength and competitiveness of the Harbour CBD by improving accessibility into and within the Eastern Harbour City. By providing a direct link between the Central River City, new growth areas and the Eastern Harbour City, Sydney Metro West would also expand the area of accessibility and influence of the Eastern Harbour CBD, enabling future growth.
	Objective 19: Greater Parramatta is stronger and better connected	Sydney Metro West would provide new connections to, from and within Greater Parramatta. Connections to the broader public transport network within Greater Parramatta would include an interchange with the T1 Western Line at Westmead and to the Parramatta Light Rail Stage 1 at Westmead and Parramatta. These connections, alongside the benefits of providing new metro stations with a direct connection to Greater Parramatta, would work to substantially improve connectivity of the area.

2.5.3 Central City District Plan

The Central City District Plan (Greater Sydney Commission, 2018b) is the 20-year plan for the implementation of the vision detailed in the Greater Sydney Region Plan. Sydney's Central River City includes Greater Parramatta as its metropolitan centre, acknowledging its function in providing world-class health, education and research institutions as well as finance, business services and administration.

Priorities for the Central River City include growing a stronger and more competitive Greater Parramatta, and a better connected and competitive Greater Parramatta and the Olympic Peninsula Economic Corridor. The plan also seeks to deliver 30-minute cities through integrated land use and transport planning.

Sydney Metro West is identified as being able to support these priorities through enhancing transport connections to and within Greater Parramatta and the Olympic Peninsula, providing the opportunity for new housing and office floor space, and improving access to jobs.

2.5.4 Eastern City District Plan

The Eastern City District Plan (Greater Sydney Commission, 2018c) is the 20-year plan to implement the vision established in the Greater Sydney Region Plan. The Eastern City District includes the Sydney CBD as its metropolitan centre, acknowledging its role as Australia's established global gateway and financial capital.

Priorities of the plan which are aligned to Sydney Metro West include planning for a city supported by infrastructure, growing a stronger internationally-competitive Sydney CBD, and delivering integrated land use and transport planning and a 30-minute city.

2.5.5 Greater Parramatta and the Olympic Peninsula Vision

Greater Parramatta and the Olympic Peninsula Vision (Greater Sydney Commission, 2016) details the strategic direction for Sydney's 'true centre'.

Sydney Metro West aligns with the directions to encourage investment in economic anchors of Parramatta-Westmead and Olympic Park, support 30-minute cities within these locations and beyond, and support high quality public spaces to enhance liveability.

The vision is further developed in the Greater Sydney Region Plan (refer to Section 2.5.2), in which Sydney Metro West is also described as a catalyst for realising the vision of the Greater Parramatta to Olympic Peninsula region. Sydney Metro West provides strong support for this vision through the delivery of stations in Westmead, Parramatta and Sydney Olympic Park.

2.5.6 Smart Cities

The Smart Cities Plan (Australian Government, 2016) sets out the Australian Government's vision for cities, and a plan for maximising their potential. It includes three pillars: smart investment, smart policy and smart technology.

Central to a smart investment approach is prioritising projects that meet broader economic and city objectives such as accessibility, jobs, affordable housing and healthy environments. Sydney Metro West is consistent with this approach with its support for 30-minute cities and improved connections to key destinations including health and education precincts, diverse employment centres and residential precincts.

As part of the Sydney Metro network, Sydney Metro West also embraces new transport technology with new-generation trains that would deliver fast, safe and reliable journeys for customers with high performance standards and good customer amenities.

2.6 Consistency with NSW strategic transport infrastructure policy

2.6.1 Future Transport 2056 strategy

The Future Transport 2056 strategy (Transport for NSW, 2018) is the NSW Government's 40-year strategy to support growth and the NSW economy, focusing on customer needs and the technological, economic and social changes ahead. Future Transport's investment priorities for Greater Sydney will be guided by the vision of a metropolis of three cities.

The three cities vision will require a sustained and staged investment program to develop a connected mass transit network across the city. These investments will provide improved public transport, congestion management and urban renewal outcomes, enabling capacity on existing road and rail corridors and supporting renewal and walkability by drawing traffic away from centres.

The strategy sets a vision for the future city-shaping transport network (shown on Figure 2-12) including major transport corridors which provide high speed and volume links between centres and shape locational decisions of residents and businesses.

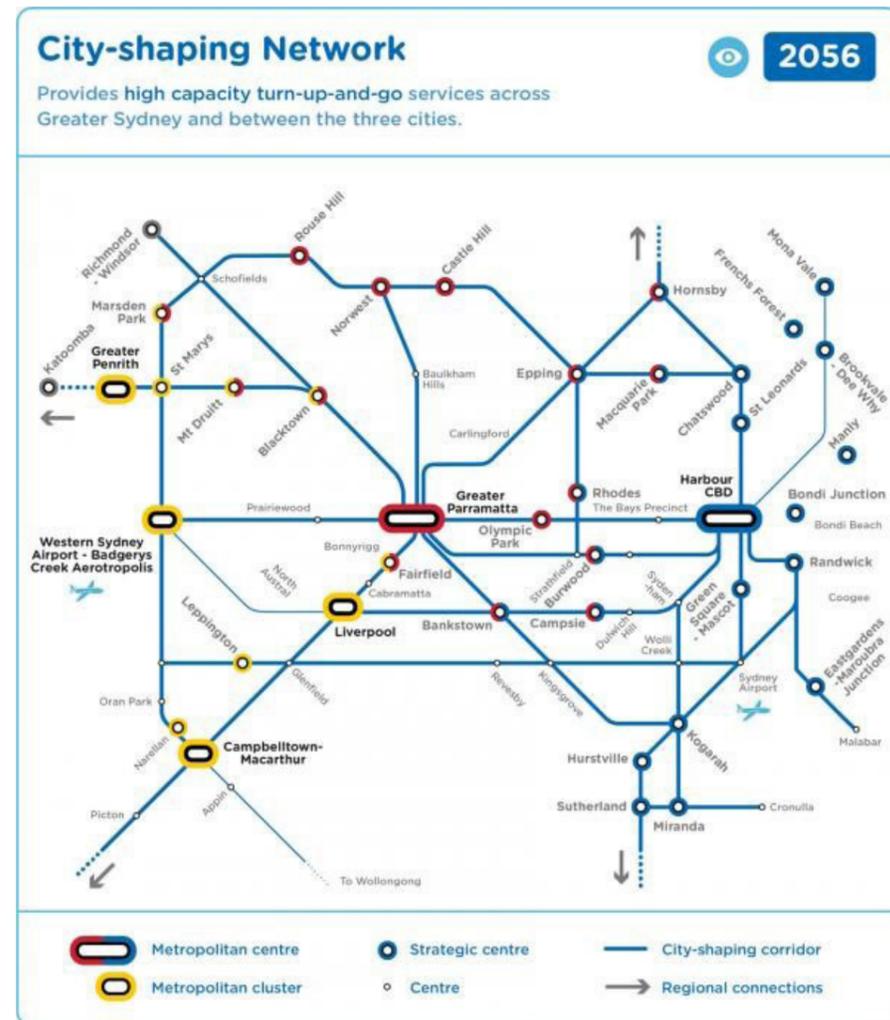


Figure 2-12: City-shaping Network 2056 – Future Transport 2056 strategy (Transport for NSW, 2018)

The corridor between Greater Parramatta and the Sydney CBD, connected via Sydney Olympic Park and The Bays is identified as a city-shaping corridor. Sydney Metro West would help fulfil the vision of this corridor.

Sydney Metro West would also accommodate for future city-shaping corridors identified in the strategy and would safeguard for possible future extensions.

The Future Transport 2056 strategy identifies Sydney Metro West as a committed project connecting the Central River City to the Eastern Harbour City.

2.6.2 Sydney City Centre Access Strategy

The Sydney City Centre Access Strategy (Transport for NSW, 2013) is the NSW Government's plan to deliver a fully integrated transport network in Sydney's city centre that puts the customer first and meets the city's growing transport task. The strategy outlines how people will enter, exit and move in and around the Sydney CBD over the next 20 years and demonstrates how light rail, buses, trains, ferries, cars, point to point transport services, pedestrians and cyclists will interact in the heart of Sydney. The strategy also provides a clear direction for how all the different transport modes will work together in the city centre to reduce congestion; provide for future growth; and improve the customer experience.

Several key transport challenges for the Sydney CBD are discussed in the Strategy, including public transport capacity (in particular the T1 Western Line) and meeting future demand for access to the city centre. Sydney Metro West is a key initiative which would be able to address this demand for services to the Sydney CBD.

The Sydney City Centre Access 2018 update provides an overview of the key transport initiatives that have been implemented since the 2013 strategy was released, and what still needs to be done to support the changing city.

2.7 Objectives for Sydney Metro West

Sydney Metro West's objectives are separated into network and corridor objectives. The network objectives represent the outcomes to be achieved by Sydney Metro West in its full configuration, including potential extensions. The corridor objectives include the specific plans and needs of the geographic area between Greater Parramatta and Sydney CBD.

2.7.1 Sydney Metro West network objectives

The Sydney Metro West network objectives are:

- Ensure transport services are meeting the needs of customers
- Deliver outcomes that align with and support key strategic land use and transport frameworks including the Smart Cities Plan, Greater Sydney Region Plan, Future Transport Strategy and the relevant District Plans
- Boost Sydney's international competitiveness, productivity and employment growth by supporting new and existing strategic centres
- Support future housing needs by increasing housing supply, choice and affordability
- Improve liveability and provide a catalyst for positive change by enabling urban renewal opportunities, enhancing housing supply and supporting productivity of centres
- Improve access to and resilience of the transport network through integrated land use and transport planning, including integration of Sydney Metro West with other transport modes
- Ensure value for money and a sustainable and deliverable solution.

2.7.2 Sydney Metro West Greater Parramatta to Sydney CBD corridor objectives

The Sydney Metro West Greater Parramatta to Sydney CBD corridor objectives are:

- Contribute towards the vision for a three cities metropolis established by the Greater Sydney Commission including the '30-minute city' concept
- Support additional housing supply and employment growth opportunities and support urban renewal initiatives within the Greater Parramatta to Sydney CBD corridor including key government precincts such as the Greater Parramatta and Olympic Peninsula and The Bays
- Achieve customer outcomes including relieving congestion on the busy T1 Western Line and T2 Inner West and Leppington Line, increased rail patronage and mode shift, reduced travel times between key destinations, providing new access to mass transit rail and relieving bus and road congestion in the western corridor.

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