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Appendix M

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WestConnex M4 Widening Project

WESTCONNEX DELIVERY AUTHORITY

Socio-economic assessment

FINAL

16 July 2014



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WestConnex M4 Widening Project

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Contents

1.	Introduction.....	1
1.1	Background.....	1
1.2	Purpose of this document	2
2.	Project overview.....	3
2.1	Widening works.....	3
2.2	Ancillary facilities.....	4
2.3	Study area	6
3.	Methodology.....	8
3.1	Scoping of issues.....	8
3.2	Socio-economic baseline.....	8
3.3	Socio-economic impact assessment	9
3.3.1	Limitations.....	9
3.4	Mitigation measures	9
3.5	Community and stakeholder consultation	10
4.	Socio-economic policy context	11
4.1	New South Wales.....	11
4.2	Local Government strategies	13
5.	Existing socio-economic environment	16
5.1	Regional context	16
5.1.1	Holroyd local government area	16
5.1.2	Parramatta local government area	16
5.1.3	Auburn local government area	17
5.1.4	Strathfield local government area.....	18
5.2	Population and housing	18
5.2.1	Population size, growth and mobility	18
5.2.2	Age profile.....	20
5.2.3	Cultural diversity.....	21
5.2.4	Households and families.....	22
5.2.5	Housing	23
5.2.6	Vulnerability and need for assistance	26
5.2.7	Vehicle ownership	29
5.3	Economic profile.....	29
5.3.1	Income and employment	29
5.3.2	Business and industry	31
5.4	Community values.....	34
5.5	Social infrastructure.....	36
5.5.1	Social infrastructure near the project.....	39
5.6	Transport and access.....	45
5.6.1	Transport infrastructure	45
5.6.2	Journey to work.....	48

5.7	Summary of socio-economic environment.....	48
6.	Impact assessment	50
6.1	Property impacts	50
6.1.1	Directly affected properties	50
6.1.2	Impact of property acquisition	52
6.1.3	Impact on property values.....	53
6.2	Population and demography.....	53
6.3	Employment, Business and industry.....	54
6.3.1	Directly affected businesses	54
6.3.2	Potential construction impacts	55
6.3.3	Potential impacts during operation	57
6.4	Social infrastructure.....	57
6.4.1	Potential construction impacts	58
6.4.2	Potential impacts during operation	59
6.5	Community values.....	59
6.5.1	Potential construction impacts	59
6.5.2	Potential impacts during operation	60
6.6	Local amenity.....	60
6.6.1	Potential construction impacts	60
6.6.2	Potential impacts during operation	61
6.7	Access and connectivity	62
6.7.1	Potential construction impacts	62
6.7.2	Potential impacts during operation	64
6.8	Cumulative impacts	65
7.	Mitigation.....	66
7.1	Overview.....	66
7.1.1	Broad objectives.....	66
7.1.2	Community engagement.....	66
7.2	Pre-construction and design	67
7.3	Construction.....	67
7.3.1	Business and industry	67
7.3.2	Community values.....	68
7.3.3	Local amenity.....	68
7.3.4	Access and connectivity	68
7.4	Operation.....	69
7.4.1	Amenity.....	69
7.4.2	Access and connectivity	69
8.	References	70

List of tables

Table 1-1 Director General's Environmental Assessment Requirements	2
Table 2-1 Potential compounds and ancillary sites.....	4
Table 2-2 Compound site uses and proposed activities.....	5
Table 2-3 Study area.....	6
Table 5-1 Population size, 2007-2012.....	19
Table 5-2 Population projections, 2011-2031.....	19
Table 5-3 Population mobility, 2011	20
Table 5-4 Age profile, 2011.....	21
Table 5-5 Cultural diversity, 2011.....	22
Table 5-6 Households, 2011	23
Table 5-7 Dwelling characteristics, 2011	24
Table 5-8 Tenure type and housing cost, 2011	25
Table 5-9 Vehicle ownership, 2011	29
Table 5-10 Household income, 2011.....	30
Table 5-11 Labour force participation and unemployment rates, 2011	31
Table 5-12 Business and employment counts, 2012.....	32
Table 5-13 Social infrastructure near the project works.....	40
Table 6-1 Summary of property acquisition.....	51
Table 6-2 Summary of properties subject to temporary leases for construction of the project	51

List of figures

Figure 1-1 WestConnex Scheme	1
Figure 2-1 Project location and key features.....	4
Figure 2-2 Socio-economic assessment study area.....	7
Figure 5-1 Index of socio-economic advantage/ disadvantage	27
Figure 5-2 Index of economic resources.....	28
Figure 5-3 Social infrastructure near the project.....	41

Important note about this report

The sole purpose of this report and the associated services performed by Jacobs is to assess the socio-economic impacts of the WestConnex M4 Widening project in accordance with the scope of services set out in the contract between Jacobs and the Client. That scope of services, as described in this report, was developed with the Client.

In preparing this report, Jacobs has relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, Jacobs has not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

Jacobs derived the data in this report from information sourced from the Client (if any) and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination of the project and subsequent data analysis, and re-evaluation of the data, findings, observations and conclusions expressed in this report. Jacobs has prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

This report should be read in full and no excerpts are to be taken as representative of the findings. No responsibility is accepted by Jacobs for use of any part of this report in any other context.

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1. Introduction

The WestConnex Delivery Authority (WDA) is proposing to widen the M4 Motorway between the Pitt Street overpass (just west of the M4 Motorway/Church Street interchange) at Parramatta and Homebush Bay Drive, Homebush (the M4 Widening project).

This report has been prepared by Jacobs on behalf of WDA. It provides an assessment of the socio-economic impacts associated with the construction and operation of the M4 Widening project.

1.1 Background

The WestConnex scheme is a proposal to provide 33 kilometres of tolled motorways linking Sydney's west, south-west, Sydney central business district (CBD), Sydney Airport and the Port Botany precinct.

The scheme aims to facilitate future growth and economic development within the greater Sydney region by supporting the region's transport needs, strengthening access and connectivity for industry to key commercial and employment centres and improving growth opportunities for local businesses. The scheme also seeks to stimulate urban renewal and the revitalisation of areas along existing transport corridors such as Parramatta Road and other areas of the city that currently experience a reduced amenity due to high traffic volumes and congestion. This would provide opportunities to improve the liveability and desirability of these suburbs as commercial centres and places to live.

The M4 Widening project is the first stage of the WestConnex scheme and involves the upgrade of approximately 7.5 kilometres of the existing M4 Motorway between the Pitt Street overpass at Parramatta and Homebush Bay Drive, Homebush. An overview of the WestConnex Scheme is shown in **Figure 1-1**.



Figure 1-1 WestConnex Scheme

1.2 Purpose of this document

This Socio-Economic Assessment forms part of the environmental impact statement (EIS) for the M4 Widening project. The EIS has been prepared under Part 5.1 of the (NSW) *Environmental Planning and Assessment Act 1979* (EP&A Act).

This assessment has been prepared to address the Director General's Environmental Assessment Requirements (DGRs) relating to social and economic issues. It provides an assessment of the potential socio-economic benefits and impacts of the proposed M4 Widening project including:

- A description of the existing socio-economic baseline conditions of potentially affected groups and communities near the project.
- An assessment of potential changes to existing socio-economic conditions due to the construction and operation of the project.
- Recommended mitigation and monitoring measures to enhance the project's benefits and avoid, manage or mitigate its potential socio-economic impacts.

Table 1-1 outlines the DGRs relevant to this assessment along with a reference to where these are addressed in the socio-economic assessment.

Table 1-1 Director General's Environmental Assessment Requirements

Director General's Environmental Assessment Requirements	Reference
Social and economic – including, but not limited to: <ul style="list-style-type: none"> • Social and economic impacts on the local community and community facilities directly impacted by the project. 	Section 6 provides an assessment of impacts on the socio-economic environment of the study area from the construction and operation of the M4 Widening project. Impacts for social infrastructure are discussed in Section 6.4.
A draft Community Consultation Framework identifying relevant stakeholders, procedures for distributing information and receiving/responding to feedback and procedures for resolving community complaints. Key issues that should be addressed in the draft Strategy should include: <ul style="list-style-type: none"> • Traffic management (including property access, pedestrian access). • Landscaping/ urban design matters. • Construction activities, including out of hours work. • Noise and vibration mitigation and management. 	Section 7 outlines measures for managing, avoiding or mitigating potential socio-economic impacts of the project's construction and operation. This includes measures relating to community engagement about construction activities and potential impacts. A draft Community Consultation Framework is also provided in the EIS (Appendix M).

2. Project overview

This section provides an overview of the key features of the M4 Widening project. This includes ancillary works for the construction of the project.

2.1 Widening works

The WestConnex Delivery Authority (WDA) is proposing to widen and upgrade the M4 Motorway generally between Pitt Street, Parramatta and Homebush Bay Drive, Homebush (the M4 Widening project).

The M4 Widening project would include the following key features:

- Construction of a new two lane westbound viaduct south of the existing viaduct structure between Church Street, Parramatta and Wentworth Street, Granville.
- Reconfiguration of the traffic lanes on the existing viaduct structure to four lanes eastbound and two lanes westbound.
- Construction of a new bridge/viaduct over Duck River at Auburn.
- Widening of the existing motorway to the south of the westbound carriageway between Wentworth Street, Granville and Duck River, Auburn.
- Widening of the at-surface carriageway of the motorway predominantly within the existing motorway corridor (utilising both the existing median and verge areas), between Junction Street, Auburn and Homebush Bay Drive, Homebush to provide four traffic lanes westbound and four traffic lanes eastbound.
- Construction of a new westbound G-loop on-ramp to the M4 Motorway at Homebush Bay Drive, Homebush.
- Construction of a new eastbound on-ramp to the M4 Motorway from Hill Road, Lidcombe.
- Provision of Intelligent Transport Systems (ITS) infrastructure for motorway operations.
- Provision of road infrastructure and services to support the future implementation of Managed Motorway operation.
- Widening and/or lengthening of existing ramps at Church Street, James Ruse Drive, Silverwater Road, Hill Road and Homebush Bay Drive.
- Provision of tolling infrastructure such as gantries and control systems.
- Provision of new and modified noise barriers.
- Provision of new asphalt wearing surface to the existing M4 Motorway.

The project is located approximately 13 kilometres to the west of the Sydney central business district (CBD) and generally follows the alignment of the existing M4 Motorway. **Figure 2-1** shows the project location and key features. The project extends from the Pitt Street, Parramatta in the west to east of the Homebush Bay Drive interchange at Homebush in the east.

The project traverses the suburbs of Merrylands, Parramatta, Holroyd, Granville, Silverwater, Auburn, Lidcombe, Sydney Olympic Park, Homebush and Homebush West. The project spans four local government areas (LGAs) being Holroyd, Parramatta, Auburn and Strathfield.

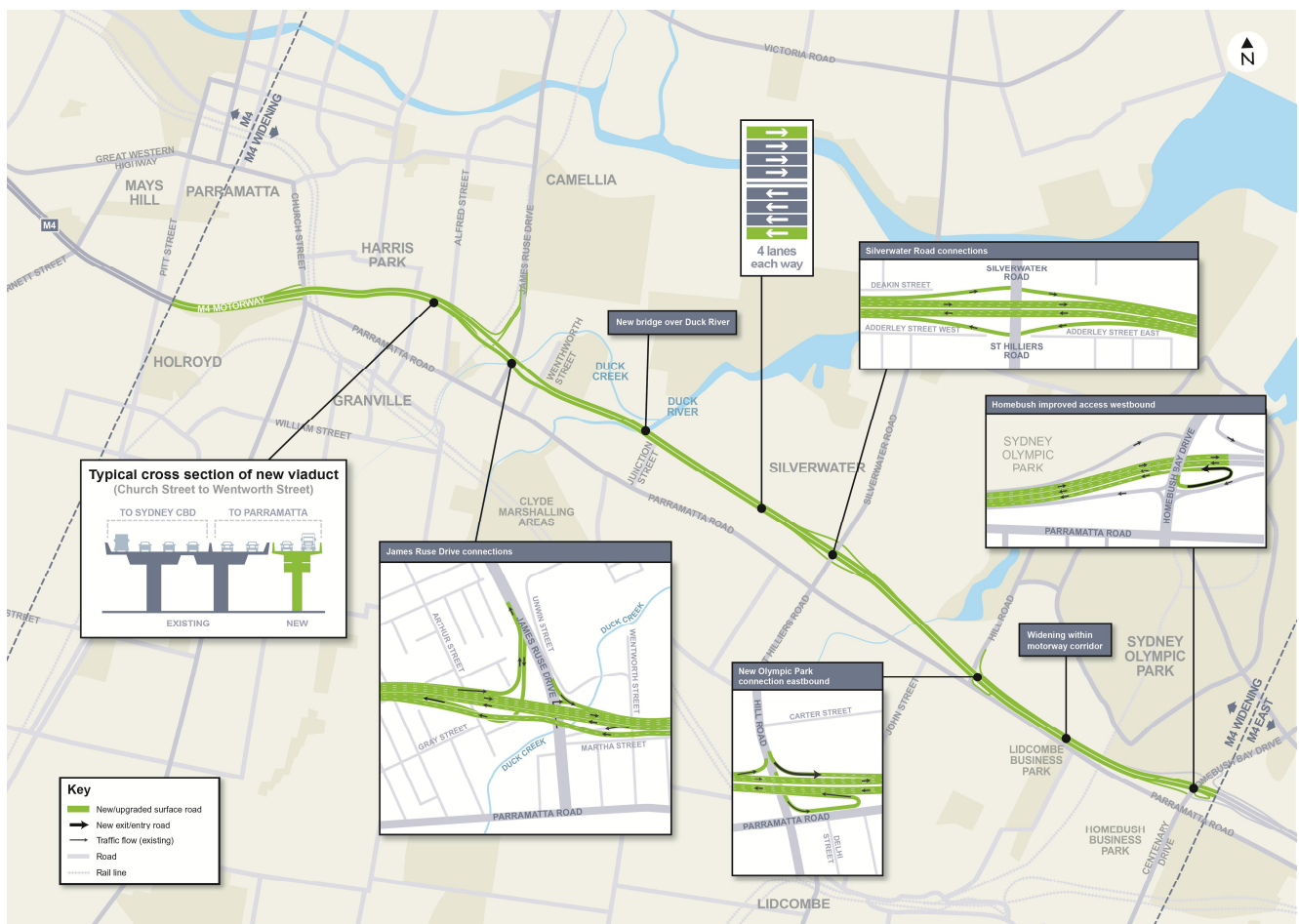


Figure 2-1 Project location and key features

2.2 Ancillary facilities

The project would include ancillary works during construction including, but not limited to, construction compounds, sedimentation basins, batch plants, and stockpile sites.

Table 2-1 shows the potential locations of the construction compounds and ancillary sites, along with possible details of their size, proposed uses and access points. **Table 2-2** shows the main activities associated with each of the proposed compound site uses.

A number of other smaller construction compounds would also be required within the existing road corridor of the M4 Motorway. The final locations of other ancillary sites would be determined during detailed design based on specific environmental criteria.

Table 2-1 Potential compounds and ancillary sites

Compound	Proposed use	Approximate area (m2)	Proposed access/ egress
1 Church Street Compound	Construction compound	6,800	Access for construction plant and materials from Church Street (southbound), egress for trucks onto Junction Street Access and egress from Victoria Street /Duke Street, Prince Street /Harris Street and/or Good Street
2 A'Beckett Street Compound	Construction compound	15,500	Access and egress from A'Beckett Street via Good Street or Alfred Street

Compound	Proposed use	Approximate area (m2)	Proposed access/ egress
3 Alfred Street Compound	Construction compound	13,700	Access from Alfred Street, egress onto Alfred Street or Arthur Street
4 James Ruse Drive Centre Compound	Construction and storage facility	10,000	Access and egress from James Ruse Drive (northbound)
5 James Ruse Drive East Access	Construction and storage facility	450	Access and egress from James Ruse Drive eastbound on-ramp
6a Martha Street West Compound and 6b Martha Street Centre Compound	Construction and storage facility	15,600 (west) 4,500 (centre)	Access from Wentworth Street, egress onto Martha Street
7 Deniehy Street Compound	Construction and storage facility	19,800	Access and egress from Martha Street
8 Junction Street Compound	Construction site	5,200	Access and egress from Junction Street
9 Adderley Street West Compound	Construction site	1,600	Access and egress from Adderley Street West
10 Adderley Street Main Compound	Construction compound	11,460	Access and egress from Adderley Street West
11 Adderley Street East Compound 1 and 2	Construction compound	2,700 1,200	Access from Adderley Street East, egress onto Day Street South
12a Hill Road G-loop compound and 12b Hill Rd North Compound	Construction compound	3,570 10,200	Access and egress from Hill Road
13 Homebush Bay Drive East	Main project site office	21,400	Access and egress from M4 Motorway westbound off-ramp to Homebush Bay Drive and Flemington Road

Table 2-2 Compound site uses and proposed activities

Proposed use	Proposed activities
Main project site office	<ul style="list-style-type: none"> • Staff amenities and parking • Large scale demountable offices and facilities including ablutions • Light vehicles • Minor equipment storage
Construction and storage facility	<ul style="list-style-type: none"> • Staff amenities, sheds and parking • Large plant and equipment • Material storage • Stockpiles
Construction compound:	<ul style="list-style-type: none"> • Staff amenities and sheds • Parking • Minor plant & equipment • Limited storage
Construction site	<ul style="list-style-type: none"> • Staff amenities & ablutions • Small and large plant and equipment

The project would not include surveys, test drilling, test excavations, geotechnical investigations or other tests, surveys, sampling or investigation for the purposes of the design or assessment of the project. For the purposes of this report, the scope of the M4 Widening project would not include ongoing maintenance works.

2.3 Study area

The study area for the socio-economic assessment is shown in **Figure 2-2**. It has been based on those communities that have potential to experience changes to socio-economic conditions due to such things as the location of project works or construction activities, or changes to local movement patterns for residents, workers and visitors.

In particular, it includes the Australian Bureau of Statistics (ABS) Statistical Area Level 2 (SA2) areas of:

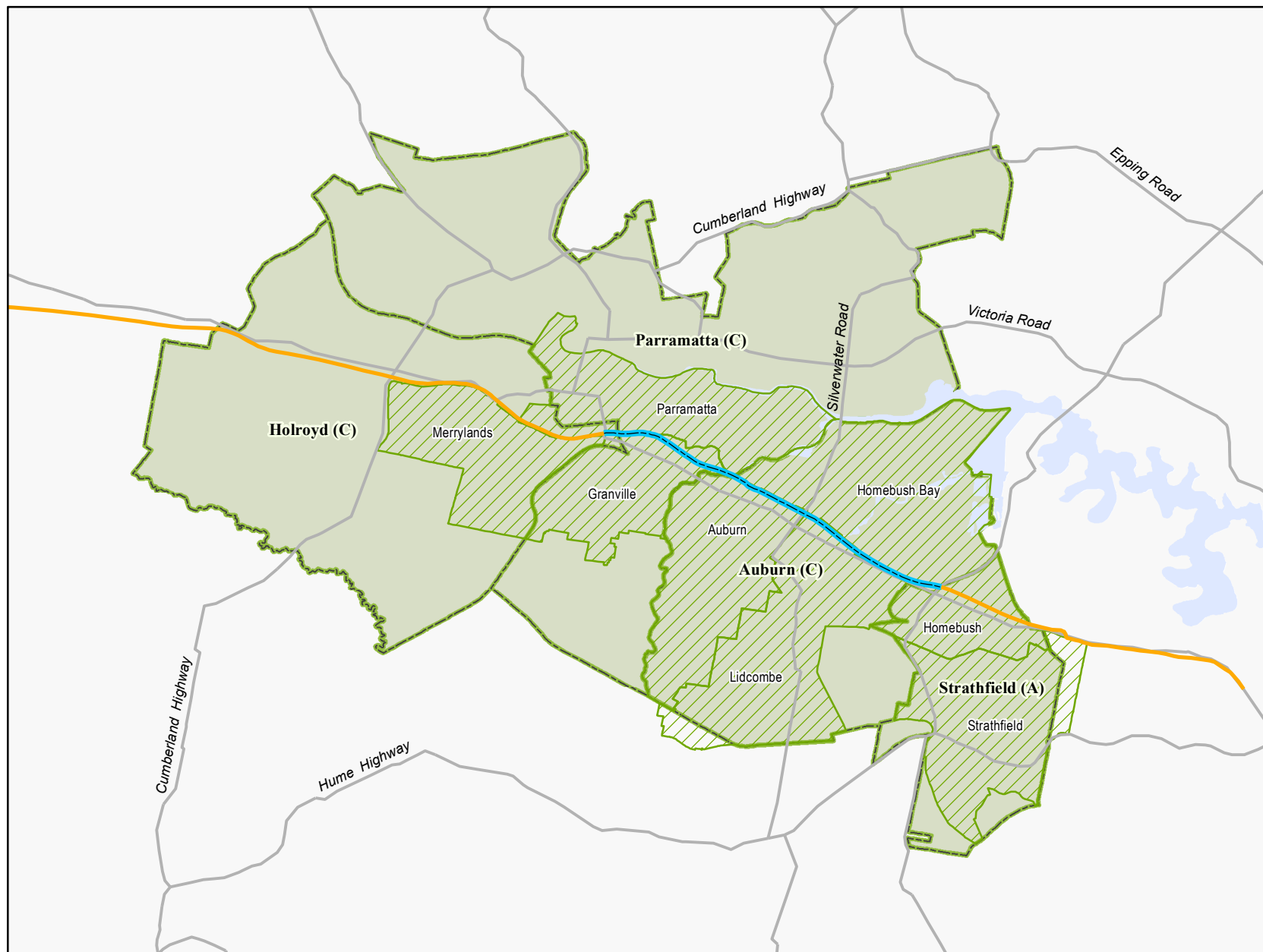
- Merrylands-Holroyd at the western end of the project.
- Parramatta-Rosehill, Granville-Clyde, Auburn, Homebush Bay-Silverwater, and Lidcombe-Regents Park, near that section of the project involving widening of the existing M4 Motorway.
- Homebush and Strathfield, near the transition to the existing M4 Motorway and at the eastern end of the project.

Construction and operation of the project is also likely to change movement patterns for residents, workers, businesses and visitors in the broader region. As such, this assessment also considers at a broader level, regional impacts on communities and businesses in the LGAs of Holroyd, Parramatta, Auburn and Strathfield.

Table 2-3 provides a summary of the SA2 areas within the study area, along with the corresponding LGA.

Table 2-3 Study area

Statistical Area Level 2 area	Referred to in the socio-economic assessment as	Local government area
Merrylands – Holroyd	Merrylands SA2	Holroyd
Parramatta – Rosehill	Parramatta SA2	Parramatta
Granville – Clyde	Granville SA2	Parramatta
Auburn	Auburn SA2	Auburn
Homebush Bay – Silverwater	Homebush Bay SA2	Auburn
Lidcombe – Regents Park	Lidcombe SA2	Auburn
Homebush	Homebush SA2	Strathfield
Strathfield	Strathfield SA2	Strathfield



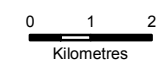
LEGEND

- M4 Widening project
- Western Motorway
- Major Road
- Study Area LGAs
- SA2 Block
- Watercourse / Waterbody

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3. Methodology

Socio-economic assessment involves analysing, monitoring and managing the social and economic consequences of a development. This includes changes to, or impacts on, communities, business and industry that are likely to occur from the construction or operation of a proposed development.

Key steps in socio-economic assessment include scoping of issues, describing the existing socio-economic environment, identifying and assessing potential socio-economic impacts and identifying measures to manage or mitigate the project's potential impacts and maximise potential benefits.

Further detail on each of these steps is provided in the following sections.

3.1 Scoping of issues

This step involved scoping the range of potential social and economic impacts for local and regional communities, business and industry. The range of potential impacts to be considered was guided by:

- The DGRs for the project.
- The (NSW) Roads and Maritime Services Environmental Assessment Practice Note – Socio-economic assessment (EIA-N05).
- Socio-economic assessments previously undertaken for the project, including for the *WestConnex M4 Widening State Significant Infrastructure Application Report* ((NSW) Roads and Maritime Services 2013), and the *WestConnex Strategic Environmental Review* (Sydney Motorways Project Office 2013a).
- Socio-economic assessments undertaken for other major road and transport infrastructure projects in NSW and elsewhere.
- Consultation undertaken for the project, including as part of the wider WestConnex scheme and on the M4 Widening project.

3.2 Socio-economic baseline

The description of the existing socio-economic environment provides a baseline of the key social and economic characteristics and conditions of the study area from which potential impacts of the project can be assessed. The description of the existing environment includes both qualitative and quantitative analysis, including:

- Review of existing State and local government strategies relevant to the socio-economic environment of the study area.
- Analysis of population, demographic and housing indicators, based on the review of existing available data for the study area, including from the ABS 2011 Census of Population and Housing (ABS 2011 Census) (ABS 2011) and relevant Commonwealth, State, and local government agencies.
- Analysis of economic information, including data relating to industry, employment and income and information on business and industry near the project.
- Review of existing social infrastructure in the study area, including community services and facilities such as schools, child care, health and medical services, aged care, emergency services and support services.
- Identification of existing community values, relating to factors such as local character and amenity, community health and safety, local access and connectivity, local character and heritage, and the natural environment. The identification of community values was informed by the review of existing local and state government social policies, outcomes of community consultation, data analysis and observations of conditions in the study area.
- Analysis of existing transport and access facilities, including the road networks, public transport services and facilities, and walking and cycling facilities.

The long-term nature of the M4 Widening project's effects also requires consideration of both existing and future populations and long-term population projects from the (NSW) Department of Planning and Environment were considered as representative of future population growth.

3.3 Socio-economic impact assessment

This step involved identifying and evaluating changes to existing socio-economic conditions within the study area due to the project's design, construction and operation. This included the assessment of direct and indirect benefits and impacts as well as consideration of cumulative impacts due to the project's interaction with impacts of other projects proposed, planned or under construction in the study area.

The impact assessment included consideration of:

- Property impacts, including direct and indirect impacts associated with land acquisition for the project.
- Changes to local and regional population and demography.
- Impacts on community values, such as those relating to local character and amenity, community health and safety, local access and connectivity, local character and heritage, and the natural environment.
- Impacts on local amenity, associated with changes in noise, air quality and the visual environment.
- Potential impacts on social infrastructure, including both direct and indirect impacts on local and regional level community services and facilities.
- Impacts on local and regional businesses and industry.
- Changes to local and regional access and connectivity, including for motorists, public transport customers, pedestrians and cyclists.

3.3.1 Limitations

The following limitations were identified for the assessment report:

- No direct community consultation was undertaken for the purposes of this report however information was obtained from stakeholder consultation and through community information sessions undertaken for the WDA concept design during preparation of the environmental impact statement (EIS).
- Construction of the M4 Widening project is expected to take about 22 months, with an indicative commencement of construction in early 2015, subject to approvals. The final program, and method of construction, would be subject to further development during contract procurement and the detailed design stage.

3.4 Mitigation measures

Measures were identified to enhance the project's benefits and avoid, manage or mitigate impacts for the socio-economic environment of the project's construction and operation. This considered measures used for other transport projects and the suitability of these measures for the M4 Widening project.

The identified mitigation and management measures include:

- Strategies to minimise adverse impacts on business and industry from the project's construction and operation, and opportunities to maximise potential beneficial impacts of the project.
- Measures to avoid, minimise or manage impacts on amenity, health and well-being, and access and connectivity for communities and areas closest to the project works.
- Measures to avoid or minimise impacts on local and regional infrastructure.

3.5 Community and stakeholder consultation

Community and stakeholder consultation – including with affected property owners, local communities, business and industry organisations, and State and local government agencies – has formed an integral part of the project development, including preparation of the environmental assessment.

The consultation chapter of the EIS provides an overview of community and stakeholder consultation undertaken for the project, along with the key issues raised. The socio-economic assessment was informed by the outcomes of this consultation, including the identification of socio-economic features and values important to communities in the study area, and potential benefits and impacts of the project.

In addition, targeted consultation was undertaken for the socio-economic assessment with key stakeholders in the study area, including local communities, business representatives, local government officers and community service providers. The purpose of this consultation was to identify:

- Socio-economic features or values to be considered by the socio-economic assessment.
- Specific issues for key stakeholders and groups near to the project works.
- Strategies to manage or mitigate potential impacts.

Consultation for the socio-economic assessment was undertaken through one-on-one discussions with staff of community facilities and residents near the M4 Widening project, in conjunction with community information sessions, as well as one-on-one meetings with other stakeholders.

4. Socio-economic policy context

This section provides an overview of the broader social and economic policies and strategies relevant to the project and the study area.

4.1 New South Wales

NSW Plan 2021

The *NSW 2021: A plan to make NSW number one* ((NSW) Department of Premier and Cabinet 2011) (NSW 2021) was released by the NSW Government in September 2011. The plan provides the NSW Government's direction for the next 10 years to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen local environments and communities.

NSW 2021 identifies 32 goals to meet the five strategies identified in the plan. Goals relevant to the socio-economic environment and the project include:

- Improve the performance of the NSW economy.
- Increase the competitiveness of doing business in NSW.
- Reduce travel times.
- Improve road safety.
- Invest in critical infrastructure.
- Build liveable centres.

The project would support long-term economic growth and development and enhanced productivity and competitiveness of business and industry near the M4 Motorway, by providing improved motorway access and connections linking Western Sydney with places of business across the city.

The project would also supports goals relating to travel time and safety and liveability, by relieving road congestion, improving speed, reliability and safety of travel in the M4 corridor, and creating opportunities for urban renewal, improved liveability, and public and active transport improvements along and around Parramatta Road.

Western Sydney and Blue Mountains Regional Action Plan

NSW 2021 is complemented by 19 Regional Action Plans, which identify immediate actions for the NSW Government to respond to priorities raised by communities and improve outcomes for regions across NSW. The two year plans complement the longer-term regional and State strategies.

The study area is covered by the *Regional Action Plan for Western Sydney and the Blue Mountains* ((NSW) Department of Premier and Cabinet 2012). The Action Plan focuses on maintaining the region's position as the industrial heart of Sydney's growing economy, while offering better transport and health services for communities and protecting the region's unique natural environment.

Priority actions identified in the Action Plan relevant to the project include:

- Delivering road and bridge upgrades to improve traffic flow, including enhancing motorway capacity and extending the M4 to Sydney Airport.
- Improving road safety, including on-going delivery of the Pinch Point Program to improve traffic flow in Metropolitan Sydney.
- Improving the movement of freight.

Draft Metropolitan Strategy for Sydney to 2031

The *Draft Metropolitan Strategy for Sydney to 2031* ((NSW) Planning and Infrastructure 2013) (Draft Metropolitan Strategy) sets a framework for Sydney's growth and prosperity to 2031 and beyond. It sets out the State Government's vision for Sydney by providing a framework for housing development and job growth over the next 20 years.

The Draft Metropolitan Strategy focuses on the five outcome areas of balanced growth, a liveable city, productivity and prosperity, healthy and resilient environment, and accessibility and connectivity.

The strategy identifies a number of sub-regions, which comprise groups of councils that share similar challenges in delivering the vision for Sydney. The study area is generally located within the West Central and North West sub-region. Priorities identified for the sub-region relevant to the socio-economic context of the project include:

- Planning for the renewal and growth of Parramatta as the premier regional city and second CBD, including improved transport connections to its wider catchment, and increased capacity for at least 21,000 additional jobs to 2031.
- Westmead Health Specialist Precinct, including providing capacity for at least 7,000 additional jobs to 2031.
- Strengthening the role of Sydney Olympic Park as a Specialised Precinct and major location for employment, high density housing, sports and entertainment, including investigating improved connectivity to Silverwater, Parramatta and Global Sydney through the redevelopment of the Parramatta Road Corridor, and providing capacity for at least 14,000 more jobs to 2031.
- Regeneration of the Parramatta Road Corridor, including delivery of Urban Activation Precincts at Carter Street and Wentworth Point, and planning for transformational change through urban renewal of local centres.
- Diversify housing opportunities by intensifying housing development around Parramatta CBD and adjacent suburbs, as well as identified centres and precincts along key public transport routes.
- Boost the contribution to Sydney's manufacturing, construction and wholesale industries in Holroyd and, increasingly, in the Western Sydney Employment Area.

The Draft Metropolitan Strategy identifies the Parramatta Road corridor as one of nine 'city shapers' that will shape future growth across greater Sydney. The Parramatta Road corridor is proposed to be a focus for new housing and employment, feature improved shops, services and public spaces, and link destinations such as Sydney Olympic Park and Burwood. The WestConnex project will support the regeneration of Parramatta Road by providing new transport connections and creating new links between the M4 Motorway and Port Botany and Sydney Airport.

The project supports the priorities of the Metropolitan Strategy by providing improved access and connectivity for residents, businesses, industry and visitors within and to the West Central and North West sub-region and supporting future growth and economic development.

NSW Long Term Transport Master Plan

The *NSW Long Term Transport Master Plan* (Transport for NSW 2012) (LTTMP) sets the framework for the NSW Government to deliver an integrated, modern transport system that puts the customer first. The LTTMP, released in December 2012, is a 20 year plan which responds to key transport challenges and identifies the priorities needed to create a transport system that meets a range of needs.

A key action for Sydney's road future in the LTTMP is the delivery of WestConnex, including the M4 Widening project, to:

- Support Sydney's long term economic growth through improved motorway access and connections linking Sydney's international gateways and Western Sydney and places of business across the city.
- Relieve road congestion so as to improve the speed, reliability and safety of travel in the M4 corridor, including parallel arterial roads.
- Create opportunities for urban renewal, improved liveability, public and active transport improvements along and around Parramatta Road.
- Enhance the productivity of commercial and freight generating land uses strategically located near transport infrastructure.

WestConnex Business Case

An economic appraisal was undertaken for WestConnex as reported in the *WestConnex Business Case Executive Summary* (Sydney Motorways Project Office 2013). The economic appraisal identified wider economic impacts reflecting the benefits of WestConnex across the Sydney road network.

The economic analysis found that the WestConnex scheme, including the M4 Widening project, would create benefits, realised by the general community that would outweigh the initial upfront construction cost and ongoing operational costs. This is discussed further in section 3.4 of the environmental impact statement.

4.2 Local Government strategies

City of Holroyd

The *Living Holroyd Community Strategic Plan* (Holroyd City 2013) (Community Strategic Plan) outlines the priorities, strategies and long-term vision for the City over the next 20 years. The Community Strategic Plan identifies five key directions or 'Living Holroyd Values' for a City that is active; growing; balanced; connected; and dynamic.

The Living Holroyd Value – 'Connected Holroyd' – is directly relevant to the project. The vision for this value is 'a well-connected Holroyd [to] enable its community to enjoy the city across efficient transport options and local connections which link to state-wide infrastructure'. Key priorities of the 'Connected Holroyd' value relevant to the project include:

- Improve the city's road network.
- Communicate changes to transport infrastructure in an effective, timely manner.
- Enhance community safety across transport hubs.
- Build partnerships to deliver city-wide standards of accessibility.
- Effectively manage traffic flow through the city.
- Encourage community involvement in local traffic and transport planning.

Other values also relevant to the implementation of the project include:

- 'Active Holroyd', which includes priorities aimed at ensuring people from all cultures, ages and backgrounds can access city information and services; ensuring infrastructure is well planned to support future development; and encouraging the growth and sustainability of existing and new business.
- 'Dynamic Holroyd', which includes priorities aimed at ensuring Council engages effectively across government agencies, departments and representatives and that community bodies and associations are engaged in local decision making.

City of Parramatta

Parramatta 2038 Community Strategic Plan (Parramatta City Council 2013) (Community Strategic Plan) was released in June 2013. The overall vision of the Community Strategic Plan is 'Parramatta will be the driving force and heart of Australia's most significant economic region; a vibrant home for diverse communities and a centre of excellence in research, education and enterprise'.

Six strategic objectives have been identified to help deliver the vision for Parramatta. Of direct relevance to the project is the strategic objective of connectivity. The aim of this objective is by 2038 for Parramatta to be a city with fast, reliable transport and digital networks that connect people to each other, to the information and services they need and to where they need to go.

The *Parramatta City Economic Development Strategy 2011 – 2016* (Parramatta City Council 2011) (Economic Development Strategy) provides a 25 year vision and five year strategy for the economic development of Parramatta. The Economic Development Strategy forecasts Parramatta's new jobs will develop in high-value industries located in four strategic centres: the Parramatta CBD, Westmead, Rydalmere and Camellia. The strategy outlines six economic development priorities for Parramatta, including:

- Identity – establishing a competitive identity that differentiates Parramatta from other locations and influences the supply of infrastructure and investment.
- Business – developing the capacity of local forms and industry to grow, specialise and employ.
- Labour – educating, retaining and attracting labour with skills aligned to the needs of local industry.
- Property – developing land and property assets to promote and accommodate jobs growth and house the workforce of the future.
- Amenity – facilitating vibrant, safe and attractive street life capable of attracting people and business.
- Infrastructure – securing infrastructure to bring the various parts of the City of Parramatta together and connect it to greater Sydney and the world.

The project generally supports the vision and aims of the Community Strategic Plan and Economic Development Strategy.

Auburn City Community Strategic Plan 2013-2023

Auburn City Community Strategic Plan 2013-2023 (Auburn City Council 2013) (Community Strategic Plan) outlines a new approach to planning for Auburn City's future. The overall vision is for Auburn City to be a community with a sense of pride. The Community Strategic Plan focuses on the outcomes to be achieved for Auburn City over the next ten years.

The Community Strategic Plan identifies 20 strategies aimed at attaining the identified aspirations. Priority areas, identified by the community relevant to the project include:

- Improved planning for residential developments and growth areas.
- Better access to and provision of roads and footpaths.
- Improved traffic management.

The outcomes to address these priority areas include:

- Good transport and traffic management.
- Movement of people that is safe, accessible and efficient.

The vision and aims outlined in the Community Strategic Plan are generally supported by the project.

Strathfield City

The *Strathfield 2025 Community Strategic Plan* (Strathfield Council 2013) (Strathfield 2025) is Strathfield Council's long-term strategic document which sets the goals and strategies to 2025. Strathfield 2025 adopts five broad themes to support and implement the vision of 'Strathfield [as] a well-connected urban centre in Sydney's Inner West with rich cultural diversity and a strong sense of community cohesion'.

Transport and issues such as traffic congestion were identified as being of high importance to the Strathfield community. Priorities identified include:

- Address traffic congestion.
- Improve mobility, ease and safety of public and private transport.
- Accessible and available public transport.
- Maintain roads and footpaths.

Strathfield Economic Development Plan 2009-2013 (Strathfield Council 2009) (SEDP) identifies a vision for a collaborative, innovative, and sustainable business community that is integrated with the local community. It seeks to guide Strathfield's local economy and achieve community benefit and quality of life through business activities and investment that creates and retains business and employment.

The SEDP identifies four pillars and associated strategies, relating to:

- Places and infrastructure, including infrastructure that supports business.
- People, including tackling barriers to employment.
- Enterprise.
- Marketing and promotion, including social and recreational development.

The project supports the priorities and aims of the Strathfield community by improving transport connectivity and alleviating traffic congestion in the region.

5. Existing socio-economic environment

This section describes existing socio-economic characteristics and features of the study area to provide a baseline against which the project's socio-economic impacts can be assessed. This includes information on population and housing, the economy, community values, social infrastructure and transport and access.

5.1 Regional context

The project extends from Holroyd local government area (LGA) in the west to Strathfield LGA in the east. This section provides a brief overview of each of the LGAs within the project study area.

5.1.1 Holroyd local government area

Holroyd LGA is located approximately 25 kilometres west of the Sydney central business district (CBD) and covers an area of about 40 square kilometres. In 2012, Holroyd LGA had an estimated residential population of about 106,038 people. Over the 10 years to 2012, Holroyd LGA's population grew by about 17,000 people or 19 per cent, nearly double the rate of population growth of NSW over the same period (ABS, 2013).

European settlement in Holroyd dates from the 1790s with the expansion of Parramatta, although population was minimal until the 1850s and 1860s. The opening of railway stations in the city's east saw the growth of the city's population in the late 1870s and 1880s. The most significant residential development occurred during the 1950s and 1960s, aided by post-war immigration and industrial growth. Most of the growth in the last two decades has been from the development of medium and high density housing in the established areas, but more recently has been from redevelopment of previous industrial land in the suburb of Pemulwuy (<http://profile.id.com.au/holroyd>).

Holroyd LGA is a predominantly residential area, with about 60 per cent of the LGA comprising residential uses. Industrial uses account for about 30 per cent of land area in the LGA, with major industrial areas located at Girraween, Greystanes, Guildford, Smithfield, Toongabbie and Yennora. Commercial uses comprise about seven per cent of land in the LGA. Holroyd City has two town centres at Merrylands and Wentworthville, as well as numerous small to large scale shopping centres (www.holroyd.nsw.gov.au).

The LGA has a number of parks and sports grounds that provide for a range of formal and informal recreation activities, including Central Gardens Nature Reserve at Cumberland Highway, Holroyd Gardens at Pitt Street and Freame Park and Holroyd Sportsground adjacent to the M4 Motorway. The LGA also includes community uses and features that cater for both local and regional communities, such as the Westmead Rehabilitation Hospital at Coleman Street and the Sydney Murugan Temple at the Great Western Highway.

Holroyd LGA is serviced by a number of major roads including the M4 Motorway, Great Western Highway, the Cumberland Highway and Parramatta Road. Other key transport routes serving the LGA include the Western, Cumberland and South railway lines and the Liverpool to Parramatta Transitway.

5.1.2 Parramatta local government area

Parramatta LGA is located about 24 kilometres west of the Sydney CBD. It covers an area of about 60 square kilometres. It had a residential population of about 178,549 people in June 2012. Parramatta LGA's population increased by about 32,000 people, or about 21.6 per cent, between 2002 and 2012, which was about double the rate of growth experienced in NSW as a whole over the same period (ABS 2013).

European settlement in the area dates back to 1788, with land mainly used for farming. The Parramatta Township was established in 1790, south of the Parramatta River. Parramatta grew significantly following the construction of the Sydney to Parramatta railway line in the 1850s and continued in the late 1800s with Parramatta becoming a commercial centre for the western Sydney area. Industrial growth, immigration and the establishment of several public housing estates during the post-war years saw Parramatta's population boom in the 1950s and 1960s. While growth continued from the 1970s, this was at a slower rate to previous years. In

recent years, much of the LGA's growth has come from urban consolidation and development of medium and high density housing (<http://profile.id.com.au/parramatta/about>).

Today, the Parramatta LGA is the geographical, commercial and cultural capital of Western Sydney and identified as Sydney's second CBD. The LGA offers a diverse economic base with key employment sectors including health and community services, manufacturing, retail, and property and business. In 2011, the LGA provided employment for about 120,000 people, making it the second largest work destination in Sydney (www.economicprofile.com.au/parramatta).

Parramatta LGA is a predominantly residential area, although it also provides substantial institutional, industrial and commercial land uses. The main industrial areas are located east of the Parramatta CBD at Camellia, Clyde, Granville, Melrose Park, Rosehill and Rydalmere, with several smaller industrial areas at Northmead, North Parramatta, Old Toongabbie and Pendle Hill. Major retail centres include the Parramatta CBD predominantly located north of the railway line, and Westfield Parramatta Shopping Centre at Church Street South. Numerous smaller centres are also located in surrounding suburbs (<http://economy.id.com.au/parramatta/infrastructure>).

Parramatta LGA provides a range of community services and facilities for residents in local communities and the wider region. These include major public and private hospitals (Westmead Hospital, The Children's Hospital at Westmead, and Cumberland Hospital, Westmead Private Hospital), University of Western Sydney, Parramatta City Raceway, Parramatta Stadium and the Rosehill Gardens Racecourse. The LGA also provides numerous parks and reserves offering a variety of opportunities for active and passive recreational activities (<http://economy.id.com.au/parramatta/infrastructure>, www.parracity.nsw.gov.au).

Parramatta LGA is serviced by a number of major roads including the M4 Motorway, Great Western Highway, Cumberland Highway, Parramatta Road, Windsor Road and Pennant Hills Road. Other key transport routes serving the LGA include the Western, Cumberland and Carlingford railway lines, and the Liverpool to Parramatta and North West Transitways.

5.1.3 Auburn local government area

Auburn LGA is located about 17 kilometres from the west of Sydney CBD and covers an area of about 32 square kilometres. In 2012, Auburn LGA had a residential population of about 80,422 people (ABS 2012). The LGA is one of the most culturally diverse LGAs in Australia. In 2011, about 57 per cent of Auburn LGA's population was born overseas, coming from over 125 countries, and more than 71 per cent spoke a language other than English (Auburn, undated).

European settlement in the LGA dates from 1792, with the establishment of farms for sheep and cattle. The opening of the railway lines in the 1870s and 1880s saw growth increase and many industries established, with the area developing as an industrial area during the early 1900s. Auburn developed significantly during the post-war period. The population declined from the 1960s through to the early 1980s, before increasing again from the late 1980s. Growth from the 1990s has been driven by the Sydney Olympics, which saw large industrial areas redeveloped for sport, recreation, entertainment and medium to high density housing (www.profile.id.com.au/auburn).

Today, Auburn LGA is predominantly a residential and industrial area. However, the LGA also includes significant commercial, institutional, recreational and parkland areas, as well as substantial areas used for a prison and a cemetery. Redevelopment of former industrial and government land is expected to continue to drive growth in the LGA in the immediate future (www.profile.id.com.au/auburn).

Auburn LGA includes a number of important features, of which the Sydney Olympic Park is the most significant. Developed for the 2000 Sydney Olympics, the park includes a wide range of facilities used for sporting and cultural events, including the Sydney Royal Easter Show, Sydney Festival, music festivals and sporting fixtures.

The Sydney Olympic Park also contains commercial development and extensive parklands. The area is identified in the draft Metropolitan Strategy for Sydney to 2031 as a Specialised Precinct with capacity for major employment, recreation and housing growth. In addition, the adjoining Carter Street and Wentworth Point areas

have been identified as potential Urban Activation Precincts to supplement the wider regeneration of Sydney Olympic Park (DPI 2013). Carter Street Urban Activation Precinct, located in Lidcombe, is 52 hectares in area and is proposed to accommodate a mix of residential and commercial development and areas of open space. This includes more than 5,500 new homes, a retail centre with up to 12,000 square metres of shops and services and an 11.4 hectare business and technology park. Wentworth Point Urban Activation Precinct covers an area of about 18.6 hectares and is proposed to provide a range of residential, community and recreational uses.

Auburn LGA is serviced by a number of major roads including the M4 Motorway, Parramatta Road, Silverwater Road/St Hillier's Road (A6), as well as the Western railway line.

5.1.4 Strathfield local government area

Strathfield LGA is located in Sydney's inner west, about 14 kilometres west of the Sydney CBD, and covers an area of about 14 square kilometres. In 2012, Strathfield LGA had an estimated residential population of about 37,665 people (ABS 2012).

Strathfield LGA is a predominantly residential area, with some industrial and commercial land use. European settlement of the area dates back to the mid-1790s. The opening of stations on the Sydney to Parramatta railway line saw population growth increase in the late 1800s. Significant development occurred during the 1960s and 1970s, with many units and townhouses built around the railway stations. The population of the LGA remained relatively stable during the early 1990s, with the population growing from the mid-1990s, largely driven by the development of high to medium density housing (www.profile.id.com.au/strathfield).

Strathfield LGA includes a large number of parks, open space and recreational facilities, including major parks such as Strathfield, Airey and Mason parks to small neighbourhood parks and open spaces. The Bay to Bay walk and cycleway connects Strathfield from south to north along the Cooks River and Powells Creek.

A significant feature of the LGA includes the Sydney Markets, including the Sydney Produce Market, Sydney Flower Market and Sydney Growers Market, as well as the Paddy's Flemington Market.

The LGA is serviced by a number of major roads including the M4 Motorway, Parramatta Road, Homebush Bay Drive/Centenary Drive (A3) and Liverpool Road. Other key transport routes serving the LGA include the Western and Northern railway lines.

5.2 Population and housing

This section describes the key population, demographic and housing characteristics of the study area. In particular, it provides information on those groups within the community that may be most vulnerable to changes brought about by the project due to their level of economic resources, age or need for assistance.

Data is provided for each of the Statistical Area Level 2 (SA2) areas within the study area along with data for NSW as a comparison. The information presented is primarily based on data from the ABS 2011 Census, supplemented with information and data from other relevant sources such as NSW Government departments and local councils.

5.2.1 Population size, growth and mobility

A breakdown of population in the study area is provided in **Table 5-1**. The study area had a total resident population of about 194,026 people in 2012. Auburn had the largest resident population in the study area with 35,853 people, followed by Lidcombe. Homebush Bay had the smallest resident population with 12,952 people, reflecting the presence of the Sydney Olympic Park in this area (ABS, 2013).

Between 2007 and 2012, the resident population of the study area grew by about 22,869 people, an increase of about 13.4 per cent. This was more than double the rate of population growth in NSW over the same period. Homebush Bay recorded the greatest population growth (at 24.7 per cent).

Table 5-1 Population size, 2007-2012

Location	Estimated resident population		Population change (2007 – 2012)	
	2007	2012	Number	Per cent
Merrylands SA2	25,240	27,598	2,358	9.3
Parramatta SA2	20,270	24,430	4,160	20.5
Granville SA2	17,173	19,685	2,512	14.6
Auburn SA2	32,026	35,853	3,827	11.9
Homebush Bay SA2	10,387	12,952	2,565	24.7
Lidcombe SA2	28,532	32,336	3,804	13.3
Homebush SA2	11,339	13,390	2,051	18.1
Strathfield SA2	26,190	27,782	1,592	6.1
Study area	171,157	194,026	22,869	13.4
Greater Sydney	4,325,525	4,672,619	347,094	8.0
NSW	6,834,156	7,301,134	466,978	6.8

Source: ABS Regional Population Growth, Australia: Estimated Resident Population, NSW Statistical Areas Level 2, 2013

Most recent information on population projections for the study area is only available at a LGA level. LGAs in the study area are expected to experience higher rates of population growth over the 20 years to 2031 compared to NSW. Between 2011 and 2031, the combined population of the LGAs is projected to increase by about 42.5 per cent, compared to about 27.5 per cent in NSW (refer to **Table 5-2**).

Population growth in the study area is driven by relatively high levels of growth in the LGAs of Auburn, Strathfield and Parramatta. The Draft Metropolitan Strategy identifies intensifying housing development around the Parramatta CBD and adjacent suburbs as a priority, while Carter Street at Lidcombe and Wentworth Point have been identified in the Draft Metropolitan Strategy as Urban Activation Precincts, accommodating a mix of residential and commercial development and areas of open space. Population growth in the study area is also expected to result from the intensification of existing low density suburbs for medium to high density development.

Table 5-2 Population projections, 2011-2031

Local government area	Population		Population change (2011-2031)	
	2011	2031	Number	Per cent
Holroyd	103,900	131,400	27,600	26.6%
Parramatta	174,600	257,400	82,800	47.4%
Auburn	78,300	121,700	43,400	55.4%
Strathfield	37,100	56,500	19,400	52.3%
Combined LGAs	393,900	567,000	173,200	44.0%
NSW	7,211,500	9,193,900	1,982,400	27.5%

Source: NSW Planning and Infrastructure (2013) New South Wales in the future: Preliminary 2013 population projections – special release of NSW state and local government area population projections. NSW Government.

The study area as a whole had relatively high levels of population mobility, with lower proportions of people who lived at the same address either 12 months or five years prior to the 2011 Census compared to greater Sydney and NSW. In 2011, about 76.2 per cent of people in the study area lived at the same address 12 months previously, while about 48.1 per cent of people lived at the same address as five years previously. This is compared to about 81.1 per cent and 56.7 per cent respectively, of people in greater Sydney (refer to **Table 5-3**).

Within the study area, levels of mobility varied with some SA2 areas, such as Granville and Lidcombe demonstrating a lower level of population mobility and relatively stable population, while other areas such as Homebush Bay, Parramatta and Homebush demonstrating higher levels of population mobility. The higher level of population mobility in these areas may reflect recent urban development in these areas, including the redevelopment of former industrial areas for medium to high density housing.

Table 5-3 Population mobility, 2011

Location	Same address 12 months ago (per cent)	Same address five years ago (per cent)
Merrylands SA2	80.6	55.0
Parramatta SA2	68.1	31.4
Granville SA2	80.4	56.4
Auburn SA2	77.8	50.5
Homebush Bay SA2	63.4	29.9
Lidcombe SA2	80.3	55.2
Homebush SA2	71.0	36.9
Strathfield SA2	77.6	51.6
Study area	76.2	48.1
Greater Sydney	81.1	56.7
NSW	81.0	57.2

Source: ABS 2011 Census

5.2.2 Age profile

The study area as a whole generally has a younger population compared to greater Sydney and NSW, with a lower median age, higher proportions of people aged 15-44 years and lower proportions of people aged 65 years or older (refer to **Table 5-4**).

In 2011, the average median age in the study area was 31 years, five years below that for greater Sydney and seven years below that for NSW. All SA2 areas recorded median ages below the greater Sydney and NSW averages. Auburn, Homebush and Parramatta had very young median ages at eight or nine years below the NSW average.

Compared to greater Sydney and NSW, the study area, generally had higher proportions of people aged 15-44 years and lower proportions of children aged 14 years or younger and older people aged 65 years or over. However, the age profile of communities in the study area varied, with:

- Auburn, Granville and Merrylands generally reflecting higher levels of young families, demonstrated by relatively high proportions of children aged 14 years or younger, youth aged 15-25 years and people aged 25-44 years and low proportions of older people.
- Homebush Bay and Parramatta comprising very high proportions of people aged 25-44 years and very low proportions of older people.
- Homebush, Strathfield, and Lidcombe generally comprising higher proportions of people in the 15-24 years and 25-44 year age groups, and lower proportions of children and older people.

Table 5-4 Age profile, 2011

Location	0-14 years (per cent)	15-24 years (per cent)	25-44 years (per cent)	45-64 years (per cent)	65+ years (per cent)	Median age (years)
Merrylands SA2	20.8	14.2	32.5	21.0	11.4	32
Parramatta SA2	15.7	13.4	50.9	14.2	5.8	30
Granville SA2	21.4	15.9	32.4	21.2	9.1	31
Auburn SA2	21.5	17.6	33.2	19.5	8.3	29
Homebush Bay SA2	17.2	10.4	47.2	20.4	4.8	33
Lidcombe SA2	18.5	15.4	31.6	24.2	10.3	33
Homebush SA2	16.1	16.0	41.6	19.5	6.9	30
Strathfield SA2	14.4	17.4	31.6	23.1	13.5	33
Study area	18.5	15.4	36.2	20.6	9.3	31
Greater Sydney	19.2	13.3	30.3	24.4	12.9	36
NSW	19.3	12.9	27.7	25.5	14.7	38

* This is the average of median ages of SA2 areas in the study area

Source: ABS 2011 Census

5.2.3 Cultural diversity

Communities in the study area are culturally diverse, with very high proportions of people born overseas and people who speak a language other than English (refer to **Table 5-5**).

In 2011, about 55 per cent of the study area's population were born overseas, compared to about 34.2 per cent in greater Sydney and 25.7 per cent in NSW. The most common countries of birth for overseas born people included:

- China (excluding Special Administrative Regions (SARs) and Taiwan) (9.4 per cent).
- India (8.1 per cent).
- Lebanon (3.7 per cent).
- South Korea (3.7 per cent).

At a SA2 level, Parramatta, Homebush and Auburn had very high proportions of overseas born people with about 60 per cent or more of people in these SA2 areas born overseas. Parramatta in particular, had a high proportion of people born in India, which was the most common country of birth for people in this SA2 area.

About 66.0 per cent of people in the study area spoke a language other than English at home at the 2011 Census, compared to 32.5 per cent and 22.5 per cent in greater Sydney and NSW respectively. Other than English, the most common languages spoken by people in the study area included:

- Arabic (11.2 per cent).
- Mandarin (7.8 per cent).
- Cantonese (7.4 per cent).

At a SA2 level, Auburn, Lidcombe and Parramatta had very high levels of people who spoke a language other than English at the 2011 Census. In particular, more than three quarters of people in Auburn spoke a language other than English at the 2011 Census. The most commonly spoken language at home in Auburn was Arabic, followed by English and Mandarin.

At the 2011 Census, about 21.4 per cent of people in the study area did not speak English well or at all, compared to 13.5 per cent in greater Sydney and 12.3 per cent in NSW. All SA2 areas in the study area had proportions of people who did not speak English well or at all above both greater Sydney and NSW as a whole, with Auburn recording the highest proportion, at 30.2 per cent. People who do not speak English well or at all represent a stakeholder group with particular communication needs and a group who may be more vulnerable to changes from the project.

Overall, the study area had relatively low proportions of Aboriginal people. At the 2011 Census, about 1,015 people in the study area registered as Aboriginal. This represented about 0.6 per cent of the study area's total population, compared to about 1.2 per cent in greater Sydney and 2.5 per cent in NSW. Homebush Bay had the highest proportion of Aboriginal people (at 2.2 per cent).

Table 5-5 Cultural diversity, 2011

Location	Aboriginal (per cent)	Born overseas (per cent)	Speaks LOTE* at home (per cent)	Does not speak English well or at all (per cent)
Merrylands SA2	0.9	45.3	57.0	17.4
Parramatta SA2	0.6	64.6	67.1	14.1
Granville SA2	0.7	47.5	64.5	22.1
Auburn SA2	0.2	59.6	78.8	30.2
Homebush Bay SA2	2.2	46.1	43.6	12.7
Lidcombe SA2	0.4	57.8	72.6	28.0
Homebush SA2	0.3	60.6	66.7	18.0
Strathfield SA2	0.2	53.8	60.7	16.2
Study area	0.6	55.1	66.0	21.4
Greater Sydney	1.2	34.2	32.5	13.5
NSW	2.5	25.7	22.5	12.3

* Refers to Language other than English

Source: ABS 2011 Census

5.2.4 Households and families

There were about 56,661 households in the study area at the 2011 Census. Overall, the study area had higher proportions of family and group households and a lower proportion of lone person households compared to both greater Sydney and NSW (refer to **Table 5-6**). In 2011, all SA2 areas in the study area, apart from Parramatta, had higher proportions of family households compared to NSW. Lidcombe had the highest proportion of family households (at 78.8 per cent), followed by Auburn and Granville.

Group households comprised about 5.6 per cent of households in the study area, slightly higher than NSW as a whole at 3.8 per cent. The proportion of group households varied across the study area. Parramatta had relatively high proportion of group households, which is likely to reflect the younger population of this area. At the same time, Merrylands had a relatively low proportion of group households.

About one in five households in the study area comprised lone person households, which was below the NSW average at about 24.2 per cent. Parramatta had the highest proportion of lone person households and was the only SA2 area in the study area with proportions of lone person households above the NSW average.

Table 5-6 Households, 2011

Location	Family household (per cent)	Lone person household (per cent)	Group household (per cent)	Number of households
Merrylands SA2	74.6	22.2	3.2	8,459
Parramatta SA2	66.2	25.8	8.0	8,000
Granville SA2	76.2	19.8	4.0	5,449
Auburn SA2	78.7	15.5	5.8	9,344
Homebush Bay SA2	73.6	21.8	4.6	3,652
Lidcombe SA2	78.8	16.6	4.6	9,276
Homebush SA2	74.3	18.6	7.1	4,129
Strathfield SA2	74.0	18.7	7.3	8,352
Study area	74.8	19.7	5.6	56,661
Greater Sydney	73.1	22.6	4.3	1,521,398
NSW	71.9	24.2	3.8	2,471,295

Source: ABS 2011 Census

There were about 44,836 families in the study area at the 2011 Census, of which about 35 per cent lived in the adjacent SA2 areas of either Auburn or Lidcombe. Compared to NSW, the study area generally had lower proportions of couple only and one parent families, and higher proportions of couple families with children and other families. In 2011, couple only families comprised about 31.1 per cent of families in the study area, compared to about 33.5 per cent in greater Sydney and 36.6 per cent in NSW. Homebush Bay had the highest proportion of couple only families in the study area, followed by Parramatta. Each of the other SA2 areas had proportions of couple only families below the NSW average.

About half of families in the study area comprised couple families with children. Auburn and Granville recorded the highest proportions of couple families with children. Parramatta and Homebush Bay were the only SA2 areas with proportions of this family type below the NSW average.

'Other families' comprised about 3.1 per cent of households in the study area, compared to about 1.7 per cent in NSW. These included groups of related individuals residing in the same household, who cannot be categorised as belonging to a couple or one parent family (ie two brothers living together and neither is a spouse/ partner, lone parent or child). Parramatta had the highest proportion of 'other family' type (at four per cent), followed by Strathfield (at 3.7 per cent) and Auburn (at 3.1 per cent).

5.2.5 Housing

In 2011, there were about 59,929 dwellings in the study area. The study area had relatively high rates of occupancy, with about 94.5 per cent of dwellings occupied at the 2011 Census, compared to about 92.8 per cent in greater Sydney and 90.3 per cent in NSW. Homebush Bay had the lowest occupancy levels (at 93 per cent), although this was still above the NSW average.

Overall, the study area had relatively high proportions of high density dwellings such as flats, units and apartments and lower proportions of separate houses (refer to **Table 5-7**). In 2011, about 43.7 per cent of dwellings in the study area comprised flats, units or apartments. This is more than double the NSW average at about 18.8 per cent.

The high level of medium to high density dwellings in the study area is driven by very high proportions of flats, units or apartments in Parramatta, which reflects the recent residential development occurring in the Parramatta CBD and surrounding areas. Other areas with high proportions of high density housing include Homebush, Homebush Bay, and Auburn, which have been the subject of recent urban developments, including the redevelopment of former industrial areas for medium to high density housing.

Each of the SA2 areas in the study area had proportions of separate houses below greater Sydney and NSW. Granville had the highest proportion of separate houses in the study area, with this dwelling type comprising about 64.4 per cent of dwellings at the 2011 Census.

While the proportion of semi-detached dwellings in the study area as a whole was consistent with the NSW average, Lidcombe and Merrylands had relatively high proportions of this dwelling type, at 18.0 per cent and 15.6 per cent respectively.

Table 5-7 Dwelling characteristics, 2011

Location	Separate house (per cent)	Semi-detached dwelling (per cent)	Flat, unit or apartment (per cent)	Total dwellings	Occupancy rate (per cent)
Merrylands SA2	54.3	15.6	29.9	8,947	94.5
Parramatta SA2	13.5	4.3	82.0	8,571	93.4
Granville SA2	64.4	11.5	23.0	5,810	93.8
Auburn SA2	48.6	9.4	41.6	9,792	95.4
Homebush Bay SA2	33.1	3.6	63.2	3,927	92.9
Lidcombe SA2	58.6	18.0	23.1	9,740	95.2
Homebush SA2	24.3	5.8	69.6	4,332	95.3
Strathfield SA2	55.5	6.0	38.1	8,810	94.8
Study area	45.9	10.1	43.7	59,929	94.5
Greater Sydney	60.9	12.8	25.8	1,640,199	92.8
New South Wales	69.5	10.7	18.8	2,736,637	90.3

Source: ABS 2011 Census

Housing cost and tenure

The study area generally had relatively high proportions of households that were renting and low proportions of owner occupied houses, compared to greater Sydney and NSW (refer to **Table 5-8**).

In 2011, about 42.2 per cent of households in the study area were renting, compared to about 30.1 per cent in NSW, with all SA2 areas recording levels of rental households above the NSW average. Parramatta in particular, had very high levels of rental households, with over 60 per cent of households in this area renting, more than double the rate of rental households in greater Sydney and NSW. Other SA2 areas with high proportions of rental households included Homebush, Homebush Bay and Auburn. The high proportions of houses being rented in these areas suggest that there are lower levels of secure tenure. This also correlates with areas of relatively high population mobility and high density dwellings.

About 53.9 per cent of houses in the study area were either fully owned or being purchased (ie owned with a mortgage) in 2011. This is compared to 65.2 per cent of houses in greater Sydney and 66.5 per cent of houses in NSW. Lidcombe had the highest level of owner occupied houses, with these households comprising about 60.8 per cent of households in this area. This was followed by Strathfield (at 60.3 per cent). About one in three houses in Parramatta are either fully owned or being purchased, less than half the NSW average.

In 2011, there were 2,477 dwellings in the study area that were being rented from a State housing authority. This represented about 4.4 per cent of all dwellings in the study area, which is the same as the level of public rental housing in NSW. However, the levels of public rental housing varied across the study area with some areas having levels of public rental housing well above the state average. In particular, about 7.0 per cent of dwellings in Merrylands were being rented from a State housing authority. Other SA2 areas with levels of public rental housing above the state average included Granville, and Parramatta.

Households in the study area generally had higher housing costs compared to NSW, although costs were generally comparable to greater Sydney. In 2011, the average rent across the study area was about \$368 per week, compared to \$300 per week in NSW. All SA2 areas in the study area had median weekly rents above the NSW average. Homebush Bay had the highest median rent, at \$480 per week, followed by Strathfield (\$420 per week) and Homebush (\$390 per week). Granville and Auburn had the lowest rental costs in the study area, at \$320 per week.

The average monthly mortgage repayment in the study area at the 2011 Census was about \$2,056. This was lower than greater Sydney (at \$2,167) although higher than NSW as a whole (at \$1,993). All SA2 areas apart from Parramatta, Auburn and Granville had mortgage costs above the NSW average. Households in Homebush Bay and Strathfield had the highest housing costs, with median mortgage repayments between about \$2,400 and \$2,500 per month. The higher housing cost in Strathfield is likely to reflect the proximity of these areas to the Sydney CBD, while the higher costs in Homebush Bay is likely to reflect the more recent development that has occurred in this area.

Households in the study area are more likely to experience levels of housing stress than households in greater Sydney or NSW, with higher proportions of households paying 30 per cent or more of their income on rental or mortgage payments. However, rental households in the study area are more likely to experience levels of housing stress compared to households paying a mortgage, with proportions of rental households paying 30 per cent or more on rental payments well above the greater Sydney and NSW average.

All SA2 areas had proportions of households paying 30 per cent or more of their income on rental above both greater Sydney and Queensland. Parramatta had the highest proportion of households experiencing levels of housing stress with one in four households paying 30 per cent or more of their income on rent. This reflects the higher proportion of rental housing in this area. Strathfield and Parramatta were the only SA2 areas that had proportions of households paying 30 per cent or more on mortgage payments below Greater Sydney and NSW. Merrylands had proportions the same as greater Sydney, but above the NSW average. Households in Homebush Bay have the highest proportion of households likely to experience a level of mortgage stress, followed by Homebush and Granville.

Table 5-8 Tenure type and housing cost, 2011

Location	Tenure type (per cent)			Housing costs		Rental payments greater than or equal to 30 per cent of income	Mortgage payments greater than or equal to 30 per cent of income
	Fully owned or being purchased	Rented	Rented from State housing authority	Median rent per week	Median monthly mortgage repayment		
Merrylands SA2	55.9	40.5	7.0	\$330	\$2,000	18.3	12.0
Parramatta SA2	33.3	63.0	5.4	\$330	\$1,777	25.6	8.4
Granville SA2	59.6	35.8	6.2	\$320	\$1,950	15.8	14.2
Auburn SA2	53.9	41.2	4.4	\$320	\$1,800	21.9	14.1
Homebush Bay SA2	57.0	41.4	0.1	\$480	\$2,496	15.2	15.2
Lidcombe SA2	60.8	35.1	4.6	\$350	\$2,000	17.5	13.2
Homebush SA2	50.8	46.3	3.1	\$390	\$2,000	20.5	14.2
Strathfield SA2	60.3	35.5	1.7	\$420	\$2,427	17.0	10.8
Study area	53.9	42.2	4.4	\$368*	\$2,056*	19.0	12.8
Greater Sydney	65.2	31.6	4.5	\$351	\$2,167	12.6	12.0
NSW	66.5	30.1	4.4	\$300	\$1,993	11.6	10.5

* This is the average of median rent and mortgage repayments of SA2 areas in the study area

Source: ABS 2011 Census

5.2.6 Vulnerability and need for assistance

'Need for assistance' refers to people who need help or assistance in one or more of the three core activity areas of self-help, mobility or communication due to disability, a long term health condition or old age (ABS 2011). These groups may be more vulnerable to changes from the project, such as changes in local access, including to community services and facilities, effects associated with property acquisition, including loss of social and community networks, and changes in local amenity (ie increased noise and dust).

Overall, the study area had a slightly lower rate of people needing assistance than NSW, although the level of people needing assistance was comparable to greater Sydney. In 2011, 4.3 per cent of people in the study area indicated that they needed help or assistance in at least one of the three core activity areas, compared to about 4.4 per cent in greater Sydney and 4.9 per cent in NSW. However, the level of need for assistance varied across the study area, with Auburn, Granville, Merrylands and Granville all recording levels of people needing assistance above the NSW average. Homebush Bay and Homebush had the lowest levels of people needing assistance in the study area, at 1.3 per cent and 2.3 per cent respectively.

A community's level of disadvantage or access to economic resources may influence the ability of that community to cope with or respond to changes from the project. In particular, communities that display levels of relative disadvantage may be more vulnerable to the impacts of large infrastructure projects than those that display levels of relative advantage. However, improved access to employment opportunities would also provide benefits for those communities that display levels of relative disadvantage.

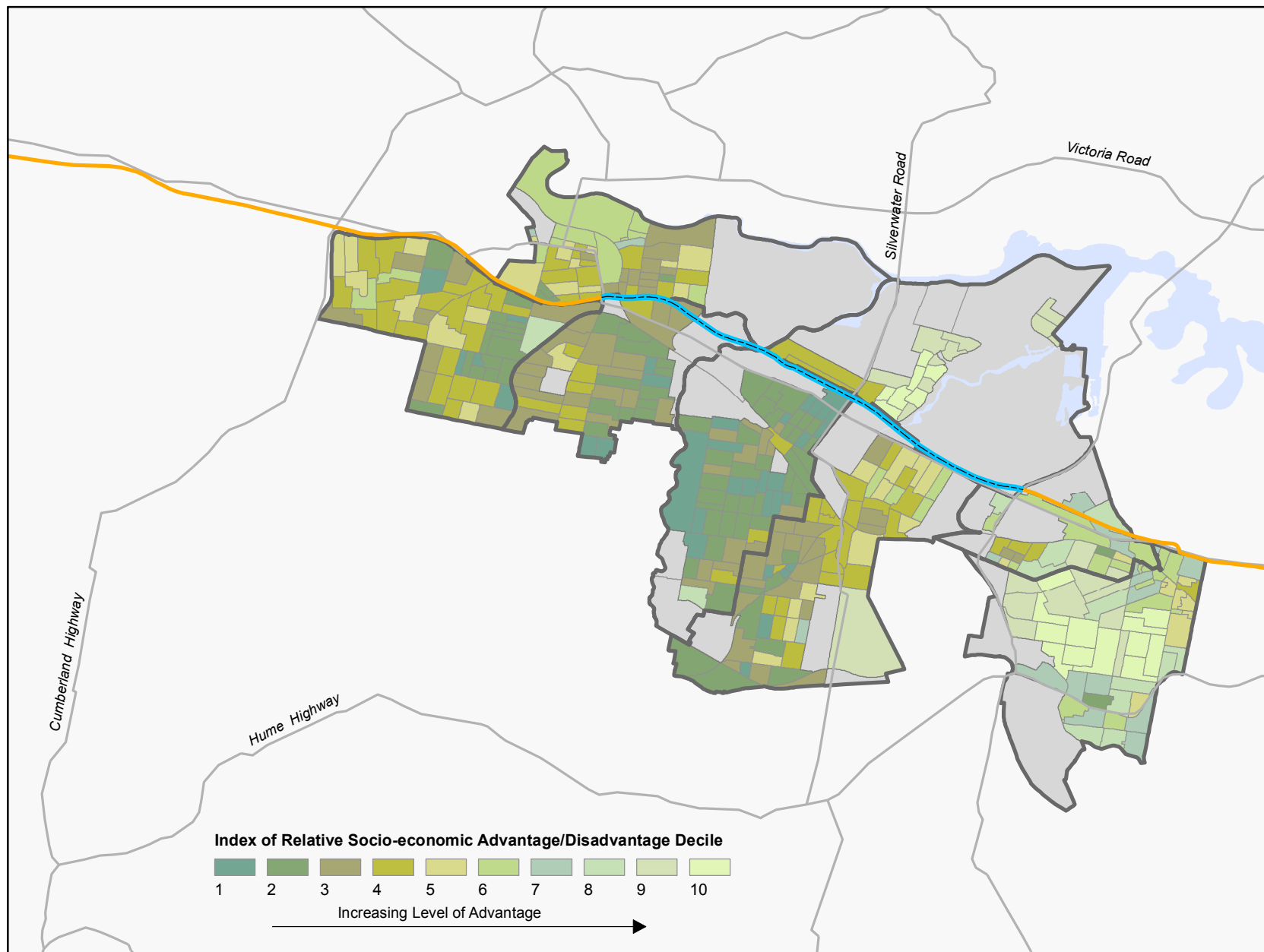
The ABS produces a range of indices that indicate relative levels of socio-economic advantage and disadvantage (Socio-economic Indexes for Areas (SEIFA)). The SEIFA index of relative socio-economic advantage/ disadvantage is derived from Census variables such as income, educational attainment, unemployment and vehicle ownership. Low decile values (ie scores of one to three) generally represent areas of disadvantage while high decile values (ie scores of seven to ten) generally represent areas of least disadvantage.

Figure 5-1 shows relative socio-economic advantage/ disadvantage within the study area at the 2011 Census. Levels of relative advantage/ disadvantage varied widely across the study area.

Auburn comprised concentrations of communities that displayed very high levels of relative disadvantage, with these communities recording a decile score of one or two. This places these communities within the bottom 20 per cent of communities in NSW in relation to relative disadvantage. Other SA2 areas with pockets of neighbourhoods displaying relative levels of disadvantage included Merrylands, Granville and Lidcombe. The study area also included neighbourhoods that displayed high levels of relative advantage and low levels of disadvantage. These were generally concentrated in the SA2 areas at the eastern end of the study area, such as Strathfield, Homebush and Homebush Bay.

The index of economic resources reflects the economic resources of households, based on indicators such as income, expenditure and assets including wages and rental costs for families, and variables that reflect wealth (eg dwelling size). Higher decile values generally indicate areas with a higher proportion of high-income families or owner occupied houses. Lower deciles indicate communities that are considered to have less financial resources, reflecting many households with low incomes or paying low rent, and few households with high incomes (ABS, 2006a).

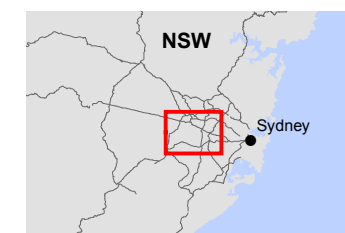
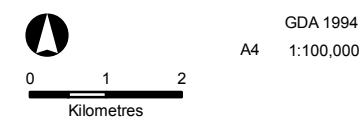
Figure 5-2 shows levels of economic resources within the study area at the 2011 Census. Communities in the study area displayed varying levels of access to economic resources, with pockets of neighbourhoods displaying relatively low levels of economic resources located south of the M4 Motorway and Parramatta Road in Auburn, north of the motorway in Parramatta and west of the railway line at Merrylands.



LEGEND

- M4 Widening project
- Western Motorway
- Major Road
- SA2 Boundary
- Socio-economic data not available
- Watercourse / Waterbody

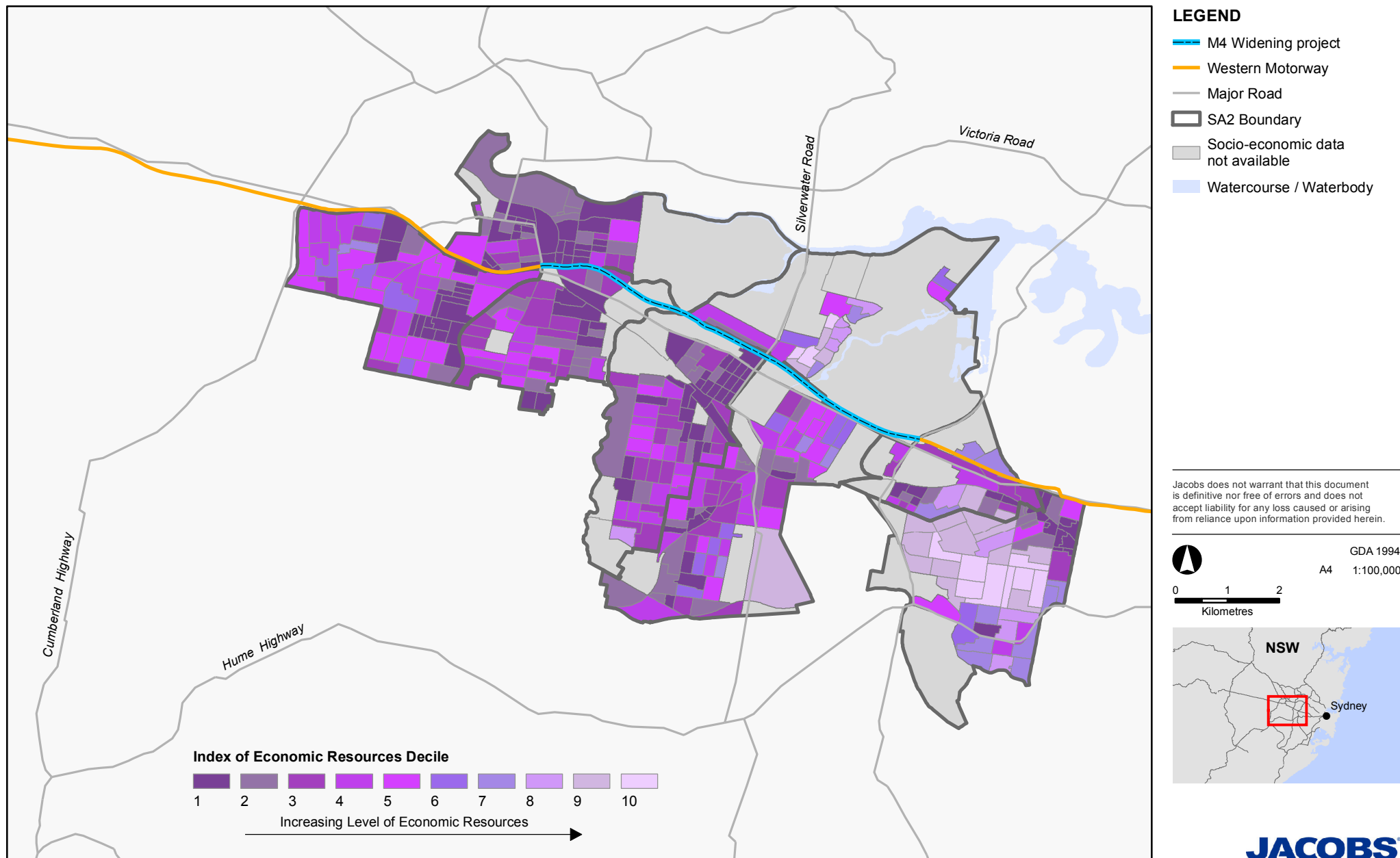
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JACOBS

WestConnex M4 Widening Socio-economic Assessment - Socio-economic Advantage/Disadvantage

FIGURE 5-1



WestConnex M4 Widening Socio-economic Assessment - Index of Economic Resources

FIGURE 5-2

5.2.7 Vehicle ownership

The study area generally had relatively low levels of vehicle ownership compared to greater Sydney and NSW, with higher proportions of households without access to a vehicle and lower proportions of households with multiple vehicles (refer to **Table 5-9**).

In 2011, about 79.8 per cent of households in the study area had at least one motor vehicle, compared to 84.9 per cent in greater Sydney and 86.4 per cent in NSW. However, the study area had higher proportions of households with one vehicle only and lower proportions of households with multiple vehicles. About 16.4 per cent of households in the study area did not have access to a vehicle, compared to about 12.1 per cent in greater Sydney and 10.4 per cent in NSW, with all SA2 areas apart from Homebush Bay having proportions of households without a vehicle above the greater Sydney and NSW averages. Parramatta had the highest proportion of households without access to a vehicle, at more than double the rate for NSW as a whole. Auburn and Strathfield also had very high proportions of households without a vehicle.

The lower level of vehicle ownership in the study area is likely to reflect the area's access to a range of alternative transport options, such as public transport, as well as the proximity of the study area to local employment opportunities. However, the lower levels of vehicle ownership are also likely to reflect the higher levels of relative disadvantage experienced by some communities in the study area.

Table 5-9 Vehicle ownership, 2011

Location	Households with no vehicle (per cent)	Households with one vehicle (per cent)	Households with two or more vehicles (per cent)
Merrylands SA2	14.5	41.5	40.4
Parramatta SA2	23.0	53.3	20.0
Granville SA2	16.2	38.5	40.6
Auburn SA2	18.0	42.6	34.3
Homebush Bay SA2	3.9	44.4	50.1
Lidcombe SA2	14.7	41.6	39.5
Homebush SA2	15.7	51.8	30.0
Strathfield SA2	17.7	36.9	42.0
Study area	16.4	43.3	36.5
Greater Sydney	12.1	38.4	46.5
NSW	10.4	37.8	48.6

Source: ABS 2011 Census

5.3 Economic profile

This section describes the key economic characteristics of the study area, including income and employment and travel. It also identifies businesses and industry that may change as a result of the project's construction and/ or operation.

5.3.1 Income and employment

Income

The study area had relatively high median weekly household incomes at the 2011 Census compared to NSW, although this was lower than greater Sydney. Income levels varied across the study area, with the higher median income for the study area as a whole largely driven by very high incomes in Homebush Bay (refer to **Table 5-10**). Auburn had the lowest median household income, at \$968 per week. Other SA2 areas with income levels below the NSW average included Granville, Merrylands and Lidcombe.

In 2011, the study area generally had lower proportions of both low income households (ie households with an income of less than \$600 per week) and high income households (ie those with an income of more than \$2,000 per week) compared to NSW. However compared to greater Sydney, the study area generally had higher proportions of low income households and lower proportions of high income households.

Auburn, Merrylands, Granville and Lidcombe all had proportions of low income households above the NSW average and proportions of high income households below NSW. Parramatta had proportions of high income and low income households below the NSW average, suggesting that this area had a higher proportion of households with average incomes. Homebush Bay had the highest proportion of high income households in the study area (at 45.2 per cent), followed by Strathfield (at 33.6 per cent).

Table 5-10 Household income, 2011

Location	Median weekly household income (\$)	Low income households* (per cent)	High income households** (per cent)
Merrylands SA2	1,079	24.0	19.4
Parramatta SA2	1,242	18.1	21.8
Granville SA2	1,062	23.2	18.8
Auburn SA2	968	24.9	15.1
Homebush Bay SA2	1,977	9.8	45.2
Lidcombe SA2	1,125	22.3	22.1
Homebush SA2	1,390	17.4	27.7
Strathfield SA2	1,465	18.2	33.6
Study area	1,289***	20.7	23.8
Greater Sydney	1,447	18.2	32.1
NSW	1,237	21.7	26.7

* Refers to households with a weekly income of less than \$600.

** Refers to households with a weekly income of more than \$2,000.

*** This is the average of median weekly household income of SA2 areas in the study area

Source: ABS 2011 Census

Employment

In 2011, the study area had a labour force of about 82,810 people. The study area had slightly lower rates of labour force participation compared to NSW as a whole, with 56.6 per cent of people aged 15 years or older either working or looking for work, compared to 59.7 per cent in NSW (refer to **Table 5-11**). However, labour force participation in the study area was considerably lower than greater Sydney (at 67.7 per cent).

The relatively low level of labour force participation was largely driven by very low rates of participation in Auburn, which recorded less than half of the population aged 15 years or over either working or looking for work. Other SA2 areas with low rates of labour force participation included Granville and Merrylands. Homebush recorded the highest levels of labour force participation in the study area, at 63.4 per cent.

The study area had a relatively high rate of unemployment, with about 8.2 per cent of the study area's labour force unemployed at the 2011 Census, compared to 5.7 per cent in greater Sydney and 5.9 per cent in NSW. Auburn and Granville had the highest rates of unemployment in the study area, with about 10 per cent of the labour force in these areas looking for work. In particular, these areas had very high rates of youth unemployment, with unemployment rates for people aged 15-19 years at about 26.5 per cent in Granville and about 23.7 per cent in Auburn, compared to about 16.8 per cent in NSW.

Homebush Bay had the lowest rate of unemployment in the study area, at 4.1 per cent, with this being the only SA2 area within the study area with levels of unemployment below NSW.

Table 5-11 Labour force participation and unemployment rates, 2011

Location	Labour force	Labour force participation (per cent)	Unemployment (per cent)
Merrylands SA2	11,201	54.9	8.6
Parramatta SA2	12,058	63.0	8.3
Granville SA2	7,661	53.4	9.8
Auburn SA2	12,564	48.3	10.7
Homebush Bay SA2	5,671	60.6	4.1
Lidcombe SA2	13,658	55.9	8.5
Homebush SA2	6,660	63.4	7.4
Strathfield SA2	13,337	60.0	6.2
Study area	82,810	56.6	8.2
Greater Sydney	1,728,563	67.7	5.7
NSW	3,334,857	59.7	5.9

Source: ABS 2011 Census

In 2011, key industries of employment for residents in the study area included health care and social assistance, retail trade and manufacturing. In general, the proportions of residents in the study area employed in health care and social assistance and retail trade was comparable to the NSW average. However, compared to NSW, the study area had a higher proportion of people employed in manufacturing, reflecting the industrial nature of the study area.

The study area also had proportions of residents employed in wholesale trade; accommodation and food services; financial and insurance services; transport, postal and warehousing; and administrative and support services above the NSW average. Industries that had lower representation of study area residents compared to NSW included construction; public administration and safety; and education and training.

5.3.2 Business and industry

Regional context

Table 5-12 provides an overview of business and employment in the study area LGAs. In 2012, there were 38,823 registered businesses within the study area LGAs, of which about 43 per cent were located in Parramatta, 21.6 per cent in Auburn, 21.1 per cent in Holroyd and 14.2 per cent in Strathfield (ABS Business Register 2012).

Collectively, the LGAs provided a total of about 253,374 jobs in 2012. Parramatta had the largest concentration of jobs, comprising about 48 per cent of jobs across the LGAs. This reflects the presence of the Parramatta CBD and Westfield Parramatta, which provide large concentrations of employment. Auburn had the second highest proportion of jobs, comprising 25.4 per cent of total jobs in the study area.

Between 2006 and 2011, the number of jobs in the study area LGAs increased by an average of about 1.6 per cent each year, which was slightly below the rate of employment growth in NSW. Employment growth in the study area was largely driven by high growth Auburn. Between 2011 and 2012, the rate of employment growth slowed in the study area to about 0.6 per cent, although employment continued to grow at a rate consistent with NSW as a whole.

Table 5-12 Business and employment counts, 2012

Local government area	Registered businesses	Total employment			Change (per cent)	
		2012	2011	2006	2006-2011 (average annual)	2011-2012
Holroyd	8,198	40,159	40,055	41,153	-0.5	0.3
Parramatta	16,728	121,440	121,599	112,544	1.6	-0.1
Auburn	8,384	64,468	63,366	55,034	3.0	1.7
Strathfield	5,513	27,307	26,902	23,939	2.5	1.5
Study area	38,823	253,374	251,922	232,670	1.6	0.6
NSW		3,572,760	3,550,685	3,244,193	1.9	0.6

Sources: ABS Business Register 2012; National Institute of Economic and Industry Research (NIEIR) 2011/ 12

Manufacturing is a key industry for the study area. In 2011, manufacturing registered as one of the top five industries of employment in each of the study area LGAs. In particular, manufacturing was an important industry for both Holroyd and Auburn, providing about 25.7 per cent and 16.4 per cent of employment in these LGAs respectively, and ranking as the highest industries of employment for workers in these areas.

Retail trade was also an important industry for the study area, registering as one of the top five industries of employment in all LGAs apart from Parramatta. However, retail trade was also an important industry in Parramatta, ranking as the sixth largest employer of workers in Parramatta in 2011. Retail trade was the second highest employer in Holroyd, employing about 10.8 per cent of workers in this area, and ranked as the third highest employer in Auburn and Strathfield.

Other important industries in the study area LGAs included transport, postal and warehousing; and wholesale trade, with all of these industries registering in the top five industries of employment for three of the four LGAs, and financial and insurance services; and health care and social assistance, which registered in the top five industries of employment in two of the four LGAs. Health care and social assistance was particularly important in Parramatta, registering as the largest employer in both of this LGA, reflecting the presence of large hospitals in these areas. Transport, postal and warehousing was the largest employer in Strathfield in 2011 (Auburn Profile id 2014; Parramatta Profile id 2014, Holroyd Profile id 2014, Strathfield Profile id 2014).

Other industries that ranked in the top five industries of employment in at least one LGA included public administration and safety (Parramatta); education and training (Strathfield); and construction (Parramatta).

Local context

The study area includes a range of industrial, commercial and retail development, ranging from major industrial, commercial and retail uses servicing the greater Sydney area and beyond to local business that cater for the day to day needs of local communities.

Commercial and retail development within the wider study area is focussed within the Parramatta CBD and along Parramatta Road. This includes major retail uses servicing communities in the study area as well as those in the greater Western Sydney region. In particular, Parramatta Road offers a concentration of large scale home wares and furniture stores and car yards, including both new and used car dealerships, as well as a range of commercial developments and light industrial uses.

A number of large industrial and business parks are also located within or near to the study area that service business and industry in greater Sydney and regional NSW. These include the Shell Terminal, Clyde Refinery, Db Business Park, Metropolitan Sydney Oil Pipeline Terminal and Newington Business Park located north of the motorway, and the Clyde Transfer Station, Clyde Marshalling areas and the Toohey's Brewery, located south of the motorway.

The Sydney Produce Market, Sydney Flower Market and Sydney Growers Market (Sydney Markets) and Paddy's Flemington Markets are located at the intersection of Parramatta Road and Marlborough Road at the eastern end of the study area. The main access to the markets is from Austin Road, via Marlborough Road. The Sydney Markets play a significant role in the horticultural industry and economy of NSW and Australia, supplying thousands of greengrocers, supermarkets, florists, food processors, restaurants and other food service outlets with fresh fruit, vegetables and cut flowers daily (www.sydneymarkets.com.au).

The Sydney Markets operate 24-hours, seven days a week. There are about 120 wholesalers, 349 produce growers, 172 flower growers-sellers and over 160 supporting businesses located at the site, employing over 5,000 people. An estimated 2,500,000 tonnes of fresh fruit and vegetables are sold through the Sydney Produce Market and Sydney Growers Market annually, valued at about \$3.0 billion. In addition, over \$150 million of fresh flowers are sold through the Sydney Flower Market annually. About \$100 million of fresh produce is exported from the markets annually (www.sydneymarkets.com.au).

The Paddy's Flemington Markets are open to the public on Friday, Saturday and Sunday. Along with Paddy's Market at Haymarket in Darling Harbour, the community markets attract about 140,000 customers each week (www.sydneymarkets.com.au).

The following provides an overview of the main industries and businesses located near the project in the study area.

Merrylands

Merrylands are predominantly residential in nature. Limited businesses are located near to the project in this location.

Parramatta and Granville

Parramatta and Granville comprise a mix of residential, commercial and light industrial uses.

A number of car yards are located near the project on Church Street and Parramatta Road at Granville, including both new and used car dealerships. Two businesses are located under the existing M4 Motorway viaduct at Junction Road near the corner of Church Street, being a car wash and car yard.

A small group of businesses are located at Good Street near the existing motorway corridor. These include a small general store and car and motor repair business at the corner of Good Street and A'Beckett Street.

Between James Ruse Drive and Duck River, business uses include a mix of small scale commercial and light industrial/ manufacturing uses located south of the motorway between Martha Street and Parramatta Road. A light industrial area is also located north of the motorway on Wentworth and Deniehy Streets, along with the Sydney Speedway and Rosehill heliport, located within the speedway. Access to the speedway is provided from both Wentworth Street and Deniehy Street.

A motorcycle rider training facility is located on land owned by (NSW) Roads and Maritime Services (Roads and Maritime) at Martha Street, directly adjacent to the existing motorway. The motorcycle rider training centre is one of about 20 Roads and Maritime accredited rider training facilities across NSW. A further six are located in the greater Sydney region at Rouse Hill, St Ives, Botany, Penrith, Campbelltown, and Loftus. The facility provides training and riding skills testing for motorcycle riders on behalf of Roads and Maritime.

Business and industrial uses located at Parramatta Road in Parramatta and Granville include a mix of commercial, retail and light industrial/ manufacturing uses. These include:

- Retail stores such as Bunnings and Caltex Fuel Stop.
- Motor retail and services, such as Bob Jane T-mart and Thrifty vehicle rental.
- Cumming James and Sons manufacturing, located on north of Parramatta Road.

Auburn, Lidcombe and Homebush Bay

Auburn, Homebush Bay and Lidcombe have substantial industrial areas and numerous business and retail parks.

Carter Street and Hill Road, located north of the motorway in Homebush Bay, have a high concentration of commercial and industrial uses, including:

- Homebush Corporate Park.
- Industrial warehouses, comprising businesses such as Moraitis Fresh packaging, Tetra Pak, Fastway Couriers, Tefal, DHL Express and Triangle Transport Services.
- Commercial centres, such as Force Access Equipment and Hire, Instant Access Scaffolding Hire, Suttons Holden Car Parts, Peugeot Car Dealership and the Laing O'Rourke Sydney Rail Operations Centre.

Carter Street and Wentworth Point has been identified as Urban Activation Precincts in the Draft Metropolitan Strategy. As indicated in **section 5.1.3**, Carter Street Urban Activation Precinct is proposed to be developed to provide a mix of land uses, including a retail centre at Uhrig Road providing up to 12,000 square metres of shops and services and a business and technology park covering 11.4 hectares next to the M4 Motorway corridor.

A light industrial area is also located at Junction Street and Adderley Street West at Auburn. This includes a concrete batching plant located under the existing motorway viaduct at Junction Street. A number of large scale retail uses are also located along Parramatta Road at Auburn, including the Homemaker Mall Auburn.

Other key commercial and retail uses are also located at:

- Lidcombe Business Park.
- Lidcombe and Auburn Power Centre.
- Redyard Auburn Retail Park.
- Gateway Business Park.

Strathfield and Homebush

Business and industry in Homebush and Strathfield are predominantly retail in nature. A small number of car yards and motorcycle retail outlets are located near to the motorway intersection with Parramatta Road.

The Bakehouse Quarter Precinct is located north of the motorway at North Strathfield. The precinct was the former Arnott's Factory and Warehouse. It comprises a number of retail, commercial and entertainment uses, including restaurants, shopping, and recreation uses. A car park for customers of the precinct is partially located under the existing motorway. Other major retail and commercial uses located near the project in this area include the Homebush Direct Factory Outlet retail precinct located on Homebush Bay Drive and the Campus Homebush Business Park located on Parramatta Road.

5.4 Community values

Community values are values held as important to residents for quality of life and well-being. They include physical elements such as parks, landscapes and pedestrian connectivity, and intangible qualities such as sense of place and community cohesion. Social infrastructure, such as religious facilities, schools, public places and community centres are highly valued in local communities, as are demographic characteristics and local features.

This section describes the community values important to residents in the study area. These have been informed by consultation with local residents undertaken for the project as well as the review of existing available information and observations of the study area.

Local amenity and character

Local amenity and character in the study area is generally characterised by a diversity of land uses including suburban and inner city residential neighbourhoods, major community facilities including open space and parkland, areas of commercial and industrial uses, and major transport corridors.

Overall, the study area displays high levels of amenity, with good access to public transport and the State road network, community facilities of state and regional significance, access to large areas of open space and recreation located within the Sydney Olympic Park and elsewhere, and residential neighbourhoods within easy reach of local services, employment and major centres such as the Parramatta CBD and Sydney CBD.

The study area's heritage and history associated with the area's Aboriginal culture and early European settlement of Sydney is also important to the character and identity of the study area, with a number of heritage items of natural, state and local significance located across the study area. There are no items of Aboriginal heritage registered within the project footprint area, although two sites were located within one kilometre (Kelleher Nightingale Consulting Pty Ltd 2013). Further information on Aboriginal heritage is in the *Aboriginal Archaeological Survey Report Stage 2 PACHCI* (Kelleher Nightingale Consulting Pty Ltd 2014) prepared for the EIS.

Major transport corridors such as the M4 Motorway, Great Western Highway, Parramatta Road, Homebush Bay Drive/ Centenary Drive (A3), Silverwater Road/St Hillier's Road (A6) and the Western railway line also influence the amenity of the study area. Amenity is currently compromised by increased travel times and traffic congestion on major roads and high levels of road traffic noise and rail noise. These major transport corridors also act as a barrier to movement within and between communities in the study area. Safety is also an issue for local communities with high traffic volumes on major roads impacting on road safety for local communities.

Community cohesion and liveability

Community cohesion refers to the connection and relationships between individuals, groups and neighbourhoods, and is encouraged by the existence of local community facilities, a sense of local identity and opportunities for community participation. Overall, levels of community cohesion in the study corridor are generally likely to be healthy, but are expected to vary across the study area.

Residents in the study area have good access to a diverse range of local community facilities, such as education, sport and recreation, open space and community services. The study area also has a number of important community networks related to local churches, sporting clubs and cultural facilities, which foster relationships and trust. In addition, the study area also host a large number of community festivals and sporting events, such as Holroyd CityFest, Auburn Festival and Strathfield Spring Festival, which provide opportunities to involve the local community and celebrate the study area's cultural diversity.

The study corridor has a relatively mobile population, with lower proportions of people who lived at the same address either 12 months or five years prior to the 2011 Census, compared to NSW. This reflects proximity to local and regional employment centres, such as the Parramatta and Sydney CBDs as well as recent urban developments that have been occurring in the study area. However, some locations in the study area are characterised by more stable communities, demonstrated by lower levels of mobility and higher levels of owner occupiers, indicating a stronger sense of belonging and shared networks which enhance cohesion.

Communities in the study area are also cultural diverse, with high levels of people born overseas and who do not speak English well or at all. Some locations in the study area also display relative levels of socio-economic disadvantage and include high levels of people needing assistance. These groups are likely to be more heavily dependent on personal community and social networks.

Natural environment

The study area generally includes limited areas of natural environment. Key natural feature of the study area are Duck River, which crosses the M4 Motorway corridor east of the Sydney Speedway at Clyde and meets with the Parramatta River west of the Silverwater Bridge at Silverwater.

The catchment for Duck River is highly urbanised, with main land uses including industrial, residential, commercial and recreational. The catchment contains a number of major land uses including the Sydney Olympic Park, Shell Oil Refinery, Clyde Railway Yards, Rosehill Gardens Racecourse, Potts Hill Reservoir, Rookwood Necropolis, Royal Australian Air Force base and numerous golf courses. The catchment also includes the largest remnant of Cumberland Plain Woodland located within Millennium Parklands, which forms part of the Newington Nature Reserve.

Relatively little remnant vegetation exists in the catchment. As such, that which does remain is likely to be important to local communities, with a number of Bushcare groups established to secure the future of endangered ecological communities found within the catchment. These include Friends of Duck River, Mighty Duck River Restoration Collective and Prince of Duck River (www.sydney.cma.nsw.gov.au).

The area around Duck River is also important to local Aboriginal groups and is a place where traditionally sea people met forest people and exchanges took place. A number of socially significant Aboriginal sites are located around the area of Duck River (Aboriginal History and Culture of the Auburn LGA).

Haslams Creek also crosses the M4 Motorway corridor, west of Hill Road. The creek flows via a channel system from the M4 Motorway to Hill Road, where it forms a natural channel flowing through Sydney Olympic Park, joining Parramatta River at Homebush Bay. The catchment is highly urbanised with a large percentage of industry operating throughout the catchment (www.auburn.nsw.gov.au).

Air quality in the study area is generally influenced by wider regional impacts, although locally by areas of major industrial uses and major transport corridors, including road and rail. Concerns were raised by some community members during consultation for the project about existing high levels of air and noise pollution in the study area from major transport corridors, impacting on the amenity of local residential areas.

The existing M4 Motorway corridor contains areas of established vegetation, including at Granville and Auburn. This provides a buffer between the motorway and surrounding areas and provides a visual screen of the motorway from nearby residential areas. As such, it is likely to be valued by local residents and the loss of this buffer would be a concern.

5.5 Social infrastructure

The study area accommodates a wide range of community services and facilities that cater for the needs of both local and regional communities, including education facilities; health, medical and emergency services; sport, recreation and leisure facilities; and community and cultural facilities.

Education

The study area provides a wide range of education facilities including early childhood, primary, secondary and tertiary level education facilities.

Major education facilities located in or near to the study area include:

- Australian Catholic University at Strathfield.
- University of Western Sydney at Parramatta (Rydalmere).
- TAFE Campuses at Granville, Lidcombe and Strathfield.
- The University of Sydney Health Sciences Campus at Lidcombe.
- Australian College of Physical Education at Sydney Olympic Park.
- Catholic Institute of Sydney for Theology and Ministry at Strathfield.

These facilities cater for students within the study area as well as those from across the wider Sydney region and beyond.

In addition, the local study area includes a large number of government and non-government schools and kindergartens that cater for the needs of students in the wider study area.

Health, medical and emergency services

A number of major hospitals and facilities offering health and emergency services to communities in the study area, greater Western Sydney and/ or NSW are located in or near to the study area. These include:

- Westmead Public Hospital and Westmead Children's Hospital at Hawkesbury Road, Westmead.
- Westmead Private Hospital at Darcy Road, Westmead.
- Cumberland Hospital at Westmead.
- Westmead Rehabilitation Hospital at Coleman Street, Merrylands.
- Strathfield Private Hospital at Everton Road, Strathfield
- Auburn Public Hospital at Hargrave Road, Auburn.
- St Joseph's Hospital at Normanby Road, Auburn.

A range of community health centres are also located across the study area LGAs that provide a range of health and medical services, including general community health, mental health, drug and alcohol, aboriginal health, child and family health programs.

The study area also provides a range of emergency services, including fire, ambulance and police services. Those located in the local study area include:

- NSW Rural Fire Service Head Quarters – State Operations Centre, located on Carter Street in Homebush Bay.
- Fire services, including:
 - Silverwater Fire Station at Stubbs Street, Auburn.
 - Parramatta Fire Station at Wigram Street, Parramatta.
 - Merrylands Fire Station at Merrylands Road, Merrylands.
 - Lidcombe Fire Station at Church Street, Lidcombe.
 - Concord Fire Station at Concord Road, Strathfield.
- Police services, including
 - Holroyd Local Area Command Police Centre at Memorial Avenue, Merrylands.
 - Parramatta Local Area Command Police Centre at Marsden Street, Parramatta.
 - Rosehill Local Area Command Police Centre at Carlton Street, Granville.
 - Flemington Local Area Command Police Centre at the corner of Queen and Susan Streets, Auburn.
 - Burwood Local Area Command Police Centre at Belmore Street, Strathfield.
 - Police stations at Merrylands, Granville, Auburn and Strathfield.
- NSW Ambulance stations at Auburn and Parramatta.

Sport, recreation and leisure facilities

The study area includes a number of regional and State level sport, recreation and leisure facilities that cater for communities in the study area as well as the greater Western Sydney and wider Sydney regions.

The Sydney Olympic Park is a key focus of sport, recreation and leisure facilities for communities across the greater Sydney area. The Park provides a number of local, regional and international level facilities such as the State Sports centre, Sydney Olympic Park Tennis Centre, Athletics Centres, Allphones Arena, ANZ stadium and

the Sydney Showgrounds. It also provides a wide range of informal recreational uses such as walking and cycling trails, picnic areas and parks, including Bicentennial Park, Newington Armory, Blaxland Riverside Park and Wentworth Common. Each year, the Park hosts more than 5,000 events, including major events such as:

- The Sydney Royal Easter Show in March/ April, attracting about 900,000 people annually.
- Major sporting events, including rugby union, rugby league, AFL and cricket at ANZ Stadium, which has a total capacity of 83,500 people.
- Sydney International, which is held in January each year at the Sydney Olympic Park Tennis Centre.
- Music festivals, including the Big Day Out in January.
- Concerts and entertainment events at the Allphones Arena, which has a capacity for about 21,000 people.

Other major sporting venues in or near to the study area include:

- Sydney Speedway at Wentworth Road, Auburn, which hosts weekly car racing events, including national and international Sprintcar events. The facility has a capacity for up to 5,000 people.
- Rosehill Gardens Racecourse at James Ruse Drive, Rosehill, which holds about 33 horse races annually, including key racing events such as the Golden Slipper Festival (in April) and the Spring Racing Carnival (in October/ November). The racecourse also hosts other major events such as the NSW Caravan, Camping, 4WD and Holiday Supershow in April each year, attracting about 80,000 people, as well as a large number of smaller events.
- Sydney Motorsports Park at Eastern Creek, which hosts regular motor racing events, including annual V8 Supercar events, as well as concerts and festivals.

The study area also includes numerous large parks providing both formal and informal recreational activities for local and regional communities. Examples include:

- Parramatta Park, located near to the Parramatta CBD.
- Holroyd Sports Centre, which hosts the area's Little Athletics Club.
- Holroyd Gardens Park.
- Merrylands Park.
- Auburn Parkland, which includes the Auburn Botanic Gardens, playing fields, Oriole Stadium and various reserves.
- Millennium Parklands and Bicentennial Park.

Sport, recreation and leisure activities located in the local study area include:

- Local parks and outdoor recreation facilities, including:
 - Deakin and Hume Parks, located at Homebush Bay.
 - Wentworth and Bill Boyce Reserves, located at Homebush.
 - Kurung and Warawara Reserves, located in Merrylands and Parramatta respectively.
 - FS Garside Park at Granville.
 - Lidcombe Oval and Velodrome at Church Street, Lidcombe.
- Public swimming centres, located at Granville, Parramatta, Merrylands, Lidcombe and Sydney Olympic Park.
- Skate parks in Parramatta and Granville.
- The M4 Motorway cycleway, which links Auburn, Granville, Holroyd and Parramatta CBD via Good Street in Parramatta.

Community and cultural facilities

The study area offers a wide range of community and cultural facilities, including museums and community halls as well as churches, temples and places of worship. In particular, the study area includes a high number of religious and cultural facilities that attract residents from local communities as well as from across the greater Western Sydney region.

Key community and cultural facilities in the region include:

- The Parramatta Heritage and Visitors Centre at Church Street, Parramatta, which provides information of the region's Indigenous, colonial and multicultural heritage.
- Parramatta Town Hall at Church Street, Parramatta.
- Granville Town Hall at Carlton Street, Granville.
- Hindu Council of Australia at The Crescent in Homebush, which is an umbrella organisation for the purpose of bringing together various Hindu Associations across Australia.
- Granville Youth and Community Centre at Memorial Drive, Granville, which offers a variety of programs and activities for local communities.
- Sydney Children's Museum at Pitt Street in Merrylands, which offers a series of activities for children.
- Elizabeth Farm at Alice Street in Parramatta, which is Australia's oldest surviving homestead and now functions as a museum and art exhibition space.
- Old School House Museum at Macquarie Street, Parramatta, which showcases information and objects relating to early public schooling in NSW.

A wide range of community and cultural facilities are located in the local study area. These include:

- West Sydney Chinese Christian Church at Homebush Road, Strathfield.
- Auburn Gallipoli Mosque at Gelibolu Parade, Auburn.
- Merrylands Samoan Assembly of God at Willara Avenue, Merrylands.
- Basilio Scientific School at Church Street, Lidcombe.
- Bukhari House Mosque at Beatrice Street, Auburn.
- Auburn Youth Centre at Harrow Road, Auburn
- St. John of God's Catholic Church at Alice Street, Auburn.
- Berea Holy Joy Church at George Street, Granville.
- BAPS Shri Swaminarayan Mandir at Eleanor Street, Parramatta.
- Anglican Church Sydney Diocese at Jamieson Street, Granville.
- Sydney Korean Catholic Church at Carnarvon Street, Homebush Bay.
- Ukrainian Catholic Church at Church Street, Lidcombe.
- Sri Karphaga Vinayakar Community Hall at The Crescent, Homebush.
- Orthodox Church of Archangel Michael at Wentworth Road, Homebush Bay.
- Libraries at Parramatta, Merrylands, Granville, Auburn, and Strathfield.

5.5.1 Social infrastructure near the project

A number of social infrastructure facilities are located near to the project that may experience impacts from the construction and/or operation of the project, either directly or indirectly. These are listed in **Table 5-13** and shown in **Figure 5-3 (A-C)**.

Table 5-13 Social infrastructure near the project works

Location	Facility	Address	Type
Pitt Street to Deniehy Street	Holroyd Sportsground	Peel Street, Merrylands	Sport and recreation
	Kurung Reserve	Robert Street, Merrylands	Parkland
	Warawara Reserve	Junction Street, Parramatta	Parkland
	Twinklestar Child Care Centre	Good Street, Granville	Childcare
	Alfred Street Child Care Centre	Alfred Street, Granville	Childcare
	Salvation Army	Good Street, Granville	Cultural
	FS Garside Park	Alfred Street, Granville	Sport and recreation
	Sydney Speedway	Wentworth Street, Clyde	Sport and recreation
Deniehy Street to Junction Road	M4 Motorway cycleway	Under Duck River viaduct, Auburn	Sport and recreation
Junction Road to Homebush Bay Drive	NSW Rural Fire Service Head Office	Carter Road, Homebush Bay	Emergency services
	Silverwater Fire Station	Cnr Adderley Street West and Stubbs Street, Auburn	Emergency services
	Auburn North Public School	Adderley Street West, Auburn	School
	Revival Christian Church ACC	Adderley Street West, Auburn	Community facility
	Deakin Park	Beaconsfield Street, Silverwater	Parkland



WestConnex M4 Widening Socio-economic Assessment - Social Infrastructure near the Project

FIGURE 5-3



LEGEND

- M4 Widening project
- Western Motorway
- Major Road
- + + + Railway
- SA2 Boundary

Social Infrastructure

- ▲ Community Facility
- ▲ Education Facility
- ▲ Health Facility
- ▲ Emergency Service
- ▲ Recreation

Imagery Source:
Esri, DigitalGlobe, GeoEye, i-cubed, USDA,
USGS, AEX, Getmapping, Aerogrid, IGN, IGP,
swisstopo, and the GIS User Community

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WestConnex M4 Widening Socio-economic Assessment - Social Infrastructure near the Project - Map A

FIGURE 5-3A



LEGEND

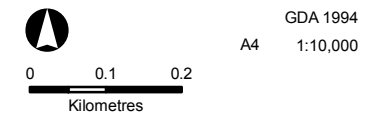
- M4 Widening project
- Western Motorway
- Major Road
- + Railway
- SA2 Boundary

Social Infrastructure

- ▲ Community Facility
- ▲ Education Facility
- ▲ Health Facility
- ▲ Emergency Service
- ▲ Recreation

Imagery Source:
Esri, DigitalGlobe, GeoEye, i-cubed, USDA,
USGS, AEX, Getmapping, Aerogrid, IGN, IGP,
swisstopo, and the GIS User Community

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WestConnex M4 Widening Socio-economic Assessment - Social Infrastructure near the Project - Map B

FIGURE 5-3B



LEGEND

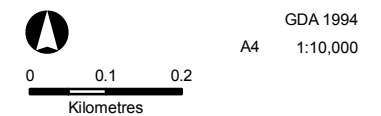
- M4 Widening project
- Western Motorway
- Major Road
- + + + Railway
- SA2 Boundary

Social Infrastructure

- ▲ Community Facility
- ▲ Education Facility
- ▲ Health Facility
- ▲ Emergency Service
- ▲ Recreation

Imagery Source:
Esri, DigitalGlobe, GeoEye, i-cubed, USDA,
USGS, AEX, Getmapping, Aerogrid, IGN, IGP,
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WestConnex M4 Widening Socio-economic Assessment - Social Infrastructure near the Project - Map C

FIGURE 5-3C

5.6 Transport and access

The study area includes several major transport corridors, which provide good connections to other areas of greater Sydney and regional NSW. These include roads, rail and bus corridors, as well as pedestrian and cycle networks.

5.6.1 Transport infrastructure

This section provides an overview of transport infrastructure in the study area. Further detail is also provided in the *WestConnex M4 Widening Traffic and Transport Working Paper – Working Paper 4* (SKM 2014) (Traffic and Transport Working Paper).

Roads

Major east-west road corridors in the study area include:

- The M4 Motorway, which connects the Blue Mountains with Parramatta Road at Strathfield, providing an important connection between the Sydney CBD and western Sydney for residents, business and industry.
- Parramatta Road, which runs parallel to the M4 Motorway, providing an important connection for regional traffic to key destinations and access from the M4 Motorway at Strathfield to Sydney's CBD, inner west and eastern suburbs.
- Great Western Highway, to the east of Church Street and runs parallel to the motorway west of the Parramatta CBD, connecting to Penrith and the Blue Mountains.

Major north-south road corridors in the study area include:

- Pitt Street and Church Street/ Woodville Road, located at the western end of the study area, and connecting to the Parramatta CBD.
- James Ruse Drive, which connects north from Parramatta Road to Victoria Road, Pennants Hills Road and Windsor Road providing access to Rosehill Gardens Racecourse, the University of Western Sydney and the Rosehill/Camellia industrial area.
- Silverwater Road/St Hillier's Road (A6), which connects north from Parramatta Road to Victoria Road and Kissing Point Road, and south to Liverpool Road, provides access to:
 - The Metropolitan Sydney oil pipeline terminal from which, petrol and diesel supplies are distributed to the greater Sydney and regional NSW.
 - Blaxland Riverside Park and Newington Armoury within the Sydney Olympic Park.
 - M5 Motorway south of the study area.
 - Northern suburbs and the M2 and M1 Motorways in the north.
- Homebush Bay Drive (A3), located at the eastern end of the study area, connects north from Parramatta Road to Concord Road at Rhodes and beyond to Macquarie Park, the Upper North Shore and the Northern Beaches, providing access to the Sydney Olympic Park.
- Centenary Drive (A3), which connects to Homebush Bay Drive south of Parramatta Road, providing access to the Sydney Markets at Flemington Markets, Strathfield South industrial area and the M5 Motorway.

The M4 Motorway creates a barrier to local movement and connectivity between communities within the study area located north and south of the motorway. As such, a number of roads in the study area provide important local connections across the corridor, including:

- Coleman Street at Merrylands.
- Good Street, Alfred Street, Wentworth Street, and Deniehy Street at Granville.
- Stubbs Street at Auburn.
- Hill Road and Birnie Avenue at Lidcombe.

The study area also includes a large number of local roads that provide important access and connectivity for residential and commercial areas located north and south of the motorway.

Rail services

The study area includes a number of rail lines catering for both passenger and freight rail services.

Passenger rail services in the study area include both metropolitan services operated by Sydney Trains, as well as regional and interstate services operated by NSW Trains. Passenger rail services within the study area include:

- North Shore, Northern and Western line (T1), which provides access for metropolitan services from the Sydney CBD to Epping and Hornsby, Parramatta, Richmond and Emu Plains, as well as inter-city services to:
 - Lithgow and Bathurst via the Blue Mountains and regional services to Dubbo and Broken Hill.
 - Gosford and Newcastle via the Central Coast and Newcastle Line, as well as regional services to Armidale and Moree, and interstate services to Brisbane via Taree, Wauchope, Grafton and Casino.
- Airport, Inner West and South line (T2), which provides access for metropolitan services from the Sydney CBD to Campbelltown and Macarthur, as well as:
 - Inter-city services to Bowral and Goulbourn via the Southern Highlands Line.
 - Interstate services to Canberra and Melbourne
- Cumberland line (T5), which connects Schofields to Liverpool and Campbelltown via Parramatta.
- Carlingford line (T6), which connects Clyde to Carlingford.
- Olympic Park Line (T7), which includes regular services between Lidcombe and Olympic Park, and services between Central, Blacktown and Olympic Park during special events.

Communities in the study area are serviced by a number of train stations located at:

- Granville, Clyde, Auburn, Lidcombe, Flemington and Homebush south of the motorway.
- Harris Park, Rosehill, Olympic Park and North Strathfield located north of the motorway.

Train stations located closest to the project include Rosehill, Clyde, Granville and Harris Park.

The Northern, Western and South rail lines also accommodate freight rail services with links to the Northern Sydney Freight Line and Chullora/Enfield intermodal terminals.

Bus services

The study area is well serviced by bus services. There are over 50 daytime bus routes around the M4 Motorway corridor between Parramatta and Homebush provided by five separate bus operators. These are provided by a variety of operators including Hillbus, Westbus, Veolia Transport and Sydney Buses.

Bus routes in the study area provide connections to centres, retail and employment areas, residential areas and railway stations. Key bus routes near the project include:

- Routes M91, 806, 804, 810 and 811, which use Church Street at Parramatta.
- Routes 906 and 907, which travel along Good Street at Granville.
- Route 909, which travels via Alfred Street at Granville.
- Route M92, which travels via James Ruse Drive at Granville.
- Routes 540 and 544, which travel via Stubbs Street at Auburn.
- Route 401, which crosses the M4 Motorway at Hill Road, Lidcombe.

There are also five NightRide bus routes that operate along the M4 Motorway corridor, including N70 and N71 which operate between Concord Road and James Ruse Drive. NightRide services generally operate hourly between about midnight and 5.00am.

A number of school bus routes also operate in the study area. These include:

- Route 661, which travels from Homebush Public School to Parramatta Transport Interchange, via Underwood Road.
- Route 625, which travels from Concord High School to Newington via Hill Road.
- Route 689, which travels from Burwood Station to Strathfield Girls High, via Concord Road.

There are a number of bus stops located on local roads across the study area. Roads with bus stops located near the motorway corridor include:

- Coleman Street at Merrylands.
- Pitt Street at Holroyd.
- Alfred Street, Good Street and James Ruse Drive at Granville.
- Adderley Street West and Stubbs Street at Auburn
- Corner of Hill Road and Carter Street at Lidcombe.

Auburn City Council also runs a loop service within the study area for seniors and people with disability. The service operates on Thursday between 10.00am and 4.00pm, and connects to locations across the LGA, including train stations and community facilities. Streets used by the loop service near the project include Stubbs Street at Auburn and Hill Road at Homebush Bay.

Walking and cycling

The study area includes a number of pedestrian and cyclist facilities, including both off-road and on-road cycle paths. A bicycle path parallel to the M4 Motorway is located between the Cumberland Highway at Greystanes and Haslams Creek at Homebush Bay. The path includes sections of dedicated off-road bicycle path, shared pedestrian and cycle path and the motorway shoulder.

From Ledger Road at Merrylands, the path follows the southern edge of the M4 Motorway, crossing the railway line south of Harris Park Station. Between the railway crossing and James Ruse Drive, the shared path is located beneath the M4 Motorway viaduct. East of James Ruse Drive, the path is located next to the M4 Motorway before joining separated paths at Martha Street; Adderley Street West/East. The shared path network turns north at Haslams Creek. There is no shared path network between Haslams Creek and Concord Road.

At the western end, access to the Parramatta CBD is provided via Good Street or Mays Hill. At the eastern end, the bicycle path links with the Louise Sauvage pathway at Sydney Olympic Park, which provides a north-south link between the Parramatta River and the M4 Motorway.

The Bay to Bay bicycle path (otherwise known as Cooks River cycle path) starts north of Bicentennial Park and proceeds south-east to Kyeemagh at Botany Bay. The path crosses the motorway via an overpass at Pomeroy Street/Bill Boyce reserve.

A number of pedestrian bridges are also located in the study area that provide pedestrian access across the motorway corridor. These connect from:

- Adderley Street West at Auburn south of the motorway to Melton Street at Silverwater north of the motorway.
- Park Road, Homebush, south of the motorway to Pomeroy Street, Homebush north of the motorway.

Grade separated pedestrian access across the motorway corridor is also provided on footpaths next to local and major roads, while shared paths also provide links across the motorway corridor linking:

- Fox Street, Holroyd to the south of the M4 Motorway and Railway Street, Granville to the north of the M4 Motorway.
- Adderley Street East, Lidcombe to the south of the M4 Motorway and Haslams Creek to the north of the M4 Motorway.

Cyclists are also permitted to use the shoulders of the M4 Motorway between Silverwater Road and Concord Road and west of Church Street.

5.6.2 Journey to work

The modes of travel used by residents in the study area reflect the area's high level of public transport access, particularly by train, with direct service connections to key employment centres such as the Sydney and Parramatta CBDs.

While private vehicle was the dominant mode of travel to work for residents in the study area, compared to NSW, residents in the study area were more likely to use public transport to work, particularly train. In 2011, about 21.2 per cent of residents in the study area aged 15 years or older used the train only to travel to work, compared to about 6.2 per cent in NSW. Those SA2s with particularly high levels of train commuters included Homebush (at 29.8 per cent), Parramatta (at 26.7 per cent), Lidcombe (at 24.7 per cent) and Strathfield (at 22.8 per cent). This highlights the importance of the rail network for residents in the study area and local residents' accessibility to railway stations.

About 2.2 per cent of people in the study area aged 15 years or older used the bus only to travel to work, below the NSW average at 3.7 per cent. Parramatta had high proportions of people who used the bus to get to work (5.2 per cent), with this the only SA2 area within the study area that had levels of bus commuters above NSW as a whole. Merrylands and Strathfield had proportions of bus commuters above the study area average, at 3.2 per cent and 2.6 per cent respectively.

About 53.0 per cent of residents in the study area travelled to work by car, either as driver or passenger. This is compared to 62.6 per cent in NSW. Homebush Bay and Merrylands were the only SA2 areas with proportions of people who travel to work by car at or above the NSW average.

5.7 Summary of socio-economic environment

The socio-economic conditions in the study area are diverse and varied. The western end of the study area is predominantly residential in nature, comprising low density, suburban neighbourhoods, apart from the Parramatta CBD, which provides a focus of high intensity residential and commercial development. At the eastern end, the study area is characterised by newer medium to high density residential suburbs as well as major regional and state significant land uses such as the Sydney Olympic Park and Sydney Markets. The central section of the study area is characterised by a mix of low, medium and high density residential areas, large areas of commercial and industrial development, and large scale retail uses.

The study area has experienced above average rates of population growth compared to greater Sydney and NSW over recent years, driven by redevelopment of former industrial areas and intensification of housing, which is expected to continue.

Communities in the study area are also diverse displaying high variance in levels of cultural diversity, socio-economic advantage/ disadvantage, age and residential mobility. Overall, communities the study area is characterised by:

- Younger, more transient population in areas such as Parramatta and Homebush, reflecting the recent urban development occurring in these locations, with more stable residential populations in Granville.
- High levels of cultural diversity, with high proportions of people born overseas, high proportions of people who speak a language other than English at home and people who do not speak English well or at all. Areas with particularly high levels of cultural diversity include Auburn, Lidcombe and Parramatta.

- High levels of people with need for assistance with self-help, mobility or communication due to disability, health or old age, particularly in Auburn, Granville and Merrylands.
- Neighbourhoods with very high levels of socio-economic disadvantage, reflecting relatively low levels of income, educational attainment, employment and vehicle ownership, as well as low levels of economic resources, particularly in Auburn, Merrylands, Granville and Lidcombe.
- Relatively low levels of workforce participation and high levels of unemployment, particularly in Auburn and Granville, which are also characterised by very high levels of youth unemployment.

These groups may be more vulnerable to changes from the project, due to such things as communication challenges making access to information about the project more difficult, and access to fewer resources to cope with changes such as relocation or amenity impacts.

In addition, the study area also includes:

- High levels of access to local employment, including in the Parramatta CBD, and commercial and industrial areas located in Auburn, Granville, Homebush and Sydney Olympic Park.
- Large scale commercial and industrial development, which provide goods and services for communities in the study area, as well as those within greater Western Sydney and the wider Sydney region. These include the Sydney Markets, large scale home, furniture and home wares retail, and motor dealerships.
- A wide range of local, regional and state level community services and social infrastructure, including education, sport, recreation and leisure facilities such as the Sydney Olympic Park, parklands, community cultural facilities and health and emergency services, including major hospitals.
- Good access to public transport, particularly rail services, which is reflected in the high level of train travel by residents to access employment.

6. Impact assessment

This section provides an assessment of impacts on the socio-economic environment of the study area from the construction and operation of the M4 Widening project.

6.1 Property impacts

6.1.1 Directly affected properties

Much of the works for the M4 Widening project would occur within existing road corridors. However, total or partial acquisition of some properties would be required for:

- Construction of new structures, including the new viaduct south of the existing motorway between Church Street and Deniehy Street at Granville, and new bridge over Duck River.
- Motorway widening and new ramps at Hill Road.
- Upgrade or widening of existing connections or construction of new connections to the motorway.

Strata acquisition of some properties would also be required where the new viaduct or bridge structures are located over the property. Strata acquisition refers to the acquisition of the airspace above a property (ie for a bridge or viaduct structure) or part of the land below the surface of a property (ie for a tunnel). Apart from one industrial property at Junction Street, properties impacted by strata acquisition are currently owned by (NSW) Roads and Maritime Services (Roads and Maritime) or other State or local government entities. In addition, temporary leases of land would provide for ancillary construction facilities such as compound sites and laydown areas.

Fifteen private properties would be acquired for the project either in total or in part. These include:

- Total acquisition of one privately owned commercial property and one privately owned industrial property for the construction of the viaduct, including siting of viaduct piers.
- Total acquisition of three privately owned residential properties for the construction of the viaduct, including siting of viaduct piers.
- Partial acquisition of one privately owned industrial property for the construction of the viaduct, including siting of viaduct piers, as well as strata acquisition for the operation and maintenance of the viaduct.
- Partial acquisition of seven privately owned commercial properties for the new eastbound on-ramp at Hill Road, Homebush Bay.
- Partial acquisition of two privately owned commercial properties at Parramatta Road, Granville.

The project would also directly impact a number of properties owned by Roads and Maritime or local Councils, including:

- Partial acquisition of an area of vacant land owned by Holroyd City Council at Junction Street, Granville,
- Partial acquisition of a small reserve owned by Auburn City Council at the corner of Hills Street and Carter Street for the new eastbound on-ramp connecting at Hill Road, Homebush Bay.
- Partial acquisition of a property owned by the Sydney Water Corporation, which comprise the A'Becketts Creek Stormwater Channel.
- Partial acquisition of properties owned by RailCorp at Junction Street, Granville.

Properties that form part of the existing road corridor for the M4 Motorway or other Council or Roads and Maritime controlled roads would also be impacted by the Project.

Details of properties to be acquired for the project are outlined in **Table 6-1**.

Table 6-1 Summary of property acquisition

Lot number	Acquisition type	Existing use
Lots 1 and 2 DP 1056064	Total acquisition	Commercial
Lot 101 DP 1077494 and Lot 1 DP 1030856	Partial acquisition	Rail Corridor
Lot 50 DP 632565	Total acquisition	Residential
Lot 60 DP 632569	Total acquisition	Residential
Lot 20 DP 632496	Total acquisition	Residential
Lot 1 DP 1052519	Total acquisition	Industrial
Lots 16 and 22 806495	Partial acquisition	Commercial
Lot 1 DP 1023100	Partial acquisition	Commercial
Lot 1 DP 1083388	Partial acquisition	Industrial
Lot 1 DP 883068	Partial acquisition	Commercial
Lot 47 DP 225351	Partial acquisition	Commercial
Lot 2 DP 560429	Partial acquisition	Commercial
Lot 1 DP 560429	Partial acquisition	Commercial
Lots 43 and 44 DP 225351	Partial acquisition	Commercial
Lot 42 DP 225351	Partial acquisition	Commercial
Lot 41 DP 225351	Partial acquisition	Commercial
Lot 53 DP 825637	Partial acquisition	Vacant
Lot 48 DP 225351	Partial acquisition	Reserve
Lot 1 DP 775425	Partial acquisition	Creek Channel

Temporary leases of land would also be required for 13 additional properties to allow construction of the project. Details of properties to be temporarily leased are outlined in **Table 6-2**.

Table 6-2 Summary of properties subject to temporary leases for construction of the project

Lot number	Type	Existing use
Lot 53 DP 825637	Lease	Vacant
Lot 101 DP 1077494 Lot 1 DP 1030856 Lot 11 DP 836871	Licence	Rail Corridor
Lot 1 DP 1083388 Lot C DP 179389	Partial lease	Industrial
Lot 48 DP 225351	Lease	Reserve
Lot 10 DP 858520	Partial lease	Commercial
Lot 16 DP 806495 Lot 21 DP 806495 Lot 22 DP 806495	Partial lease	Commercial
Lot 1 DP 1023100	Partial lease	Commercial
Lot 12 DP 836871	Partial lease	Commercial
Lot 1 DP 876255	Lease	Commercial

Lot number	Type	Existing use
Lot 1 DP 775425	Lease	Creek channel
Lot 1 DP 840154	Lease	Vacant/temporary storage
Lot 11 DP 1117543 Lot 12 DP 1117543 Lot 1 DP 248869	Lease	Residential
Lot 18 DP 806495 Lot 24 DP 806495 Lot 25 DP 806495	Licence	Creek Channel

Property directly impacted by the project would be acquired by Roads and Maritime. Property acquisition would be undertaken in accordance with the provisions of the (NSW) *Property Acquisition (Just Terms Compensation) Act 1991*.

The WestConnex Delivery Authority (WDA) has commenced consultation with directly affected property owners about the acquisition process. Where possible, properties affected by the project would be purchased under voluntary agreements between Roads and Maritime and property owners. This would help to provide affected property owners and businesses with certainty about future decisions, financial security and business viability. WDA has also commenced discussions with property owners directly affected by temporary leases.

Following construction, land occupied by construction works but not required for the ongoing operation or maintenance of the project would potentially become available for redevelopment, subject to relevant state and local government planning policies.

During consultation for the project, some community members at Granville indicated a desire for remnant land located beneath the new viaduct to be used for community uses, including informal recreation uses such as a skate park or BMX track. The final use of residual land would be subject to discussions between WDA and the relevant local Councils.

6.1.2 Impact of property acquisition

The project would require the total acquisition of about three residential properties and one commercial property at Granville as well as one industrial property at Auburn. Residents and businesses of these properties would need to relocate prior to commencement of construction.

Residents, business owners and employees facing changes such as relocation may experience anxiety and stress about these changes, potentially impacting on health and well-being. Impacts for local businesses are discussed in **section 6.3**.

The relocation of households due to property acquisition may disrupt social networks and community relationships if residents are required to move away from the local area and from existing social and support networks.

The residential properties to be acquired are located in neighbourhoods that demonstrate levels of relative disadvantage, ranking within the third or fourth deciles for the Socio-economic Indices for Areas (SEIFA) advantage/ disadvantage index (refer to **section 5.2.6**). As indicated in **section 5.2** and **section 5.3**, communities in Granville are also characterised by young families with relatively high proportions of children and youth, are culturally diverse, have levels of people who do not speak English well or at all above the study area average, have above average levels of people needing assistance due to disability, health or old age; and have relatively low incomes and high levels of unemployment. As such, these residents are likely to be more heavily dependent on personal community networks and may find it more difficult to cope with or adapt to change. This may impact on their well-being if they are not appropriately supported through the relocation process. These impacts are likely to be significant for the particular individual families and would need to be managed carefully.

However given the small number of residential properties affected, the impacts are not expected to be significant in the context of the project.

Uncertainty about potential property acquisitions and proposed changes and effects of the project has the potential to cause stress and anxiety for some residents, business owners and employees located near the project, potentially impacting on health and well-being and quality of life. This effect is currently being experienced by some people, with concerns raised during consultation for the project about potential property impacts and uncertainty relating to decisions about buying or selling properties and current or future renovations.

6.1.3 Impact on property values

Property values are driven by a range of factors. For example, business property values are generally driven by factors such as access or proximity to markets and products, customer access, and visibility while residential property values are more heavily influenced by liveability as reflected by local amenity and accessibility to employment, transport and social infrastructure.

Uncertainty about the property acquisition process and timing of the proposed works has the potential to impact on property values in areas closest to the project in the short term. On-going communication and consultation being undertaken by WDA with local communities and directly affected property owners about potential property acquisitions and proposed changes would help to reduce uncertainty and raise awareness of the benefits of the project once construction works have been completed.

Changes to local amenity, either during construction or as a result of the motorway moving closer to residential properties and businesses and subsequent changes in traffic noise and the visual environment would also have the potential to impact on property values in some locations. This was raised as an issue by some community members during consultation for the project. A number of mitigation and management measures have been identified to address potential changes to the noise and visual environment and are discussed in the respective impact assessment chapters of the environmental impact statement (EIS).

In the long term, improved access and connectivity provided by the project for businesses and communities, including to the Sydney central business district (CBD), the growth area of Western Sydney, adjacent employment and industrial areas and major community facilities in the region, has the potential for a positive impact on local property values. This was also identified as a benefit of the project by some community members during consultation for the project.

6.2 Population and demography

Project related factors affecting population and demography generally relate to the acquisition of residential properties. As indicated in **section 5.1**, population growth in the study area is also being driven by external factors such as changes in land use and redevelopment of previous industrial land for medium to high density residential development, and intensification of residential densities in existing residential areas. This is reflected in the demographic trends of the study area, which demonstrate a relatively mobile population in some areas that have been the subject of recent major urban developments such as Homebush Bay, Parramatta and Homebush (refer to **section 5.2.1**). By 2031, the population of local government areas (LGAs) in the study area is projected to increase by about 44.0 per cent, largely driven by relatively high levels of growth in the LGAs of Auburn, Strathfield and Parramatta. This is compared to a growth rate of 27.5 per cent for NSW (refer to **section 5.2.1**).

Given the small number of residential properties to be acquired for the project, there are not expected to be any impacts on population and demography relating to property acquisition.

Indirectly, improvements in travel conditions such as travel-time savings and improved road safety are likely to make some areas more accessible and attractive for people looking to relocate to the area. While this change has been occurring and is expected to continue over the longer-term, the project is likely to contribute to the acceleration of redevelopment, locally and regionally. This would contribute to an increased population,

consistent with the goals and objectives of the *Draft Metropolitan Strategy for Sydney to 2031* ((NSW) Planning and Infrastructure 2013)

6.3 Employment, Business and industry

This section provides an assessment of impacts on local and regional employment, business and industry associated with the construction and operation of the M4 Widening project.

6.3.1 Directly affected businesses

The project would require the total or partial acquisition of a number of properties that currently accommodate commercial or industrial uses. These include:

- The total acquisition of two commercial properties at Junction Street, Granville that are currently used for a car wash café and car yard, to allow construction of the viaduct.
- The partial acquisition of an industrial property at Junction Street, Auburn, which is currently used for a concrete batching plant, to allow for the construction of the viaduct, including siting of viaduct piers.
- The partial acquisition of a strip of land at the rear of seven commercial properties at Carter Street, Homebush Bay, to allow for the construction of a new eastbound on-ramp to the motorway from Hill Road.

In addition, the project would also directly impact a property at Martha Street, Clyde, which is owned by Roads and Maritime and currently leased to a business providing motorcycle rider training.

WDA has commenced consultation with directly affected business owners about potential impacts of the project's design and construction on their business as well as possible measures to minimise potential business impacts.

The car wash café, car yard and motorcycle rider training centre would all be required to relocate prior to the start of construction. These businesses generally cater for broader customer catchments and have specific location and siting requirements, which may cause difficulties in finding alternative premises locally. If suitable alternative premises are not able to be found, these businesses may need to cease operations.

A large number of car yards, with both new and used cars, are located in the study area at Church Street and Parramatta Road. A number of other car wash facilities are also located within reasonable distance to Granville. As such, while the potential closure of these businesses is likely to be of concern for the business owners, residents of local and regional communities would have ready access to alternate businesses for these services.

As indicated in **section 5.3.2**, the motorcycle rider training centre is one of about 20 Roads and Maritime accredited rider training facilities across NSW. A further six are located in the greater Sydney region. During consultation for the project, issues were raised about the potential relocation of the facility and the ability to find a suitable alternate location locally. In particular, concerns were identified about potential impacts for local communities if the facility was required to cease operations or relocate away from the local area. This included potential impacts for low income earners, including new migrants in the local area, who were identified during consultation for the project as key users of the facility. It was suggested that a motorcycle licence provides these groups with access to an affordable means of transport, allowing them to access employment and other services. Concerns were raised that the loss of the facility in the local area may make accessing this means of transport more difficult, given the nearest facility is located about 25 kilometres from the study area, providing potential transport challenges to this group.

The acquisition of commercial properties may cause a loss of local employment in Granville, particularly if alternative premises are not able to be found locally. While this would be a concern for employees of affected businesses, this is not expected to be significant in the context of the diversity of employment options available in the study area. In the longer term, improved access and connectivity to and between local centres in the study area provided by the project would allow the redevelopment of local centres and potential for attracting new investment.

The project would require the partial acquisition of an existing concrete batching plant located at Junction Street, Auburn to provide for the placement of viaduct piers. A temporary lease would also be required over part of the property south of the existing motorway to enable the construction of the viaduct and piers. This business is located on land that extends either side of the motorway, with part of the operation located under the existing motorway viaduct. The acquisition and temporary lease of part of the property would require the reconfiguration of the site to allow the on-going operation of the business during construction of the project. The batching plant is part of a network of batching plants owned by the company across greater Sydney. Concerns were raised by the owner during consultation for the project about potential impacts on business operations both locally and across the businesses broader network of batching plant operations, particularly if a suitable site layout is not able to be developed. Careful planning of the works would be required in consultation with the business owner to minimise impacts on the operation of the business.

The acquisition of a strip of land at the rear of seven commercial properties at Carter Street is not expected to impact on the functioning or viability of the businesses operating at these properties.

6.3.2 Potential construction impacts

The M4 Widening Project would impact positively on employment through the creation of direct construction-related employment on the project and indirect employment in businesses and industries that support the construction works.

The construction workforce would include a combination of professional staff, administration staff, supervisors, tradesmen, plant and transport operators, unskilled labour and sub-contractors. It is anticipated that during construction, the project would require up to about 400 construction workers plus professional and administration staff. The actual size of the construction workforce would vary over time, depending on the nature of construction activities.

As indicated in **section 5.3.1**, the study area had relatively high rates of unemployment, particularly youth unemployment. Construction of the project would provide employment and training opportunities for residents in the study area, including young people. This would impact positively on employment in the study area, allowing local residents to gain skills in the construction industry.

During construction, impacts on business and industry in the study area may result from:

- Increased expenditure on local goods and services, resulting in beneficial impacts for local businesses.
- Traffic disruptions and delays due to widening works, construction of the new viaduct and increased construction traffic on local roads.
- Demand for construction worker parking near construction compounds and other work areas.
- Increased noise and dust from construction activities, impacting on business amenity.
- Changes to access for businesses located near surface works, construction compounds and other work areas.

The construction phase is likely to have a positive effect for some local businesses through increased demand for local goods and services. This includes local shops and food outlets near construction works that are likely to benefit from increased business in response to the day-to-day needs of construction workers. Businesses supplying goods and services to construction are also likely to see benefits from increased construction activities locally.

The project would require the temporary closure of some roads for construction works associated with the viaduct, bridge structures and road widening. This includes the temporary full or partial closure of roads that provide important regional access for business and industry as well as local roads that provide access to commercial and industrial areas located in the study area. Roads that would be impacted by construction works, requiring the temporary full closure or partial lane closures may include:

- M4 Motorway including on and off-ramps (partial closure only).
- Church Street at Parramatta.

- James Ruse Drive at Auburn, including James Ruse Drive westbound entry ramp.
- Local roads, including A'Beckett, Alfred and Martha streets at Granville and Wentworth Street and Deniehy Road at Clyde.

Where full-road closures are required, these would be undertaken at off-peak times, including weekends or night-time, which would assist in minimising impacts on local access.

Impact on regional roads may cause temporary disruptions for the movement of regional freight and commercial traffic, resulting in potential delays and increased travel times for some businesses. As indicated in **section 5.3.2**, the study area includes a number of major distribution hubs, such as the Sydney Markets and Metropolitan Sydney Oil Pipeline Terminal, which distribute supplies to greater Sydney and regional NSW. Any delays or a disruption to the movement of freight vehicles is likely to be of particular concern for operators of these facilities, given their proximity to the project works.

Delays and disruptions may also be experienced by workers and customers, resulting in longer travel times and potential for increased stress levels for some workers. In particular, Parramatta Road at Auburn includes a number of large scale retail uses. Consultation for this assessment suggested that these businesses cater for a large catchment area, with some customers travelling from regional centres over two hours away. The Paddy's Markets near the intersection of Parramatta Road and Homebush Bay Drive also attract customers from across the greater Sydney area. Increases in travel times for customers caused by traffic disruptions during project construction may deter some customers from visiting these businesses. This is likely to be of concern for business owners, if customers decide to access these services elsewhere.

Temporary closure of local roads servicing commercial and industrial areas may also impact on transport and access to local businesses, including for customers and deliveries to/ from local businesses. In particular, the temporary closure of Wentworth Street, may impact on access to commercial and industrial uses located north of the motorway at Wentworth Street, Kay Street and Unwin Street. However, alternative access is available for these businesses via Grand Avenue and Colquhoun Street to the north.

The temporary closure of Deniehy Street at Auburn may also impact on access to the small group of commercial and industrial uses located in Deniehy and Tennyson Streets. Access to this area is constrained due to Duck Creek to the north and east and the Sydney Speedway to the west, with Deniehy Street providing the only access into and out of this area. However, it is proposed that the closure would be limited to a Sunday, which would assist in minimising impacts on businesses in this area. Careful planning would be required of works in this location to ensure that access is maintained or that any closures to Deniehy Street are appropriately timed to minimise impacts on local businesses.

During construction, demand for on-street parking by construction workers near to the construction compounds and other work areas, may impact on the availability of on-street parking for workers and customers of nearby businesses. Incidental observations made during a site visit for the socio-economic assessment indicated that availability of on-street parking may be an existing issue for some industrial and commercial areas in the study area, with a large number of vehicles currently parking on local streets. This included Martha Street at Granville, Adderley Street West at Auburn and Carter Street at Homebush Bay. This was also raised during consultation for this assessment. Off-street parking for workers is provided within the construction compounds or at other sites near the construction compounds, which would assist in minimising demand for on-street parking. Impacts of worker parking, including proposed management measures are discussed in the Traffic and Transport Working Paper.

Impacts on amenity may be experienced by businesses near construction compounds and construction works due to increased dust, construction noise and construction traffic. The effects of this impact would depend on such things as the nature and type of business, but could include impacts on employee productivity and ability to interact with customers and changes to the general ambience.

In particular, the study area includes a number of car yards located near to the proposed construction compounds and work areas at Church Street and Parramatta Road and include large outdoor display areas. While these businesses are currently subject to high traffic noise levels and road traffic that impact on business amenity, noise associated with some construction activities (ie construction of piles, etc), may impact on the

ability to interact with customers at those businesses nearest to the proposed works. Potential dust from nearby construction activities are also likely to be a concern for these businesses, potentially requiring an increase in the frequency that cars are required to be cleaned.

6.3.3 Potential impacts during operation

Regionally, the project would have positive impacts for local and regional business and industry through improved access and connectivity, including to the Sydney CBD, the growth area of Western Sydney and the revitalisation of the Parramatta Road corridor, and adjacent industrial and commercial areas. Particularly, the project would provide benefits for business and industry through travel time savings and improved travel time reliability, including for freight, heavy vehicles and employees, and savings in transportation and vehicle operating costs.

The M4 Widening project would provide improved travel times for freight vehicles using the M4 Motorway in line with the improvement in operational performance of the motorway and contributes to the overall benefit once the remaining sections of the WestConnex scheme are operational. However, the reintroduction of the toll as part of the project causes a redistribution of some heavy vehicles to Parramatta Road and other roads. Freight traffic on these roads increases relative to the do minimum scenario.

The M4 Widening project would specifically give improved freight efficiency to the Chullora and Enfield intermodal sites south of the project with more capacity in the corridor to accommodate road trips to/ from the rail terminal. The upgrade of the M4 Motorway interchange with Homebush Bay Drive would also improve traffic flow on the A3, which links the M4 and M5 motorways and forms part of Sydney's primary road freight network.

Locally, the project would improve access to/ from business and industry located in the study area, including for customers and employees. The project would also improve access and connectivity to and between local centres located to the north and south of the motorway, allowing for the renewal of local centres and potential for attracting new investment.

In the short-term, the project is expected to increase traffic volumes of Parramatta Road, which may impact on the business environment and access to businesses on this road and adjoining areas. However, in the longer term, with the construction of other stages of WestConnex, the project is expected to provide opportunities to improve the commercial and business environment in some locations, such as Parramatta Road, through the reduction in surface traffic. This would provide opportunities for new investment and diversification of commercial uses along this corridor.

Potential impacts on access and connectivity for business and industry is discussed further in the Traffic and Transport Working Paper.

Impacts on amenity may be experienced by some businesses located closest to the widened motorway through increased traffic noise. Impacts on local amenity are further discussed in **section 6.6**.

6.4 Social infrastructure

Overall, the project would improve access to local and regional level social infrastructure in the study area for local communities as well as communities in greater Western Sydney and the wider Sydney region, through travel time savings and improved travel reliability. This includes:

- Major medical and health care facilities such as the Westmead Hospital in Parramatta LGA.
- Sport, recreation and leisure facilities such as the Sydney Olympic Park, Sydney Speedway and Rosehill Gardens Racecourse.
- Education facilities such as the University of Western Sydney and the Australian Catholic University in Strathfield.

However, community services and facilities located closest to the project may experience impacts during construction and operation which are described in the following sections.

6.4.1 Potential construction impacts

During construction, the project has the potential to impact either directly or indirectly on social infrastructure, including through:

- Increased noise, dust and construction traffic, impacting on amenity for users and workers of community services and facilities.
- Changes in local access and traffic disruptions and delays due to widening works, construction of the new viaduct and increased construction traffic on local roads.
- Demand for construction worker parking near to construction compounds and other work areas.

Construction of the project would also impact on pedestrian and cycle networks in the study area, including changes to pedestrian access near construction compounds and work areas and temporary closure or changes to cycle networks. These impacts are discussed in **section 6.7**.

Impacts on amenity may be experienced by community services and facilities located close to construction compounds and work areas due to increased noise and dust from construction activities and increased construction traffic, including heavy vehicles.

Construction works associated with the viaduct at Granville may also impact on amenity for the TwinkleStar Childcare Centre located on Good Street and Alfred Street Childcare Centre located on Alfred Street, due to increase noise from construction traffic using these roads, including heavy vehicles. If unmanaged, the use of these roads to access construction compounds and work areas may present a safety risk for children accessing these centres. This is likely to be of particular concern for parents during drop-off and pick-up times (ie 7.30am-9.30am and 4.00pm-6.00pm weekdays).

While the distance from the child care centres to the work areas is likely to minimise impacts associated with dust from construction activities, consultation for this assessment identified that any increase in dust from construction may be a concern for children who suffer asthma and other similar conditions.

Impacts on amenity may also be experienced by users of community facilities at Adderley Street West, Auburn, including Auburn North Public School and Revival Christian Church. In particular, impacts may be experienced from increased noise and dust associated with construction works within the motorway corridor, including for the widening of the westbound on-ramp from Silverwater Road. This includes impacts from increased construction traffic using Adderley Street to access work areas.

During construction, changes in local access and increases in construction traffic, including heavy vehicles, may impact on access to social infrastructure located near to construction compounds and work areas. This includes both regional and local level community services and facilities, such as:

- Childcare centres at Good Street and Alfred Street at Granville.
- Rosehill Gardens Racecourse, due to the temporary closure of Wentworth Street for the construction of the viaduct and upgrade works associated with entry and exit ramps to James Ruse Drive.
- Sydney Speedway, due to the temporary closure of Wentworth Street and Deniehy Street for construction of the viaduct.
- Silverwater Fire Station, located at the intersection of Adderley Street West and Stubbs Road, due to works associated with the widening of the motorway.
- Auburn North Public School and the Revival Christian Church ACC located on Adderley Street West, Auburn due to works associated with the widening of the Silverwater Road westbound on-ramp.
- Sport, recreation and leisure facilities located at Sydney Olympic Park, due to widening works on the M4 Motorway, upgrade works for the Homebush Bay Drive westbound on-ramp, and construction of the new eastbound on-ramp at Hill Road.

Demand from construction workers for parking near to construction compounds and other work areas may impact on parking for users of nearby community facilities. Incidental observations made during a site visit for

this assessment indicate a high demand for on-street parking in many streets near proposed works. Availability of existing parking and potential for the project to further limit this was also raised by some managers of community facilities during consultation. Off-street parking for workers is provided within the construction compounds or at other sites near the construction compounds, which would assist in minimising demand for on-street parking.

Other community services and facilities located close to proposed works that may be potentially impacted by increased demand for parking by workers include:

- Childcare centres at Good Street and Alfred Street at Granville,
- Auburn North Public School at Adderley Street West, Auburn.

The implementation of environmental and traffic management measures at work areas and early and on-going consultation with managers of social infrastructure in the vicinity of construction works, would assist in managing impacts for users of these facilities.

6.4.2 Potential impacts during operation

In the longer term, the project would improve access and connectivity to community services and facilities within the study area for local residents and communities in the greater Sydney region, through travel time savings and improved travel time reliability. This would have a positive impact for these facilities. Improved access to the inner city and the Sydney CBD would also provide benefits for communities in the study area in relation to access to community services and facilities in these locations.

However, impacts may be experienced by users of some social infrastructure located near the project, through changes in local amenity and traffic volumes on surface roads.

Some facilities located near to the motorway such as Auburn North Public School and the Revival Christian Church may be subject to changes in traffic noise from the widened motorway. Widening of the motorway in this location may also require the removal of existing established trees and vegetation in the motorway corridor. This is likely to reduce the visual screening of the motorway in these locations, increasing visibility of motorway traffic from these facilities. This may increase community perceptions about impacts of traffic noise.

During consultation for the project, some community members at Granville indicated a desire for remnant land located beneath the new viaduct to be used for community uses, such as informal recreation uses such as a skate park or BMX track. This would provide a positive impact on local sport and recreation facilities in this area, particularly for youth. However, the final use of residual land would be subject to discussions between WDA and the relevant local Councils.

6.5 Community values

This section assesses potential impacts on community values in the study area, including those associated with amenity and character, community cohesion and liveability and the natural environment.

6.5.1 Potential construction impacts

During construction, impacts on community values may be experienced due to:

- Noise and dust from construction activities for residents and businesses near to construction compounds and surface works, impacting on local amenity.
- Temporary changes to local access and connectivity.
- Impacts on community cohesion due to property acquisition for the project.
- Possible disturbance to the natural environment and community environmental values particularly associated with construction works near Duck River.

Impacts on local amenity are discussed in **section 6.6**, changes to local access and connectivity are discussed in **section 6.7** and impacts of property acquisition are discussed in **section 6.1.2**.

A new bridge structure would be required to be constructed over Duck River at Auburn. This would impact on the environment of Duck River, including through the possible removal of vegetation. As discussed in **section 5.4**, the catchment includes little remaining areas of remnant vegetation and a number of Bushcare groups currently operate within the Duck River catchment. This area also provides important amenity and landscape values for users of the cycleway under the M4 Motorway, helping to screen users from surrounding industrial development. As such, any loss of vegetation is likely to be of concern for local communities and users of the cycleway.

The placement of piers and construction activities would be sited to minimise the loss of vegetation in this area. Rehabilitation of the area of the River impacted by construction activities would be undertaken following construction. This would provide an opportunity to improve the amenity and landscape value of this section of Duck River. Consultation with Bushcare groups would be undertaken following construction about the rehabilitation of this area of Duck River.

6.5.2 Potential impacts during operation

Overall, the project would improve liveability and amenity for residents and businesses within the study area and region, by improving travel and accessibility to work, business and leisure. At a regional level, improved access for regional travel and travel time savings is likely to provide benefits for community cohesion. Travel facilitates social interactions and economic transactions across the wider region. Where mobility on major routes is constrained by traffic congestion, people avoid making trips that have unacceptable travel times. The project would assist in decreasing travel times for these trips, helping to facilitate community interaction.

Concerns were raised during consultation for the project about the potential for noise levels and air pollution to increase for communities nearest to the project, further impacting on amenity in the study area. These impacts are discussed in the relevant air quality and noise technical reports.

The project would require the removal of existing established vegetation at Granville and Auburn. This vegetation provides an important visual buffer for surrounding residents, reducing the visual impacts and visibility of the motorway, and helping to reduce community perceptions about traffic noise. Impacts associated with the removal of this vegetation are discussed in **section 6.6.2**.

6.6 Local amenity

The amenity of the study area is currently characterised by the study area's mix of residential, commercial and industrial uses as well as large scale community uses. However, amenity in the study area is currently impacted by the existence of transport infrastructure, including major road and rail corridors.

6.6.1 Potential construction impacts

During construction, impacts on amenity within the study area are likely to result from:

- Noise and dust from construction activities for residents and businesses located near to construction compounds and construction works.
- Changes in visual amenity due to the viaduct structure and the removal of established vegetation within the motorway corridor and proposed construction compound sites.

Noise from construction activities, including construction traffic, is likely to impact on amenity of residential communities located close to the project works. This would include impacts from works undertaken outside of standard day-time work hours, such as works associated with the construction of the viaduct over north-south roads and rail corridors, and reconfiguration of existing motorway lanes. These works are required to be undertaken at night or on weekends to minimise disruption to local and regional road networks and rail services. Noise and lighting from these works may impact on the night-time amenity or sleeping patterns for some residents closest to the construction activities.

Increased dust from construction activities is also likely to impact on local amenity, particularly for residential uses located near to construction compounds. Residential areas that may experience changes to local amenity as a result of construction activities include:

- High Street at Parramatta, located near the proposed construction compound at Junction Street, and which may be impacted by works at the construction compound as well as night-time works associated with the construction of the viaduct over Church Street.
- Good Street, A'Beckett Street, Alfred Street, and Onslow Street at Granville, from construction compounds at A'Beckett and Alfred Streets and the construction of the viaduct structure and night-time works associated with the reconfiguration of existing motorway lanes.
- Residential areas located north of the motorway between Stubbs Street and Haslams Creek at Silverwater, due to night-time works associated with the reconfiguration of existing motorway lanes and works on the bridge structure over Silverwater Road.
- Adderley Street West in Auburn, due to works associated with the construction of the Silverwater Road westbound on-ramp, and night-time construction activities.

The implementation of environmental management measures at construction compounds and work areas would help to manage potential noise and dust impacts for surrounding areas. On-going consultation and communication with communities closest to the construction works would be required during the construction phase to maximise the success of the mitigation measures. This would be particularly important for residents of properties where works are proposed to be undertaken during night-time hours.

The removal of established vegetation within the construction compounds may also change the visual environment for users of nearby properties. This includes the removal of established vegetation in the existing road corridor of the M4 Motorway at Adderley Street and adjacent to the westbound on-ramp at Homebush Bay Drive. Where possible, layout of construction compounds would be designed to minimise potential clearing of vegetation. Further assessment of potential impacts from construction activities on the visual and landscape environment is provided in the Visual and Landscape Technical Report.

6.6.2 Potential impacts during operation

In the longer term, the project would provide opportunities to improve the urban amenity of some local centres within the study area, through the reduction of traffic, including on Parramatta Road. However, impacts may be experienced for some areas due to increased traffic noise and changes to the visual environment.

In particular, the residential area of Granville located close to the new viaduct structure may experience changes in amenity due to the removal of existing established vegetation within the existing motorway corridor. The viaduct structure would also be moved closer to some residential properties, particularly at Alfred Street, near the corner of Alfred and A'Beckett Streets and Arthur Street.

The removal of existing vegetation would change the visual environment for residents near the new viaduct structure, particularly from residential properties in Harris Street, Albert Street, Prince Street Good Street and A'Beckett Street. The construction of a new viaduct would also change the visual environment for residents of properties in Alfred Street, Gray Street, Onslow Street and Hamilton Street. In particular, without additional planting/ screening, the visibility of the motorway structure and vehicles travelling on the motorway from properties in these streets would increase. Not only would this potentially impact on the visual amenity of the area and resident's potential use and enjoyment of these properties, but would also increase the awareness of the motorway for local residents and people's perceptions of increased traffic noise. Further assessment of potential impacts on visual and landscape impacts is provided in the Visual and Landscape Technical Report.

Changes in local amenity would also be experienced by communities near the project due to increased traffic noise. Noise barriers would be constructed to mitigate traffic noise impacts. The design and placement of noise barriers would need to consider safety for local communities, visual amenity for neighbouring properties and climatic conditions (ie breezes).

6.7 Access and connectivity

Overall, the project would have positive impacts on access for communities, business and industry in the study area and greater Western Sydney, through improved connectivity, travel time savings and improved travel time reliability. However, temporary impacts on access and connectivity may be experienced during construction for road users, rail passenger and freight services, bus services and pedestrian and cycle networks.

The following provides an overview of potential impacts of the M4 Widening project on access and connectivity. More detailed information is also available in the Traffic and Transport Working Paper.

6.7.1 Potential construction impacts

Potential impacts on local access and connectivity in the study area during construction would result from:

- Traffic disruptions and delays for motorists on both regional and local roads, including from the temporary partial or full-closure of some roads.
- Increased construction traffic, including heavy vehicles, on local roads.
- Changes in road conditions.
- Disruption to passenger and freight rail services from the temporary closure of rail lines.
- Disruption to bus services.
- Changes to pedestrian and cycle access near to construction works, including temporary closure or changes to the cycleway beneath and adjacent to the M4 Motorway corridor, and for cycle access on the M4 Motorway.

During construction, the project would require the temporary partial or full-closure of some roads to allow construction of the viaduct and widening of the existing M4 Motorway. These include main roads such as Church Street and James Ruse Drive. This would cause delays and disruptions for motorists and other road users. Road closures would be for up to about one day at each road and would generally occur over a weekend period, which would assist in minimising impacts on traffic.

No direct impact on private property access is expected during construction. Where temporary road closures are required, suitable access arrangements would be implemented and early notification would be provided to affected communities and businesses about proposed temporary changes.

Changes to speed limits would also be required near construction works to ensure safety of construction works. This is likely to result in delays and disruptions for motorists in the study area as well as motorists from elsewhere who are accessing employment, services and facilities in the study area. Impacts of temporary road closures for local business are discussed in **section 6.3.2** and social infrastructure access is discussed in **section 6.4.1**.

During construction, the project is likely to result in an increase in construction traffic on roads near the project. This would include increases in light vehicles from construction workers as well as heavy vehicles associated with the delivery of materials and equipment. This may impact on safety for other road users, including pedestrians and cyclists. This would be particularly relevant for traffic increases on local streets, which generally have lower traffic volumes. Some of the local streets that are proposed to be used to provide access to construction areas include:

- Junction Street at Parramatta.
- Duke Street, Prince Street and Harris Street at Granville.
- Good Street, A'Beckett Street and Alfred Street at Granville.
- Wentworth Street and Martha Street at Granville.
- Junction Street and Adderley Street West at Auburn.
- Adderley Street East at Auburn.

Good Street, Alfred Street and Adderley Street West accommodate a mix of land uses, including residential and community uses such as child care centres and schools. As such, potential impacts on safety for children from an increase in construction traffic on these roads are likely to be a concern for school communities, child care centres and local residents. This was raised as an issue by community members during consultation for the project.

It is intended that compounds provide adequate parking (or provide alternative transport access to sites) so that there is minimal impact to businesses and local residences along these and other impacted roads during construction.

Changes in road conditions near construction compounds and work areas may also impact on road safety for motorists. Notification of changes to road conditions and screening would be provided for construction works within or near road corridors to minimise safety impacts and distraction for motorists.

Construction of the project would require the temporary closure (track possessions) of some rail lines to allow construction of the viaduct. These include:

- Western rail line, which caters for metropolitan, intercity and interstate passenger services as well as freight services.
- Carlingford rail line, which provides passenger services between Clyde and Carlingford.

The closures are proposed to occur over a weekend period for up to about 24 hours each, and would require a licence for possession of the rail line during these times.

Temporary closure of the rail line would result in disruptions to passenger and freight rail services using these lines, although alternative bus services would be provided for rail passengers over the closure period, which would assist in minimising disruptions for commuters.

As indicated in **section 5.6.2**, passenger rail is an important mode of transport for residents and workers in the study area. Further, households in the study area generally have a lower level of vehicle ownership, with households in Auburn and Strathfield particularly having very high proportions of households without access to a vehicle. Both of these areas would be impacted by temporary closure of the rail network. While alternative bus services would be provided which would minimise potential impacts, impacts may be experienced by some residents and workers due to the temporary disruption to passenger rail services.

Where possible, works would be planned around existing rail maintenance and closure programs, to minimise impacts on rail users. Where this is not possible, works would need to be carefully managed to ensure impacts on the movement of passengers and freight are minimised. WDA would consult with Sydney Trains and communicate with residents and businesses of the study area about potential changes or closures to the train network during construction.

During construction, impacts on bus services in the study area may result from delays and disruptions on the wider road network. In addition, changes may be required to local bus services near to construction works. This may include the temporary relocation of some bus stops located close to construction compounds and work areas, as well as delays or changes in local routes due to temporary road closures. Those services that may be impacted by construction works include:

- Routes M91, which uses Church Street at Parramatta.
- Routes 907, which travel along Church Street and Good Street at Granville.
- Route 909, which travels via Alfred Street at Granville.
- Route M92, which travels via James Ruse Drive at Granville.
- Route N70 and N71, which operate along the M4 Motorway.

Early and on-going consultation with bus operators and bus users about changes to local bus routes and bus stops would be undertaken during construction. This would assist in managing potential impacts on commuters.

During construction, impacts on pedestrian and cycle networks would include:

- Changes to the cycle path under the existing M4 Motorway viaduct.
- Temporary closure of the footpath along the northern side of Martha Street at Auburn.
- Changes to pedestrian access near construction compounds and construction works.

Temporary changes or closure of some sections of the cycleway beneath the existing motorway viaduct would be required to accommodate the construction of the new viaduct. This is required for safety of pedestrians and cyclists during construction of the overhead viaduct. Where temporary closure of the cycle path is required, alternative access would be provided where possible to minimise impacts for users of this facility. Where suitable alternative access is not available nearby, early notification (ie signage, newspaper notifications) would be provided about proposed changes to allow users of the cycle path to plan their trips.

Partial possession of the footpath on the northern side of Martha Street would be required for construction of the new viaduct. This would require the temporary partial closure of the footpath. Alternative pedestrian access is available on the southern side of this street, which would minimise impacts for pedestrians in this area.

Temporary changes to pedestrians and cyclists access would be required near to construction compounds and other work areas. Where possible interaction between construction traffic and pedestrians occurs (eg at work site/compound access points) traffic controllers would be used to ensure safety for pedestrians and cyclists. Temporary changes to pedestrian and cycle access would need to be clearly communicated and marked to ensure safety for pedestrians and cyclists. Temporary access would also need to consider the needs of all pedestrians, including children, elderly and people with disability. This would be particularly important near community facilities such as the Westmead Christian Grammar School, child care centres and Auburn North Primary School.

6.7.2 Potential impacts during operation

In the longer term, the project would improve regional access and road connectivity, including to and between the Sydney and Parramatta CBDs, through improved driving conditions, reduced travel times, improved connections to the regional road network and improved road safety.

In the short-term, the project is expected to increase traffic volumes of Parramatta Road, which may impact on access and connectivity to land uses along this corridor. However, in the longer term, with the construction of other stages of WestConnex, the project is expected to reduce traffic volumes and provide opportunities for improved bus transport, and pedestrian and cycle access. In particular, this would provide safer access for pedestrians and assist in reducing barriers to local traffic movements.

The project would not directly impact on access or connectivity to private properties during operation. In addition, impacts are not expected on pedestrian and cycle access as a result of the project's operation. Cyclists would continue to be able to use the shoulders of the M4 Motorway west of Church Street as is the case at present. Motorway ramp bicycle crossings would be provided in accordance with standard motorway design practice.

Existing bus routes, including school bus routes, are generally expected to use existing routes, although some bus operators may modify bus routes or add services in response to the project. Existing bus stops would be maintained, where practicable.

An operational traffic review will be undertaken to confirm the operational traffic impacts of the project on surrounding arterial roads and major intersections 12 months after the commencement of operation of the project, as discussed in section 7.12 of the Traffic and Transport Working Paper (Appendix D of the EIS). Further information on impacts on traffic and transport from the operation of the M4 Widening project is provided in the Traffic and Transport Working Paper.

6.8 Cumulative impacts

Cumulative impacts include the incremental effects of an action when added to other past, present or reasonably foreseeable future actions.

A range of other transport infrastructure and urban development projects have commenced or are soon to commence in or near to the study area. Interaction with these projects may change the social impacts or benefits of the project. Projects relevant to the M4 Widening include:

- Other projects within the wider WestConnex scheme, such as the M4 East (an extension of the M4 Motorway from Homebush Bay Drive to Parramatta Road and the City West Link), M4 South (construction of a further stage from City West Link, Haberfield to St Peters via Camperdown) and M5 (construction of a new link from St Peters to the M5 East, as well as duplication of the M5 East).
- Urban development in the study area, such as the Carter Street Urban Activation Precinct and the Parramatta Road Urban Renewal Program.

Potential impacts on the socio-economic environment would generally relate to the construction phase and potential to prolong the duration of construction impacts. This includes impacts such as disruption to traffic and access, including for local residents, commuters and public transport users, impacts on pedestrian and cycle movements, and impacts of construction traffic, including movement of heavy vehicles. Extended periods of construction activity may also impact on amenity for local residents, including through increased noise, dust and traffic.

Mitigation measures would be implemented for each project to manage the impacts of the individual projects. Coordination between the proponents of the various projects in the planning of major works and possible disruptions would assist in minimising potential cumulative impacts.

7. Mitigation

This section outlines a range of measures and safeguards for managing, avoiding or mitigating potential socio-economic impacts and to maximise and enhance the project's benefits.

7.1 Overview

7.1.1 Broad objectives

The broad objectives of the project for managing potential socio-economic impacts during construction and operation are:

- Avoid or minimise impacts on amenity, health, and access and connectivity for local and regional communities.
- Avoid or minimise impacts on social infrastructure.
- Avoid or minimise impacts on industry and local businesses.
- Ensure local communities, including residents, business owners and managers of community facilities are informed about the project's construction and operation.

7.1.2 Community engagement

Community participation in on-going planning, construction, environmental management and monitoring would help to avoid, minimise or manage potential socio-economic impacts of the project.

A *WestConnex M4 Widening Draft Community Consultation Framework* (SMEC 2014) (Draft Community Consultation Framework) has been prepared to guide community engagement during the project's construction phase. The purpose of consultation during the construction phase of the project would be to:

- Manage community and stakeholder expectations as an integral component of the project
- Ensure community and stakeholder participation is used to define issues, identify opportunities and inform relevant aspects of project activities
- Provide open and proactive engagement with and management of stakeholders and the community.

A range of consultation tools and activities would be used to inform local and broader communities of project activities, including timing and duration of construction activities, potential impacts, and proposed mitigation and environmental management measures. These tools and activities would include:

- A dedicated web page on the WestConnex Delivery Authority (WDA) website.
- A 24 hour, free-call, toll free number for on-going enquiries.
- A dedicated email address for email contact.
- Community information sessions at key project milestones to inform stakeholders of the concept design and the issues assessed in the environmental impact statement (EIS0).
- A stakeholder database to capture issues raised by the community and other stakeholders.
- Regular community updates about the project, including during the planning and construction phases, distributed to local communities near the project and to regional communities via the project web page.

A complaints management system consistent with ISO 10002 (formerly AS 4269 Complaints Handling) would also be developed and implemented prior to the commencement of construction activities. The system would be maintained for the duration of construction activities. Details of how to make a complaint or enquiry would be included in all communications materials such as community updates, advertisements and the project website.

Communication for the project would need to consider the high levels of cultural diversity of communities near the project, including the lower levels of English spoken by residents in some areas. This includes considering the need to translate key information into community languages, use of interpreters, and possible use of ethnic newspapers and radio sharing information about the project.

7.2 Pre-construction and design

Recommended strategies to manage potential socio-economic impacts during the pre-construction phase include:

- Undertake early and on-going communication and consultation with property owners, business owners and residents about the property acquisition process, in accordance with the Draft Community Consultation Framework.
- Provide appropriate compensation in accordance with the (NSW) *Land Acquisition (Just Terms Compensation) Act 1991* for properties and businesses directly affected by the project.
- On-going communication and consultation with owners of the motorcycle training centre at Martha Street, about potential project impacts and identify appropriate measures to manage impacts. WDA in consultation with Parramatta City Council would review the potential for relocating the training centre within the same general locality.
- On-going communication and consultation with owners of the concrete batching plant at Junction Street, about potential project impacts and identify appropriate measures to manage impacts. This includes working with the business owners to manage and plan project construction activities and delivery to minimise impacts on their business operations.
- Ongoing communication and consultation with owners of the car-wash and café at Junction Street, Granville about potential impacts of the project and timeframe and process for acquisition.
- Review and consider opportunities to improve local pedestrian and cycle connectivity as part of the project design (eg additional shared cycleway/footpaths under the motorway).
- Provide opportunities for community input to the development of urban design concepts for noise walls, landscaping, and use of remnant land under the viaduct.

7.3 Construction

Recommended strategies to manage potential socio-economic impacts during construction are outlined below.

7.3.1 Business and industry

- On-going communication and consultation, in accordance with the Draft Community Consultation Framework, with local business owners located close to construction works about the timing, duration and likely impact of construction activities and to identify appropriate measures to manage potential impacts. This includes:
 - Consultation with owners of businesses located within the Deniehy Street area north of the motorway, about potential impacts and management of the temporary closure of Deniehy Street.
 - Provision of information on the timing and duration of local road closures at Wentworth Street and Deniehy Street, Granville.
- On-going communication, in accordance with the Draft Community Consultation Framework, with business and industry in the wider study area and greater Sydney region, about changes to access and connectivity during construction and potential for delays and disruptions.

7.3.2 Community values

- Avoid areas of remnant vegetation at Duck River, where possible and reinstate disturbed areas as soon as possible following construction.
- Implement environmental management measures as outlined in the *WestConnex – M4 Widening Noise and Vibration Impact Assessment* (SLR Consulting 2014) (Noise and Vibration Assessment Report) and *WestConnex M4 Widening Air Quality Assessment* (Todoroski Air Sciences 2014) technical reports (ie noise screening, dust control), at construction compound sites to minimise impacts on amenity for users of nearby properties.

7.3.3 Local amenity

- Undertake early and on-going consultation and communication, in accordance with the draft Community Consultation Framework, with residents and local communities potentially impacted by construction works about specific construction activities, including timing, duration and likely impacts. This would be particularly important where works are proposed at night and weekends, outside of standard daytime construction hours.
- Allow for improved lighting under the viaduct to enhance safety in affected areas.
- Ensure site compounds and work areas are adequately fenced to ensure safety to local communities.
- Develop a hoarding strategy that aids in limiting visual impacts during construction.
- Identify locations for site compounds that minimise impacts on the local community, where possible.

7.3.4 Access and connectivity

- Develop and implement traffic management plans, as identified in the Traffic and Transport Working Paper, to assist in minimising traffic disruptions and delays. Amongst other things, this should include:
 - Measures to address safety for children near schools and child-care centres (ie minimising haulage activities near schools during drop-off and pick-up times).
 - Ongoing communication with local communities, including residents and users of community facilities, about access changes and potential disruptions.
- Maintain access to properties near the project during construction. Where temporary changes to property access are required, alternate access should be determined in consultation with affected property owners and tenants.
- Provide parking for workers at construction compounds. Where sufficient space is not available at construction compounds, advise workers of suitable parking arrangements as part of the project induction and encourage workers to use car pooling or public transport,.
- Implement parking management measures in local streets near construction compounds to manage potential impacts from workers parking.
- Communicate changes to public transport services with local communities and commuters travelling to or from the study area.
- Maintain access for pedestrians and cyclists near construction works, including consideration of pedestrian access needs for elderly people, children and people with disability.
- Where possible, access would be maintained along pedestrian and cycle paths, including the cycle way beneath the M4 Motorway and on the M4 Motorway shoulders where it is currently permitted. Where it is not possible to maintain access, inform users about access changes (ie signage, public notices, community updates), including timing and duration.
- Undertake on-going consultation and communication, in accordance with the Draft Community Consultation Framework, with local communities about changes to local pedestrian and cycle access, including through signage, public notices and provision of regular updates to user groups. This would include communication with:

- The Westmead Christian Grammar School community about potential pedestrian and access changes associated with the construction of the Westmead Exit.
- Child care centres at Good Street and Alfred Street, Granville about any changes to pedestrian and cycle access near construction works for the viaduct.
- Auburn North Public School community about any potential changes to access due to works in this area.
- Local bicycle user groups.
- Undertake on-going communication with communities, in accordance with the Draft Community Consultation Framework, in the wider study area and greater Sydney region, about changes to access and connectivity during construction and potential for delays and disruptions to accessing community facilities within the study area, such as the Sydney Olympic Park, Sydney Markets at Flemington, and Rosehill Gardens Racecourse.
- Ensure planning for the temporary full or partial closure of local and regional roads in the study area considers the timing of major events within the study area, including those at Sydney Olympic Park, Rosehill Gardens Racecourse, and Sydney Speedway.

7.4 Operation

Recommended strategies to manage potential socio-economic impacts during operation are outlined below.

7.4.1 Amenity

- Where required, establish noise attenuation measures as identified in the Noise and Vibration Assessment Report, to reduce traffic noise for nearby residents and communities.
- Undertake consultation with local communities about the design and placement of noise attenuation measures adjacent to residential neighbourhoods.
- Where required, provide screening of the motorway for residents and communities, to reduce the visual impacts of the project.
- Undertake consultation with local Bushcare groups operating in the Duck River catchment about the rehabilitation of areas affected by construction works.
- Maintain access for pedestrians and cyclists through the project area.

7.4.2 Access and connectivity

- Communicate with local and regional communities, in accordance with the draft Community Consultation Framework, about potential changes to access and connectivity.

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