

## 7.0 Environmental assessment

### 7.12 Social

This section outlines the potential social impacts associated with the construction and operation of the proposed modification and recommends mitigation measures to address these impacts. A detailed assessment has been undertaken as part of the impact assessment for the proposed modification, which is documented in **Appendix M** (Social impact assessment).

#### 7.12.1 Introduction

Table 7-95 sets out the SEARs relevant to social impacts and identifies where the requirements have been addressed in this section.

**Table 7-95 SEARs – Social**

Desired Performance Outcome	SEAR	Where addressed within the Modification Report
<b>8. Other Issues</b>	<p>1. An assessment of the following issues must be undertaken in accordance with the commitments in Attachment 2 of the Westlink M7 (SSI 663) – Project Modification letter submitted 9 May 2022 (via Major Projects Portal):</p> <ul style="list-style-type: none"> <li>Social</li> </ul> <p><i>Extract from Attachment 2 of the M7 Motorway (SSI 663) – Project Modification letter submitted 9 May 2022:</i></p> <ul style="list-style-type: none"> <li>Assess potential social impacts of the project from the points of view of the affected community/ies and other relevant stakeholders (i.e. how they expect to experience the project).</li> <li>How environmental changes and environmental changes and impacts arising from the construction and operation of the project may affect: <ul style="list-style-type: none"> <li>health and wellbeing</li> <li>people's way of life and livelihoods;</li> <li>surroundings (including natural values) and culture, including the connection and value place on the land by local Aboriginal communities;</li> <li>affected communities, including composition, cohesion and people's sense of place;</li> <li>access to and use of infrastructure, local services, and facilities.</li> </ul> </li> </ul>	<b>Section 7.12.5</b>

#### 7.12.2 Method of assessment

The assessment of social impacts is a key element of environmental impact assessment (EIA) under both Commonwealth and NSW environmental planning legislation, whereby 'environment' is defined to include the social environment.

The Social Impact Assessment (SIA) has been prepared to assess the impacts of the project in accordance with the *Social Impact Assessment Guideline for State Significant Projects* (DPIE, 2021b)

(SIA Guideline). The SIA Guideline seeks to provide a consistent framework and approach to the assessment of social impacts associated with state-significant projects in NSW, and sets out principles to guide an evidence-based approach to the SIA. The SIA Guideline also outlines eight categories in which social impacts can likely be identified. These include: way of life, community, accessibility, culture, health and wellbeing, surroundings, livelihood and decision-making systems. Refer to **Appendix M** (Social impact assessment) for further detail.

The SIA has been prepared to understand the social environment and context within and around the proposed modification's social locality, and to consider its impacts in a broad, inclusive, and culturally sensitive manner. In doing so, the requirements of the SIA Guideline have been closely integrated throughout. The main phases and components of the assessment included:

- **Phase 1 – Scoping and initial assessment:**
  - Defining the social locality of the proposed modification and gaining an understanding of the characteristics of the communities within (refer to **Section 7.12.3**)
  - Undertaking an initial scoping assessment to identify the key social impacts to be considered in the SIA, and the level to which these need to be assessed
- **Phase 2 – Social impact assessment:**
  - Development of a social baseline study to understand the social context of the area without the proposed modification (refer to **Section 7.12.4**)
  - Predicting and analysing potential social impacts and benefits of the proposed modification, informed by SIA-specific consultation and other technical assessments (refer to **Section 7.12.5**)
  - Development of mitigation measures to address residual negative and social impacts, and opportunities to enhance social benefits (refer to **Section 7.12.6**).

The impact assessment has considered the varying demographics, cultural and social groups that exist within the social locality. The impact assessment has been informed by background research and consultation undertaken for the proposed modification. The potential for different groups to experience different impacts has been carefully considered throughout.

### Issues scoped out of the SIA

Given the discrete physical extent of the proposed modification, as well as the existing nature of the operational motorway, the following two categories from the SIA Guideline have been scoped out of the SIA and are therefore not assessed:

- **Culture** – The proposed modification would be primarily constructed within the median of the existing Westlink M7 motorway. This land has been subject to substantial historical disturbance, including extensive earthworks, as part of the construction of the road. The proposed modification is not expected to result in impacts to Aboriginal heritage or non-Aboriginal heritage, providing mitigation measures are implemented (refer to **Section 7.7** (Aboriginal Heritage) and **Section 7.8** (Non-Aboriginal Heritage) respectively).

The Aboriginal heritage assessment was undertaken in consultation with relevant Local Aboriginal Land Councils to inform the assessment, assist in identifying areas of cultural heritage value, and develop mitigation measures. Transport has also undertaken an advertising campaign to engage with the Aboriginal community and gain an understanding of cultural values in the area. Transport will seek to embed these values in the detailed design of the proposed modification. Further information is provided in **Section 6.4.1**.

- **Decision making systems** – a proposed widening of the Westlink M7 was identified as a future option in the approved project. The original design and approval of the road considered future population growth and the potential for additional lanes, public transport facilities or rail within the Westlink M7. Refer to **Chapter 3** (Need for the modification and strategic context) of this report for further detail.

## Community and stakeholder consultation for the SIA

### Residential surveys

Residential surveys were undertaken to better understand the potential social impacts of the proposed modification on community members. Surveys were carried out between 30 May and 12 June 2022, using a stratified random approach where residents were approached randomly door-knocked on selected streets. These streets were reflective of the social locality, which was based on areas the potential for more acute impacts from the proposed modification,

A total of 889 residences were approached, from which 130 residents participated in the survey. An overview of the results of the surveys are included in **Section 7.12.4**, and were taken into account throughout the assessment. Further detail is presented in **Appendix M** (Social impact assessment).

### Business surveys

Surveys were undertaken between 30 May and 12 June 2022, to understand the potential impacts of the proposed modification on local businesses. The operation of local businesses is a key element of sustaining people's livelihoods and way of life, including their capacity to sustain themselves through employment and business. The businesses approached were chosen as they are reliant on the motorway to provide services or transport freight.

A total of 102 businesses were approached to participate in the survey, of which 61 businesses participated. Information gathered by the business surveys was collated, analysed and were taken into account throughout the assessment of social impacts. Further information and survey results are available in **Appendix M** (Social impact assessment).

Note that other consultation undertaken for the proposed modification is described in **Chapter 6** (Consultation).

### Evaluation of the significance of social impacts

The potential likelihood and magnitude of each impact was determined with reference to the SIA Guideline, and the assessment matrix in Table 7-96 was used to determine the significance of each social impact. In determining the magnitude of potential impacts, the dimensions of social impact (i.e. extent, duration, severity or scale, sensitivity or importance, level of concern/interest) have also been taken into consideration.

**Table 7-96 Social impact significance matrix (DPIE, 2021b)**

		Magnitude level				
		Minimal	Minor	Moderate	Major	Transformational
Likelihood	Almost certain	Low	Medium	High	Very High	Very High
	Likely	Low	Medium	High	High	Very High
	Possible	Low	Medium	Medium	High	High
	Unlikely	Low	Low	Medium	Medium	High
	Very unlikely	Low	Low	Low	Medium	Medium

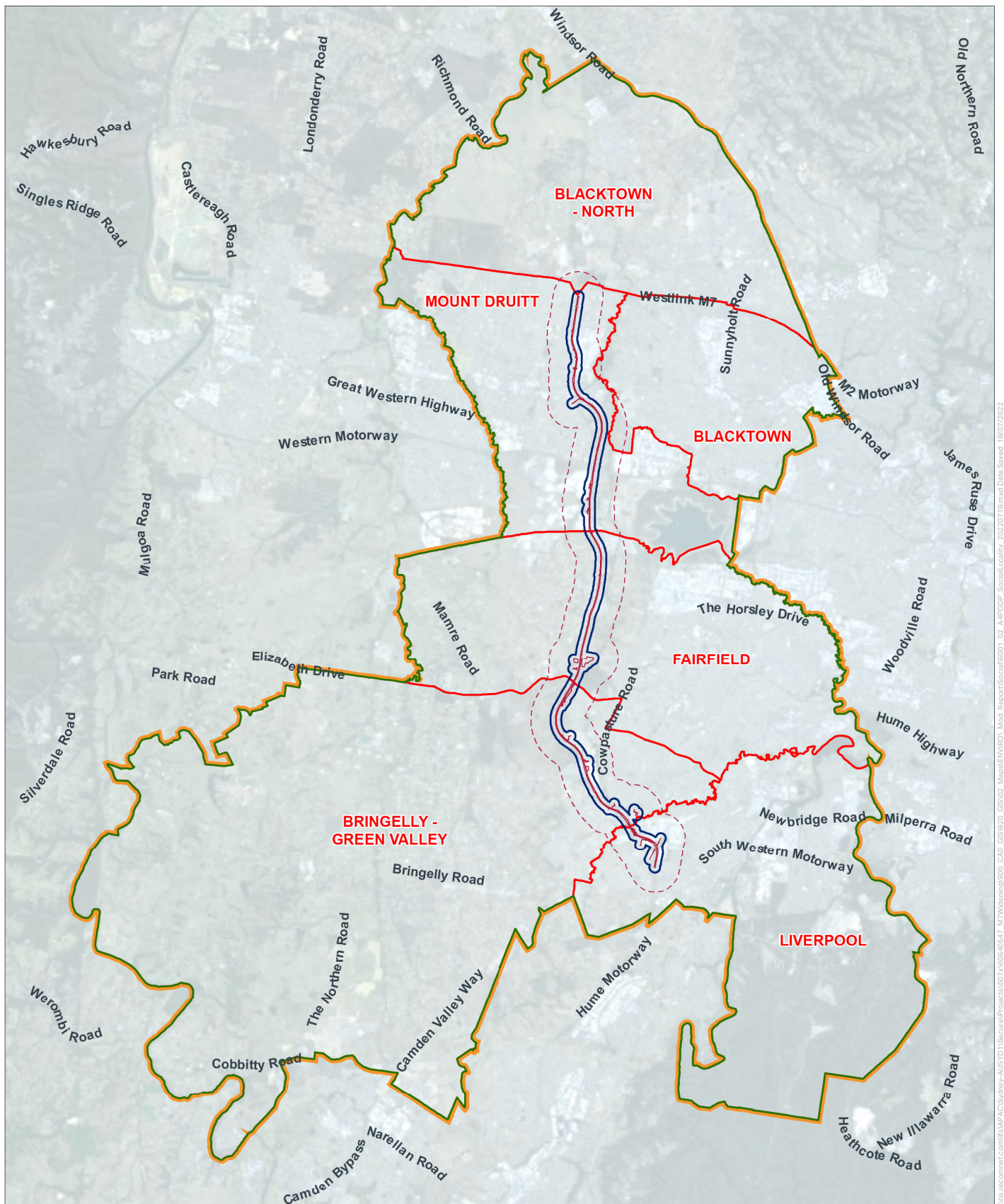
### 7.12.3 Study area (social locality)

The study area for the SIA, hereafter referred to as the 'social locality' in line with the SIA Guidelines, was developed with view to the likely direct and indirect areas of influence associated with the construction and operation of the proposed modification.

To allow the assessment to encompass the communities surrounding the proposed modification at a reasonable scale, the social locality has been identified at the level of Australian Bureau of Statistics (ABS) Statistical Area Level 3 (SA3) across six geographical boundaries, as shown on Figure 7-128.

Demographic data for all six SA3 areas were reviewed for context and compared against that of the social locality, where relevant.

Despite the defined social locality, information related to social infrastructure has been collated from within a one kilometre radius of the proposed modification only. This is due to the limited amenity impacts (such as noise, traffic and air quality) that the proposed modification would have on social infrastructure surrounding the motorway.



**FIGURE 7-128: SOCIAL LOCALITY**

**Legend**

- Construction footprint
- 1km buffer from construction footprint
- Extent of social locality
- Primary impact area
- Secondary impact area
- SA3 outline



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#### 7.12.4 Existing environment

The following section provides a description of the existing environment within the social locality.

##### Strategic framework and social policy

The proposed modification is broadly consistent with a number of Australian and NSW strategic plans for improving transport and connectivity. Key strategies, policies, and plans have also informed and influenced the objectives and design development of the proposed modification. Refer to **Chapter 5** for further details.

The proposed modification is located within three LGAs, each of which have a Community Strategic Plan (CSP) which considers the changing needs for the respective LGA and wholistically sets out the strategic plan for the community into the future. The proposed modification would help achieve some of the goals in each of the strategic plans, including goals related to improving road safety, providing transport networks, improving access, and facilitating local job creation and employment opportunities. Refer to **Appendix M** (Social Impact Assessment) for more detail.

##### Social profile

##### Key demographic data

Key demographic indicators relevant to the proposed modification has been derived from ABS (2016) census data and is provided in **Appendix M** (Social impact assessment). Demographic data for the Greater Sydney metropolitan area and all of NSW is provided to allow for comparison with the selected demographic indicators within the study area.

##### Socio-Economic Indices for Areas

The Socio-Economic Index for Areas (SEIFA) (ABS, 2016) is produced by the ABS as an indicator of relative socio-economic advantage and disadvantage, being people's access to material and social resources, and their ability to participate in society. SEIFA aids in providing an assessment of the welfare of Australian communities and helps in determining and prioritising areas that require funding and services.

The SEIFA publication consists of four indexes, of which, the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) and the Index of Economic Resources (IER) have been used for this assessment. The IRSAD assesses the socio-economic conditions of people and households within an area, including both relative advantage and disadvantage measures. The data for these indexes is only available in LGA data sets, and therefore the three LGAs that the proposed modification is located within have been analysed.

- Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)
  - **Blacktown:** slight relative disadvantage compared to the Australian average for 2016, though higher socio-economic advantage to other LGAs within NSW.
  - **Fairfield:** slight relative disadvantage compared to the Australian average for 2016 and a lower socio-economic advantage to other LGAs within NSW.
  - **Liverpool:** slight relative disadvantage compared to the Australian average for 2016. though a higher socio-economic advantage to other LGAs within NSW.
- Index of Economic Resources (IER)
  - **Blacktown:** close to the 'most advantaged' range
  - **Fairfield:** close to the 'most disadvantaged' range
  - **Liverpool:** close to the 'most advantaged' range.

##### Social infrastructure

Social infrastructure comprises social services or facilities that are used for the physical, social, cultural or intellectual development or welfare of the community, such as educational facilities, hospital and medical facilities, sporting and recreational facilities, community halls, libraries, services, activities, open space and sporting fields.



Social infrastructure facilities generally operate at a local, district and/or regional level and are defined by the scale of the population catchment they serve. Social infrastructure can often be classified as a sensitive receiver and may be directly or indirectly affected by the proposed modification.

Social infrastructure within a one kilometre radius of the construction footprint includes:

- 52 educational facilities
- 17 health, medical, and emergency services (predominantly general practitioners and fire brigade services)
- 4 aged care facilities
- 23 places of worship (predominantly of Christian denomination)
- 13 community service facilities (e.g. neighbourhood or community centres)
- 71 sporting and recreational facilities.

Another social infrastructure element is the Light Horse Sculpture Parade, located at the Westlink M7/M4 Motorway (Light Horse) interchange. This is a war memorial dedicated to those who served in the Australian Light Horse Brigades. The sculpture commemorates a key part of Australian military history and is likely to have social value to people in the broader community. This element has been considered separately from the other elements of social infrastructure due to its central focus within the proposed modification.

### **Economic characteristics**

#### ***Local businesses/ employment centres***

Several local centres and employment hubs are present within the social locality of the proposed modification. These provide employment opportunities for those living within and near the social locality. Employment centres and the suburbs they are located within include the following:

- **Retail and hospitality** – Marsden Park, Liverpool, Leppington, Edmondson Park and Blacktown
- **Industrial** – Erskine Park and Wetherill Park
- **Primary production** – Horsley Park and Kemps Creek.

### **Access and connectivity**

#### ***Road and freight network***

The Westlink M7 is a major road infrastructure corridor on Greater Sydney's orbital motorway network. Greater Sydney's road network carries, and would continue to carry, most of the trips made across Greater Sydney, as identified in the *Future Transport Strategy 2056* (Transport, 2018a). The arterial road network, including the orbital motorway network, provides connectivity between communities and to dispersed employment areas that are more difficult for customers to reach using public transport, walking and cycling. The arterial road network also provides the primary connections to enable road-based freight movements. An efficient road network is therefore critical to ensuring the economic growth of Greater Sydney.

The Westlink M7 has a key role in providing connections to both existing and future transport infrastructure across Greater Sydney. The Westlink M7 connects the M5 South-West Motorway with the M4 Motorway and the Hills M2 Motorway. It is identified as a primary freight route in the Department of Infrastructure, Transport, Regional Development and Communications map of the National Land Transport Network, and is identified in the *NSW Freight and Ports Plan 2018-2023* (Transport, 2018b) as one of Greater Sydney's key freight corridors. The interchanges between the Westlink M7 and other major arterial roads also provide connectivity between Greater Sydney and regional areas. The Westlink M7 would also provide a connection to the approved M12 Motorway, enabling access to planned growth areas in Western Sydney and the future Western Sydney International (Nancy-Bird Walton) Airport (Western Sydney International Airport).

### **Public transport**

There are no known bus routes that utilise the Westlink M7 within the study area and that would be impacted by construction from the proposed modification. Bus routes service the broader social locality, as well as Sydney rail network lines T1, T2 and T5, and may be impacted by construction detour traffic and rail possessions to facilitate work.

### **Active transport**

The Westlink M7 has a dedicated shared path that runs nearly the entire length of the motorway, from Prestons to Baulkham Hills. It runs alongside the Westlink M7 and is separated from road traffic. Cyclists can access the Westlink M7 mainline and ride along the motorway. Other shared paths and footpaths exist in the social locality which connect residential and local centres.

## **Engagement Results**

### **Residential survey**

Residents were asked a number of questions about their daily lives, values, use of the Westlink M7 and how they think the proposed modification would impact them. Table 7-97 presents the top three most frequent responses to the key findings of the relevant answers to the social assessment. The results of the surveys are available in **Appendix M** (Social impact assessment).

**Table 7-97 Resident survey outcomes**

Theme	Top three outcomes of theme
Values	<ul style="list-style-type: none"> <li>• Feeling safe and secure</li> <li>• Sense of community</li> <li>• Parks and landscape features.</li> </ul>
Aspirations for the community	<ul style="list-style-type: none"> <li>• Reduction of congestion</li> <li>• Better services for children and/or elderly people</li> <li>• Lower crime and improve safety in their community.</li> </ul>
Construction impacts for resident's day to day life	<ul style="list-style-type: none"> <li>• Traffic</li> <li>• No impact</li> <li>• Noise.</li> </ul>
Construction impacts for resident's community	<ul style="list-style-type: none"> <li>• Traffic</li> <li>• Noise</li> <li>• No impact.</li> </ul>
Management measures residents would like during construction	<ul style="list-style-type: none"> <li>• Traffic and congestion</li> <li>• Noise impacts</li> <li>• Clear and frequent communication</li> </ul>
Operation impacts for resident's day to day life	<ul style="list-style-type: none"> <li>• Improve traffic</li> <li>• No impact</li> <li>• Unsure.</li> </ul>
Operation impacts for resident's community	<ul style="list-style-type: none"> <li>• Improve traffic</li> <li>• No impact</li> <li>• Noise impacts.</li> </ul>
Management measures residents would like during operation	<ul style="list-style-type: none"> <li>• Traffic and congestion</li> <li>• Noise impacts</li> <li>• Air quality.</li> </ul>

### **Business survey**

Businesses were asked how they think the proposed modification may benefit and affect them during construction and operation. Table 7-98 presents the top three most frequent responses. The results of the surveys are available in **Appendix M** (Social impact assessment).



**Table 7-98 Business survey outcomes**

	Top three outcomes
Construction benefits anticipated	<ul style="list-style-type: none"> <li>• No benefits</li> <li>• Spend by construction workers on their business</li> <li>• Employment opportunities for their business.</li> </ul>
Construction impacts anticipated	<ul style="list-style-type: none"> <li>• Congestion and slower travel times</li> <li>• Changes in access to their business</li> <li>• Reduce customer accessibility to their business.</li> </ul>
Operation benefits anticipated	<ul style="list-style-type: none"> <li>• Less congestion and faster travel times for workers and freight</li> <li>• Increase reach of staff through improved transport accessibility</li> <li>• Improve customer accessibility to their business.</li> </ul>
Operation impacts anticipated	<ul style="list-style-type: none"> <li>• No negative impacts</li> <li>• Congestion and slower travel times</li> <li>• Noise from traffic.</li> </ul>

### 7.12.5 Impact assessment

#### Construction

##### Way of life

The ability to move around their local community and across the wider region is important to the maintenance of people's livelihoods and way of life. This includes access to work, study, friends, relatives, shopping, health services, sporting facilities and social activities.

The impacts that may result in potential disruptions to people's way of life include:

- Changes traffic conditions, such as changes to travel time and detours
- Change in access arrangements for motorists, pedestrians and cyclists
- Leasing of land for construction ancillary facilities.

Traffic impacts would be managed through the application of mitigation measures outlined in **Section 7.1**, as well as the development of a Construction Traffic and Access Management Plan to guide the delivery of the proposed modification. These would seek to reduce traffic impacts (and subsequently social impacts) through measures such as construction timing and staging.

Leasing land from landowners for construction ancillary facilities would result in a temporary loss of land for its existing use. Whilst all proposed construction support sites are currently vacant of industry, businesses, or residences, those located upon land within the Western Sydney Parklands and Hoxton Park Reserve would reduce the availability of this area for recreational uses. This impact would be minimised through the placement of these facilities on the edges of the fields and reserves, hence avoiding impacts to areas subject to more intense recreational use. The use of this land for this purpose would not alter the long-term land use, refer to **Section 7.9** for further detail.

Overall, the likelihood of these impacts occurring would be almost certain. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to way of life would be high negative impact.

#### Community

The results of the community surveys highlighted the values of the community (refer to **Section 7.12.4**). The values of a community contribute directly to their sense of place and belonging. These values can change over time due to numerous internal or external influences, including changes in amenity or access, amongst others.

The proposed modification would result in minor changes to local amenity. These changes may result in decreased feelings of safety or changes to the sense of community. This could be due to increases

noise levels, dust, reduced sightlines as result of construction hoarding. Changes in access can also potentially affect people's utilisation of social infrastructure, such as community halls where social events or community information sessions are held which give opportunities for residents to connect with their community. The visual impacts from construction ancillary facilities and detours would affect landscape features in which residents of the community value.

The cohesion of the community refers to the connections and relationships between individuals and their neighbourhoods. The existing motorway acts as a physical and psychological barrier between communities in the social locality, which may reduce the capacity for community cohesion, including social and economic interaction. Vulnerable groups in the community may have an increased sensitivity to the change in access which may lead to a degree of self-exclusion from the community.

Impacts to portions of the M4 Light Horse Interchange sculpture parade artwork has the potential to impact on motorists and special community interest groups, and Transport has initiated consultation with these key stakeholders to involve them in the design development and broader community education for the modified artwork.

Overall, the likelihood of these impacts occurring would be possible. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to community would be a medium negative impact

### **Accessibility**

Construction of the proposed modification has the potential to result in impacts to access and connectivity of the road network, public transport, active transport, social infrastructure and utilities.

Lane closures, detours and an increase in construction traffic would decrease road network performance and add traffic volumes to surrounding roads in the social locality.

The proposed modification would not require any changes to existing public transport corridors intersecting with the Westlink M7. Private and charter buses would continue to be able to access and use the Westlink M7. Impacts to public bus routes would largely result from the temporary increase in traffic on nearby roads when temporary road closures or detours are in place along Westlink M7. Several rail possessions would be required. The temporary closure of rail services would affect those utilising the T1 Western line services. Changes to the provision of rail services during non-scheduled rail shutdowns and the potential addition of temporary bus stops is likely to cause travel disruptions, increase travel times, affect accessibility due to changed travel routes, and create additional walking times. The rail possessions would likely be undertaken during scheduled possessions, and would be of short duration and managed to minimise impacts on the rail network and commuters.

During construction, changes to sections of the existing cycle and pedestrian network (such as detours) of between 300 metres and 1.3 kilometres are required, and cyclists would be prohibited along the mainline of the Westlink M7 and would only be required to use the shared path. Depending on the length and terrain of alternative routes, people may be more inclined to take a shorter, less safe option, rather than diverting around the recommended detour route. Changes to the shared path could cause travel disruptions, increase travel durations, decrease safety, deter the use of active transport options and affect movement patterns and accessibility if not managed appropriately.

Construction of the proposed modification may temporarily affect people's ability to use and access social infrastructure. This may include changes to access, or changes in the surrounding amenity (such as noise, vibration and dust). The change in access may deter people from utilising social infrastructure, therefore potentially impacting their mental and physical wellbeing.

Residents and businesses are dependent on public utilities, particularly the supply of electricity, telecommunications and water, to conduct a wide variety of daily activities. The disruption of these services, could include temporary loss of operation of business-critical machinery or equipment, impacts upon residential household routines or interruptions to classes at education facilities. Utility disruptions, in particular to telecommunications infrastructure, also have the potential to impact upon people's digital access (i.e. the ability to access digital content such as the internet). This would affect the residents that rely on utilities who stay at home, work or study from home, or for the operation of business equipment. Such disruptions would be planned and notified to affected users in advance, and their duration would be kept to an absolute minimum.

The changes in accessibility may disproportionately affect people from non-English speaking backgrounds, as they may have difficulty understanding notification of disruptions and changes and signposted diversion routes.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be minor. As such the overall social significance in relation to accessibility would be a medium negative impact

### ***Health and wellbeing***

Impacts to the health and wellbeing of people who live, visit and work in the social locality may arise from direct and/or indirect impacts during construction. Direct impacts are changes to air quality and noise, while indirect impacts can be an increase in stress and anxiety associated with changes to amenity and access.

Key aspects of the proposed modification that may affect community health and wellbeing during construction includes air quality, noise, access, traffic and transport, increased stress levels and social exclusion. Changes in air quality, noise and access arrangements could exacerbate physical health issues, such as respiratory issues, affect sleep patterns, and limit the ability to exercise, due to the changes in access to the Westlink M7 shared path and Western Sydney Parklands.

The construction works could lead to mental health issues by inducing stress and anxiety due to loss of sense of place or amenity impacts. The changes in amenity can affect the ability for people to sleep or could change the way residents feel about their community, this can impact their sense of place and belonging to the area. Changes in access can impact those in a vulnerable group as they may exclude themselves from the community, affecting their mental health.

The construction of the proposed modification would occur progressively along the M7 Westlink, this would limit the construction impacts in given communities that may be affected. Additionally, during the residential survey, when asked how residents think that the construction of the proposed modification would affect them, 18 per cent responded that they do not think it would impact them.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to health and wellbeing impacts would be a high negative impact.

### ***Surroundings***

Amenity refers to the quality of a place, its appearance, feel and sound, and the way its community experiences the place. Amenity contributes to a community's identity and its sense of place. Impacts upon amenity include traffic, noise, vibration, changes to views or changes to air quality. Changes in amenity may conflict with community values, contributing to a loss of or change in a community's sense of place, and subsequently a community's perceived identity.

Exposure to noise and vibration has the potential to contribute to a range of impacts to people's work, recreation, social and home lives. Increased levels of noise and vibration would be generated during construction of the proposed modification (see **Section 7.2**). High noise levels can interfere with daily activities or the enjoyment of these activities and affect concentration and memory, particularly with regard to business activity that depends on quiet environments. High levels or certain types of disruptive noise may also result in disruption of sleep and rest patterns and may create or exacerbate health concerns such as hearing impairments and cardiovascular health (elevated blood pressure).

During construction, activities such as earthworks and the use of construction machinery have the capacity to generate dust and exhaust emissions (see **Section 7.3**). Nuisance dust has the potential to affect nearby residents and sensitive receivers, such as those with respiratory illnesses. The perceived impact to air quality as a result of construction activities can also affect residents and visitors to the area by increasing anxiety and reducing their capacity to enjoy the local environment. Receivers in the Primary impact area are likely to be most affected by these impacts.

Construction of the proposed modification would result in visual impacts (see **Section 7.10**). The main receptors would be passing traffic, recreational users of the Westlink M7 shared path and residents next to the motorway and construction ancillary facilities. Visual impacts would arise primarily from the presence of construction ancillary facilities, construction activity, equipment, workers and

plant/machinery. Whilst this would not necessarily prevent people carrying on their day to day activity it may affect their enjoyment of their private spaces and potentially lead to a degree of stress or anxiety.

The presence of construction sites may result in changes to perceptions of safety in an area. This may include changes to local sight lines, restrictions in pedestrian traffic reducing passive surveillance, the provision of new surfaces for graffiti, or the attraction of thieves to construction facilities.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to surroundings would be a high negative impact.

### **Livelihoods**

Construction activities can benefit the local economy with associated economic stimulus from increased expenditure at businesses through purchases made by construction workers, and employment and expenditure through the provision of goods and services required for construction.

Employment opportunities would arise through labour for trades people, and business opportunities could be from supplying materials or renting construction equipment. The construction of the proposed modification would contribute to the financial livelihoods for people involved in the construction. See **Section 4.3.15** for the anticipated workforce required for construction of the proposed modification.

Construction can also negatively affect the livelihoods of those who live near or run a business near the motorway. Noise levels would disrupt focus and business practices. While utility disruptions would impact electrical or digital connection which would be essential to the running of some businesses and those who work remotely. Refer to **Section 7.2** and **Section 4.3.8** for noise assessment and utility disruptions respectively.

Tolls would continue to be charged throughout construction. On the Westlink M7, motorists pay based on the distanced travel with trips capped once 20 kilometres has been travelled. The toll arrangements are the same prior to construction, therefore having a neutral impact on livelihoods.

Overall, construction of the proposed modification may result in both positive and negative impacts on people's livelihoods. Accounting for the factors above the overall likelihood of impacts occurring would be likely. The magnitude of positive impacts is considered to be minor, with the magnitude of adverse impacts to livelihoods also being minor. On this basis the net magnitude is considered to be neutral, resulting in an overall social significance of a low positive impact.

### **Operation**

#### **Way of life**

The operation of the proposed modification would, by design, reduce congestion and improve the flow of traffic along the widened section of the Westlink M7. These benefits would be also expected to extend, to some degree, to nearby local roads that connect at or near interchanges, which would be expected to operate more efficiently in most cases. This would provide clear benefits for people who rely upon the motorway for connecting them to work, study, family, friends and shopping along the alignment. The improvement in this ability to move around the local and regional area would be a clear social benefit of the proposed modification.

During operation, cycling would be prohibited for safety reasons on the shoulder of the Westlink M7. Cyclists would instead be required to use the existing shared path. Whilst this may reduce the efficiency of journeys for some cyclists, it would improve their safety, and the overall impact would be limited given the low numbers of cyclists who currently use the motorway.

Overall, the likelihood of these impacts occurring would be almost certain. The magnitude of this effect is considered to have a major positive social impact from congestion reduction and a minor adverse impact due to cycling prohibition. As such the overall social significance in relation to the way people move would be a high positive impact.

### **Community**

The results of the surveys (refer **Appendix M** (Social impact assessment)) highlighted the following aspirations that may be affected by the operation of the proposed modification:

- Decrease in congestion

- Improve employment opportunities
- Improve public transport.

As discussed above, the proposed modification would introduce an additional lane in each direction which would lead to the decrease in congestion along the widened section. Refer to **Section 7.1** for more details.

The proposed modification could assist in the improvement of employment opportunities through better access to employment and for freight. The improvement of access and decrease in congestion would allow for employees to move about with greater ease and for supplies and products to be moved with fewer delays. This would have a flow on positive impact of lowering labour and fuel costs for employees, businesses and ultimately consumers.

The improvement in traffic conditions and accessibility could lead to better connectivity between people and social infrastructure within the social locality. This would be expected to result in a subsequent improvement in community cohesion, with flow on effects for health and wellbeing.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to community would be a high positive impact.

### **Accessibility**

The network performance of and access to the widened section of the Westlink M7 would substantially improve due to the proposed modification. There would be positive flow on social benefits that would arise from improvements in accessibility, as it could lead to increased community cohesion, sense of place and health and wellbeing through improved access to social infrastructure. Additionally this could improve livelihoods through decrease in costs to businesses.

The expected reduction in congestion on the widened section of the Westlink M7 would reduce travel times for public and private bus services. This would also improve reliability, and reduce stress resulting in a benefit to businesses and residents in the social locality.

No operational changes are proposed to the location or alignment of the Westlink M7 shared path. However, cycling on the shoulder of the shoulder of the Westlink M7 would be prohibited between the M5 Motorway and Richmond Road. Cyclists would instead be required to use the existing shared path.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be major. As such the overall social significance in relation to accessibility would be a high positive impact.

### **Health and wellbeing**

The operation of the proposed modification has the potential to affect health and wellbeing through several factors. This includes changes to noise and vibration, changes to visual amenity, changes to air quality and changes to traffic and accessibility.

The social impacts of these changes, alone or cumulatively, include:

- Decrease cardiovascular health arising from stress, anxiety or annoyance
- Decrease respiratory health
- The placement of real or perceived barriers between people, increasing isolation and reducing sense of community and community cohesion
- Loss of community identity arising from changes to the visual environment
- Beneficial impacts to social connectivity and access to social infrastructure through reduction in congestion on the motorway and surrounding roads.

Overall, operation of the proposed modification may result in both positive and negative impacts on health and wellbeing and the follow on social impacts. Accounting for the factors above, the overall likelihood of impacts occurring would be likely. The magnitude of positive impacts is considered to be minor, with the magnitude of adverse impacts to livelihoods also being minor. On this basis, the overall social significance of health and wellbeing would be neutral.

## **Surroundings**

As outlined above, the proposed modification would result in changes to the amenity of the social locality. The proposed modification would be generally expected to increase accessibility and decrease congestion. The change in traffic and access would allow for motorists to get to their destination safer and more quickly. This may improve community connection, sense of place and lead to decreased levels of stress and anxiety.

The proposed modification may have an adverse visual impact for those living and using social infrastructure close to the Westlink M7, such as the pedestrian and cycling shared path. The proposed modification would increase in visual prominence of architectural elements of the Westlink M7, such as the width of the carriageways and bridges. These elements would be highlighted by the removal of vegetation, particularly trees, as low lying shrubs would be planted to replace the removed trees. Refer to **Section 7.10** for further details.

Air emissions from the mainline are anticipated to slightly increase when the Westlink M7 is operational compared to the existing condition, however would be offset somewhat by reduced traffic on parallel routes. Despite the potential slight increase in air emissions, even without the proposed modification, predicted future roadside concentrations are expected to decrease when compared to existing operations due to improvements in the vehicle fleet across the network. Refer to **Section 7.3** for further details.

Overall, the likelihood of these impacts occurring would be possible. The magnitude of this effect is considered to have a moderate positive social impact from improved access and increase in air quality with a major adverse impact due to a decrease in noise and visual amenity. As such the overall social significance in relation to amenity would be a low negative impact.

## **Livelihoods**

The operational proposed modification would reduce congestion, facilitating improved movement of people getting to work, as well as goods and other services, and for customer access. This would have positive flow on benefits for the cost of goods and labour for individuals and businesses that use the Westlink M7.

Survey results highlighted that a rise in toll price when the construction of the Westlink M7 is complete was a concern for businesses and residents alike. Changes to the tolling arrangements described above are not currently being proposed as a funding source during the operation of the Westlink M7. A range of options for funding the proposed modification are being investigated and would be confirmed once costs are ascertained through a procurement process for delivery of the proposed modification.

Overall, the likelihood of these impacts occurring would be likely. The magnitude of this effect is considered to be moderate. As such the overall social significance in relation to livelihoods would be a high positive impact.

### **7.12.6 Management and mitigation**

The mitigation and management measures for social impacts are described in Table 7-99 have been identified to address the impacts identified as a direct result of the assessment undertaken in this report. These measures will be incorporated into existing environmental management plans where they have not been accounted for already.

The management of other environmental impacts (such as noise and vibration, traffic and other amenity-related impacts) will contribute to the management of social impacts, due to their interrelated nature. Other mitigation measures identified in the modification report which are relevant to the management of potential social impacts include:

- **Section 7.1** which outlines measures regarding traffic and access
- **Section 7.2** which outlines measures regarding noise emissions
- **Section 7.3** which outlines measures regarding air quality emissions
- **Section 7.9** which outlines measures regarding land use and property impacts
- **Section 7.10** which specifically outlines measures regarding impacts to landscape character and visual amenity.



**Table 7-99 Mitigation measures**

Impact	ID	Mitigation and management measure	Responsibility	Timing
Community and Stakeholder Engagement Plan	SE1	A Community and Stakeholder Engagement Plan will be implemented for the proposed modification. The plan will describe where information of the proposed modification is available, will contain a complaints management procedure, and contact details for the person responsible for managing and resolving complaints, and non-English options.	Transport	Prior to construction Construction
Construction workers	SE2	Opportunities to source construction workers from the local community will be investigated.	Transport	Prior to construction