

30 Project justification and conclusion

This chapter presents a justification for the project and a conclusion to the environmental impact statement (EIS). The justification is based on the strategic need for the project and in particular, how it would fulfil the project objectives outlined in **Chapter 3** (Strategic context and project need).

The Secretary of the NSW Department of Planning and Environment (DP&E) has issued environmental assessment requirements for the project. These are referred to as the Secretary's Environmental Assessment Requirements (SEARs). **Table 30-1** sets out these requirements and the associated desired performance outcomes that relate to the justification of the project and where these have been addressed in the EIS.

Table 30-1 SEARs – strategic need and justification for the project

Desired performance outcome	SEARs	Where addressed in the EIS
<p>2. Environmental Impact Statement</p> <p>The project is described in sufficient detail to enable clear understanding that the project has been developed through an iterative process of impact identification and assessment and project refinement to avoid, minimise or offset impacts so that the project, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts.</p>	<p>1. The EIS must include, but not necessarily be limited to, the following:</p>	<p>The project objectives are listed in Chapter 3 and section 30.1.2. A description of how the project would meet the objectives of the overall WestConnex program is provided in Table 30-2.</p>
	<p>(c) a statement of the objective(s) of the project, including how it meets the objectives of the overall WestConnex program;</p>	
	<p>(d) a summary of the strategic need for the project with regard to its State significance and relevant State Government policy;</p>	<p>The need and justification for the project, with regard to its State significance, is discussed in Chapter 3 and section 30.1. State Government policy relevant to the project is discussed in Chapter 2 (Assessment process).</p>
	<p>(g) description of how alternatives to and options within the project were analysed to inform the selection of the preferred alternative/option. The description must contain sufficient detail to enable an understanding of why the preferred alternative to, and options(s) within, the project were selected, including:</p> <ul style="list-style-type: none"> – a justification for the preferred proposal taking into consideration the objects of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act); 	<p>A demonstration of how the project meets the objectives of the EP&A Act is provided in and section 30.1.3.</p>
	<p>(p) statutory context of the project as a whole, including:</p> <ul style="list-style-type: none"> – how the project meets the provisions of the EP&A Act and EP&A Regulation; and – a list of any approvals that must be obtained under any other Act or law before the project may lawfully be carried out. 	<p>Table 30-3 outlines how the project meets the provisions of the EP&A Act and the Environmental Planning and Assessment Regulation 2000 (NSW).</p> <p>A list of approvals required for the project is provided in Chapter 2 (Assessment process).</p>

30.1 Justification

30.1.1 Summary of strategic need and justification

The transport network in Sydney is expected to be put under increasing pressure over the next 20 years. *A Plan for Growing Sydney* (NSW Government 2014) indicated that from 2011 to 2031, Sydney's population is forecast to increase from 4.3 to 5.9 million, which equates to an average of 80,000 additional residents per year. Moreover, by 2036, the number of trips made around Sydney each day is forecast to increase by 31 per cent, from 16 to 21 million vehicle trips. This growth will place increasing pressure on the NSW transport network and the key travel demand corridors connecting regional cities and major centres across the greater Sydney metropolitan area.

The road network in the study area for the traffic and transport assessment currently functions under high levels of traffic demand, which often exceeds the operational capacity, especially citybound during the AM peak period. This includes some of the most highly congested road corridors in Sydney. Major routes in the study area, such as Parramatta Road, City West Link, Victoria Road, Anzac Bridge/Western Distributor, Southern Cross Drive, Princes Highway and King Street experience significant congestion, with resultant increases in travel time and variability, which can cause typical morning and evening peak hours to spread over longer periods.

The current congestion on arterial roads and the missing links in the motorway network impede the efficient flow of traffic to the important economic centres along Sydney's Global Economic Corridor. The project is listed as a 'high priority initiative' in the *Australian Infrastructure Plan: The Infrastructure Priority List* (Infrastructure Australia 2016a). The project is also part of the NSW Government's commitment to deliver WestConnex for Sydney in response to the recommendations from the *State Infrastructure Strategy 2012–2032* (Infrastructure NSW 2012), the *State Infrastructure Strategy Update 2014* (Infrastructure NSW 2014), the *NSW Long Term Transport Master Plan* (Transport for NSW 2012a), the NSW State Priorities announced in September 2015 (NSW Government 2015) and the *NSW Freight and Port Strategy* (Transport for NSW 2013b).

In addition, *A Plan for Growing Sydney* (NSW Government 2014) presents a vision for Sydney as a strong global city and the nation's economic and financial powerhouse. It emphasises the need to improve access to major employment hubs and global gateways. The project, as part of the WestConnex program of works, would aid in the delivery of these strategies and plans as it would:

- Provide a new motorway link between the M4 East at Haberfield and the New M5 at St Peters
- Reduce future traffic volumes on north–south and east–west road corridors, including City West Link and parts of Victoria Road
- Enhance the benefits achieved by the operation of the M4 East and New M5 projects by reducing traffic volumes on Parramatta Road, Southern Cross Drive, the Princes Highway, King Georges Road and the M5 East Motorway
- Enable future opportunities for improved connectivity in Sydney's transport network to be realised by allowing for connections to the proposed future Western Harbour Tunnel and Beaches Link to the north, and the proposed future Sydney Gateway (via the St Peters interchange) and the proposed future F6 Extension (via the New M5) to the south
- Reduce travel times and improve reliability for bus services, business, personal and freight journeys along the Sydney road network
- Improve road safety by reducing traffic congestion on Sydney's arterial roads
- Facilitate opportunities for future urban renewal in precincts adjoining the project, including The Bays Precinct (in accordance with *The Bays Precinct Transformation Plan* (UrbanGrowth NSW 2015)), along Parramatta Road east of Haberfield (in accordance with the *Parramatta Road Corridor Urban Transformation Strategy* (UrbanGrowth NSW 2016a)), and along Victoria Road between Iron Cove Bridge and The Crescent, by reducing surface road traffic on sections of Victoria Road
- Improve community connectivity through new and upgraded active transport links at Rozelle and Lilyfield

- Provide new open space within the Rozelle Rail Yards, the design and landscaping of which would be further developed in consultation with relevant councils, stakeholders and the community to provide beneficial urban design outcomes and local amenity.

As part of the broader WestConnex program of works, the project would support NSW's major sources of economic activity and provide a strategic response to the future transport demands on the already congested road network.

30.1.2 Achieving WestConnex program objectives

The project is needed to contribute to meeting the objectives of the WestConnex program of works as stated in the *WestConnex Updated Strategic Business Case* (Sydney Motorway Corporation 2015a).

As the project is part of the WestConnex program of works, the objectives of the project are consistent with those of WestConnex, as stated in the *WestConnex Updated Strategic Business Case*. **Table 30-2** outlines how the project would meet the broader WestConnex objectives.

Table 30-2 How the project meets the WestConnex program objectives

WestConnex program objectives	How the project meets the WestConnex objectives
Support Sydney's long-term economic growth through improved motorway access and connections linking Sydney's international gateways with western Sydney and places of business across the city.	<p>The project is a critical motorway link that (together with the M4 East and New M5 projects and the proposed future Sydney Gateway project) contributes to connecting western Sydney's population and growth centres with employment and business opportunities in the Sydney CBD and the Sydney Airport and Port Botany precinct.</p> <p>Further detail on the economic impacts and opportunities provided by the project is provided in Chapter 14 (Social and economic) and Appendix P (Technical working paper: Social and economic).</p>
Relieve road congestion so as to improve the speed, reliability and safety of travel on the M4 Motorway, M5 Motorway and Sydney CBD/Sydney Airport/Port Botany corridors, including parallel arterial roads.	<p>The traffic assessment undertaken for the project demonstrates that the project has the potential to reduce vehicle movements on Parramatta Road (east of Haberfield), Victoria Road (east of Iron Cove Bridge), City West Link, King Street, King Georges Road and Sydenham Road.</p> <p>The M4-M5 Link, combined with the proposed future Sydney Gateway, would improve the speed, reliability and safety of travel between Sydney's international gateways (Sydney Airport and Port Botany), western Sydney and places of business across the Sydney region. Further detail on traffic impacts, including improvements to road safety and travel times, is provided in Chapter 8 (Traffic and transport).</p> <p>The road and tunnel design, in conjunction with clear wayfinding (ie navigation signage/roadway markers), would provide a safe, legible and easily navigable series of tunnels that provide a high quality customer experience. The speed limit in the mainline tunnels would be 80 kilometres per hour with provision for variable speed limits to suit changes in travel conditions, and the tunnels would be monitored by video cameras 24 hours a day, seven days a week through the coordinated traffic control room to ensure immediate response to any incidents within the tunnels.</p> <p>Further details of the operation of the motorway are provided in Chapter 5 (Project description). Provision has also been made for Smart (or Managed) Motorway infrastructure in the M4-M5 Link design. A Smart Motorway uses technology to monitor, provide intelligence and control the motorway to ease congestion and keep traffic flowing more effectively.</p>
Cater for the diverse travel demands along these corridors that are best met	<p>The key customers who would benefit from the project include:</p> <ul style="list-style-type: none"> • Highly dispersed and long distance passengers

WestConnex program objectives	How the project meets the WestConnex objectives
by road infrastructure.	<ul style="list-style-type: none"> • Heavy and light freight and commercial services • Businesses whose travel patterns are highly dispersed and diverse. <p>The transport demands of these customers are best served by an efficient motorway connection. The project would meet this WestConnex objective by relieving congestion within and in proximity to the project footprint and facilitating efficient passenger and freight movements through Sydney.</p> <p>The addition of the M4-M5 Link provides a significant overall improvement to network productivity. An overall increase in daily vehicle kilometres travelled (VKT) and a reduction in daily vehicle hours travelled (VHT) on the road network are forecast. This means that more trips could be made or longer distances travelled on the network in a shorter time. The forecast increase in VKT and reduction in VHT is mainly due to traffic using the new motorway, with reductions in daily VKT and VHT forecast on the non-motorway roads.</p> <p>The reduction in traffic demand on the major parallel traffic routes such as the A3 corridor (Centenary Drive/King Georges Road), Sydenham Road and King Street, St Peters is likely to improve speed, journey reliability and safety on these corridors compared to a 'without project' scenario. The project would also provide additional route options along the corridor and therefore increase network resilience in the event of accidents or network disturbances.</p> <p>Further detail is provided in in Chapter 8 (Traffic and transport).</p>
Create opportunities for urban renewal, improved liveability, and public and active transport improvements along and around Parramatta Road.	<p>The urban renewal and active transport improvements associated the project would be created principally within the Rozelle Rail Yards and surrounds. The project would create new open space and active transport links and connect previously disconnected communities on either side.</p> <p>By reducing traffic along Parramatta Road (east of Haberfield) and Victoria Road (east of Iron Cove Bridge), the project would facilitate opportunities for urban renewal and liveability improvements in communities along those road corridors. A reduction in vehicles on those corridors may result in greater safety for cyclists and pedestrians, making these alternative modes of transport more desirable.</p> <p>The Parramatta Road corridor is an important bus route servicing the inner west. As demand for public transport is forecast to grow, the WestConnex program of works has explored opportunities to facilitate the integrated use of public transport options on the road network. The reduction in traffic along sections of Parramatta Road as a result of the project facilitates the opportunity for the future development of on-road public transport improvements as envisaged by the NSW Government.</p> <p>The project also includes the use of land at Annandale, at the junction of Parramatta Road and Pyrmont Bridge Road, as a temporary construction ancillary facility. This location is subject to the <i>Parramatta Road Corridor Urban Transformation Strategy</i> (UrbanGrowth NSW 2016a). This site would be rehabilitated for future redevelopment once construction of the project is complete.</p> <p>A description of the active transport improvements created by the project is provided in Appendix N (Technical working paper: Active transport strategy). An overview of potential land use and property</p>

WestConnex program objectives	How the project meets the WestConnex objectives
	impacts is provided in Chapter 12 (Land use and property).
Enhance the productivity of commercial and freight-generating land uses strategically located near and along transport infrastructure.	<p>By connecting the New M5 and M4 East motorways and providing connections to the proposed future Sydney Gateway, the project would provide improved access for commercial vehicles transporting freight from the Sydney Airport and Port Botany precinct to western Sydney. Reducing travel time may lead to increased business productivity and reduced costs.</p> <p>The project would also contribute to improved profitability for commercial and freight businesses through reduced transport costs, in terms of money and time lost to congestion and fuel consumption. Daily heavy vehicle volumes on Parramatta Road and City West Link are forecast to drop by 40 to 50 per cent, as trucks shift to using the new motorway connection.</p>
Fit within the financial capacity of the State and Federal Governments, in partnership with the private sector.	The project, as part of WestConnex, is being funded by the NSW and Australian governments, as well as private sector debt and equity capital, raised against tolls on completed stages of WestConnex.
Optimise user pays contributions to support funding in a way that is affordable, equitable and fair.	<p>A tolled motorway would facilitate user pays contributions and reduce the overall burden on the wider community in NSW. Inclusion of a toll makes construction of the project affordable and equitable, as the cost is shared between tax payers and individual users of the M4-M5 Link.</p> <p>The project comprises tolled and untolled components. Use of the mainline tunnel and Rozelle interchange for long distance trips would be tolled. Iron Cove Link would remain untolled to provide an alternative for motorists using this section of Victoria Road. After opening in 2023, the project would provide a journey using the M4 Motorway straight through to Anzac Bridge, via the M4-M5 Link, for a toll capped (for the entire WestConnex motorway) at \$8.60 (\$2017). This would provide significant time and cost savings for motorists. Further information on project tolling is provided in Chapter 14 (Social and economic).</p>
Integrate with the preceding and proposed future stages of WestConnex projects without creating significant impacts on the surrounding environment or duplicating any potential issues across the construction periods.	<p>As the project would link the M4 East and New M5 projects, opportunities for minimising impacts at both ends of the project have informed the design development process and high level construction program.</p> <p>The project has been designed to minimise the project footprint and maximise the use of land already disturbed or being used for road infrastructure (such as at Haberfield, the Rozelle Rail Yards and St Peters).</p> <p>The potential impacts from consecutive construction activities across various WestConnex component projects are discussed in Chapter 26 (Cumulative impacts) as these activities affect specific local communities.</p>
Provide the ability for an additional Sydney Harbour tunnel road crossing, the Western Harbour Tunnel and Beaches Link (subject to approval), to connect to WestConnex.	<p>The project scope includes the civil construction of ramps, tunnels and associated infrastructure for connections to the proposed future Western Harbour Tunnel and Beaches Link at the Rozelle interchange. These works include:</p> <ul style="list-style-type: none"> Tunnels that would allow for underground connections between the M4 East and New M5 motorways and the proposed future Western Harbour Tunnel and Beaches Link (via the M4-M5 Link mainline tunnels)

WestConnex program objectives	How the project meets the WestConnex objectives
	<ul style="list-style-type: none"> • Entry and exit ramps extending north from the Rozelle interchange at the Rozelle Rail Yards below ground. This would enable future surface connections between the realigned City West Link/The Crescent intersection and the proposed future Western Harbour Tunnel and Beaches Link tunnels • A ventilation outlet and ancillary facilities for the Western Harbour Tunnel and Beaches Link as part of the Rozelle ventilation facility. <p>Further description of how the project would provide the ability to connect to the proposed future Western Harbour Tunnel and Beaches Link is provided in Chapter 5 (Project description) and Chapter 6 (Construction work).</p>
Support improved connectivity between Sydney, the Sutherland Shire, and the Illawarra, with the ability for the proposed future F6 Extension to connect to WestConnex.	<p>While the project would not directly link to the proposed future F6 Extension, by connecting the Rozelle interchange to the New M5 (which would connect to the F6 Extension), the project would provide a connection between the Sydney CBD and the northern suburbs (via Iron Cove Link and the proposed future Western Harbour Tunnel and Beaches Link) and Sutherland Shire and the Illawarra region.</p> <p>A description of this connectivity and the potential impact on traffic flow is discussed in Chapter 8 (Traffic and transport).</p>

Table 30-3 Meeting the project objectives

M4-M5 Link objectives	How the project meets the objectives
Linking the M4 East and New M5 motorways and enabling their connection to the future proposed Sydney Gateway, so that the further benefits and opportunities of WestConnex can be realised.	<p>The project is a critical motorway link that contributes (together with the M4 East and New M5 projects) to connecting western Sydney's population and growth centres with employment and business opportunities in the Sydney CBD and its international gateways; Sydney Airport and the Port Botany precinct, through a direct connection to the future proposed Sydney Gateway at St Peters.</p> <p>Further detail on the economic impacts and opportunities provided by the project is provided in Chapter 14 (Social and economic) and Appendix P (Technical working paper: Social and economic).</p>
Enable long-term Sydney motorway network development by providing a connection to the proposed future Western Harbour Tunnel and Beaches Link project to the north.	<p>The project would provide a direct underground tunnel connection to the proposed future Western Harbour Tunnel at Rozelle and the New M5 and M4 East via the Inner West subsurface interchange.</p>
Improve traffic conditions on key arterial roads in proximity to the project.	<p>The traffic assessment undertaken for the project demonstrates that the project has the potential to reduce vehicle movements and improve travel times on Parramatta Road (east of Haberfield), Victoria Road (east of Iron Cove Bridge), City West Link, Southern Cross Drive, King Street and the Princes Highway and the A3 corridor.</p> <p>Further detail on traffic impacts, including improvements to road safety and travel times, is provided in Chapter 8 (Traffic and transport) and Appendix H (Technical working paper: Traffic and transport).</p>

M4-M5 Link objectives	How the project meets the objectives
Cater for the diverse travel demands along these corridors that are best met by road infrastructure.	<p>The key customers who would benefit from the project include:</p> <ul style="list-style-type: none"> • Highly dispersed and long distance passengers • Heavy and light freight and commercial services • Businesses whose travel patterns are highly dispersed and diverse. <p>The transport demands of these customers are best served by an efficient motorway connection. The project would meet this WestConnex program and project objective by relieving congestion on parallel arterial corridors and in facilitating efficient passenger and freight movements through Sydney.</p>
Facilitate urban renewal in areas where the project would reduce traffic.	<p>By reducing traffic along Parramatta Road (east of Haberfield) the project would facilitate an opportunity for urban renewal and liveability improvements in communities along the Parramatta Road corridor. A reduction in vehicles on this corridor may result in greater safety for cyclists and pedestrians, making these alternative modes of transport more desirable.</p> <p>The project also includes use of land at Annandale, at the junction of Parramatta Road and Pyrmont Bridge Road, as a temporary construction ancillary facility. This location is subject to the <i>Parramatta Road Corridor Urban Transformation Strategy</i> (UrbanGrowth NSW 2016a). This site would be rehabilitated and made available for future redevelopment once construction of the project is complete. The urban design and landscaping works to be implemented as part of the project within the Rozelle Rail Yards and the Iron Cove Link surface works would assist in creating opportunities for improved connectivity to these possible future urban renewal projects, including improved connectivity and permeability for pedestrians and cyclists to locations such as The Bays Precinct.</p>
Minimise impacts on communities associated with property acquisition of residential properties.	<p>The project has been developed to minimise the need for surface property acquisition by designing the majority of the project to be underground, with ramps connecting to the surface (refer to Chapter 5 (Project description) for further detail). Government-owned land has been used where possible to minimise acquisition of private property. The need to reduce these impacts has been balanced with maximising opportunities for beneficial re-use of the areas required for construction that would be surplus to the operational needs of the project.</p> <p>Notwithstanding this design intent, construction and operation of the project would result in temporary and permanent impacts on property. As at August 2017, the project would require 51 total property acquisitions. Of these properties, 26 are residential, one is mixed use and 24 are commercial or industrial land uses. Property acquisition will continue to be undertaken in accordance with the <i>Land Acquisition Information Guide</i> (Roads and Maritime 2014) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW). Refer to Chapter 12 (Land use and property) for further details of property acquisitions and minimisation of impacts.</p>
Deliver a project with a beneficial urban design outcome.	<p>The project would provide new open space at the Rozelle Rail Yards, and a network of increased pedestrian and cyclist connections, which would provide increased opportunities for the community to meet and interact. The Rozelle Rail Yards currently act as a significant physical barrier between the communities of Annandale, Rozelle and Lilyfield. The project would transform this area into public open space with a network of active transport links, which would improve social cohesion and community connectivity for the communities of Annandale,</p>

M4-M5 Link objectives	How the project meets the objectives
	<p>Rozelle, Lilyfield, Glebe and Balmain.</p> <p>A number of the larger arterial roads, including City West Link, Victoria Road and Parramatta Road are physical and psychological barriers between communities in the study area. The project would reduce this barrier effect by reducing traffic volumes on sections of these roads and increasing and/or improving pedestrian and cyclist networks. The active transport facilities include an upgraded pedestrian footpath and separated cycleway between Springside Street and the Bay Run at Byrnes Street, on the western side of Victoria Road at Rozelle. This connection would assist in improving connectivity along Victoria Road, including connections to King George Park and the Bay Run.</p> <p>Overall, the project is expected to increase community cohesion, which is a positive urban design outcome for a large number of local residents across the study area.</p>

30.1.3 Objectives of the *Environmental Planning and Assessment Act 1979* (NSW)

Table 30-4 Objectives of the *Environmental Planning and Assessment Act 1979* (NSW)

Environmental Planning and Assessment Act 1979 objectives	Comment
<p>To encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, waters, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.</p>	<p>Where possible, the project has been designed to conserve natural and artificial resources. During construction and operation of the project, opportunities would be taken to reduce material use and maximise the use of materials with low embodied environmental impact, where practical. For example:</p> <ul style="list-style-type: none"> • Recycled products would be used during construction of the project to reduce the demand on resources, in instances where the use of such materials is cost and performance competitive • At least 20 per cent of electricity required for construction and at least six per cent of electricity required for operation of the project would be sourced from an accredited GreenPower energy supplier <p>Water efficiency measures would be implemented with a focus on achieving water savings and targeting water recycling and reuse, with a minimum target of five per cent of water (rainwater, stormwater, wastewater, groundwater, tunnel inflow water) proposed to be reused, recycled or reclaimed during operation of the project.</p> <ul style="list-style-type: none"> • The project would seek to reuse or recycle around 95 per cent of uncontaminated spoil generated for beneficial purposes, either within the project or at other locations • At least 80 per cent of construction and demolition waste is anticipated to be reused and/or recycled as part of the project • There would be minimal impact on existing open space and a net improvement as a result of the provision of up to 10 hectares of open space. <p>The improved efficiency of the road network and the predicted travel time savings would result in a reduction in fuel use in the future.</p> <p>Additionally, the project would result in a long-term reduction in greenhouse gas emissions due to the smoother traffic flow and lower gradients that would be provided by the project (refer to Chapter 22</p>

Environmental Planning and Assessment Act 1979 objectives	Comment
	<p>(Greenhouse gas)). The GHG emissions saving for the project of 504,750 t CO₂-e in 2033 would represent around 0.09 per cent of the Australian National inventory for the financial year 2015-2016, and 0.39 per cent of the NSW inventory for 2014. A reduction in emissions contributes to improved sustainability, including minimising the use of resources and supporting inter-generational equity and climate change outcomes.</p> <p>Where reasonable and feasible, the project has been designed to avoid impacts on the natural environment and to minimise the need for land acquisition, as well as impacts on existing development and local communities.</p> <p>The project would provide improved traffic conditions, safety and efficiency on parts of Parramatta Road and Victoria Road, as well as other arterial roads, and would result in improvements to local amenity in terms of noise and vibration, air quality and traffic. Measures would be implemented to ensure that impacts of the project on the natural and built environment are minimised.</p>
<p>To encourage the promotion and coordination of the orderly and economic use and development of land.</p>	<p>The improved efficiency of the road network and the forecast travel time savings would result in economic benefits for NSW.</p> <p>The project has been designed to minimise impacts to the surrounding natural and built environments, and to minimise disruption to existing development patterns. Provision of a mostly underground motorway is an orderly and economic approach to support major planning renewal and growth areas, including The Bays Precinct and precincts in the Parramatta Road corridor.</p> <p>Use of the Rozelle Rail Yards for provision of new open space is consistent with the strategic objectives for the The Bays Precinct, which expressly contemplates use of part of this land for WestConnex purposes. New open space at this location would also provide for improved connectivity and would be coordinated with the development of neighbouring areas which would be developed as part of The Bays Precinct.</p>
<p>To encourage the protection, provision and co-ordination of communication and utility services.</p>	<p>The project has been designed to minimise impacts on communications and utility services, where possible. Utility services would be relocated, adjusted or protected where affected by the construction of the project. Trunk utility works proposed have been assessed in the EIS and works would be subject to the recommended environmental management measures contained in the EIS, as described in the Utilities Management Strategy (Appendix F), which provides the framework for how utility works would be managed, including requirements for environmental constraints analysis and environmental risk assessment to confirm the potential impacts associated with the works.</p> <p>A Utility Coordination Committee would be established to ensure better planning for, and coordination of, individual utility works.</p>

Environmental Planning and Assessment Act 1979 objectives	Comment
To encourage the provision and coordination of community services and facilities.	<p>The mainline tunnels, Rozelle interchange and the location of construction ancillary facilities have been designed and located to minimise direct impacts to community facilities and areas of public open space (refer to Chapter 14 (Social and economic)). The project would enable a net benefit of up to 10 hectares of community open space and active transport links, improving community connectivity and facilities in the Rozelle/Lilyfield area.</p> <p>The planned reduction in trucks and cars travelling longer distances on Parramatta Road would facilitate future urban renewal along the corridor through improved urban amenity and liveability characteristics, supported by improved public transport, active transport such as walking and cycling, and local vehicle travel. The project would enhance the connections between key housing and employment areas.</p>
To encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	<p>The project is located in a highly modified urban area and would not result in the clearing of native vegetation. While construction would not result in the clearing of native vegetation, areas of planted vegetation would be removed. Where impacts are unavoidable, mitigation measures have been proposed to minimise the potential for indirect impacts. No threatened flora or fauna is likely to be significantly affected by the project.</p> <p>Biodiversity is considered further in Chapter 18 (Biodiversity).</p>
To encourage ecologically sustainable development.	<p>The project is consistent with the four principles of ecologically sustainable development:</p> <ul style="list-style-type: none"> • The precautionary principle • Inter-generational equity • Conservation of biological diversity and ecological integrity • Improved valuation and pricing and incentive mechanisms. <p>Ecologically sustainable development is further considered in Chapter 27 (Sustainability).</p>
To encourage the provision and maintenance of affordable housing.	<p>Not directly applicable. Potential future development and use of remaining project land would be determined in accordance with a Residual Land Management Plan that would be prepared for the project (refer to Chapter 12 (Land use and property)).</p>
To promote the sharing of the responsibility for environmental planning between different levels of government in the State.	<p>Consultation has been undertaken with the relevant local councils and government agencies throughout the development of the project and the preparation of this environmental impact statement. All levels of government have been encouraged to be actively involved in and to contribute to the evolution of the project and this environmental impact statement through historical and continuing consultation activities.</p>
To provide increased opportunity for public involvement and participation in environmental planning and assessment.	<p>Community consultation has been carried out through all stages of the project development, with targeted consultation commencing in January 2016. In particular, two rounds of targeted community consultation of design development have been undertaken.</p> <p>Community feedback has been considered at each stage of the project development to inform the selection of the preferred corridor alignment and subsequent design development and refinements. Community consultation would continue through the detailed design, construction and operational stages, should the project be approved. Details of community involvement are provided in Chapter 7 (Consultation).</p>

30.2 Conclusion

This EIS addresses the key issues identified in the SEARs issued under Part 5.1 of the EP&A Act and the relevant provisions of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (NSW). A checklist showing where the Secretary's environmental assessment requirements are addressed in this EIS is provided in **Appendix B** (Secretary's Environmental Assessment Requirements checklist).

The project is part of the NSW Government's commitment to deliver WestConnex for Sydney. Together with the other components of the WestConnex program of works and the proposed future Sydney Gateway, the project would facilitate improved connections between western Sydney, Sydney Airport and Port Botany and south and south-western Sydney, as well as better connectivity between the important economic centres along Sydney's Global Economic Corridor and local communities.

The merits of the M4-M5 Link were considered in the context of a range of other strategic alternatives, based on the extent to which they could meet the project objectives and how well they performed with reference to other transport, environmental, engineering, social and economic factors.

The following strategic alternatives were considered:

- Alternative 1 – improvements to the existing arterial road network
- Alternative 2 – investment in alternative transport modes
- Alternative 3 – demand management (reducing the number of vehicle kilometres travelled on the network)
- Alternative 4 – the 'do nothing'/'do minimum' case
- Alternative 5 – development of the M4-M5 Link.

These options were considered and assessed which resulted in Alternative 5 – development of the M4-M5 Link as part of the WestConnex program of works, being determined as the preferred strategic alternative.

The project is considered to be in the public interest by providing the following keys and opportunities:

- Easing congestion on surface roads by providing an underground motorway alternative and allowing for increased use of surface roads by pedestrians and cyclists and for public transport
- Reducing through traffic on sections of major arterial roads including City West Link, Parramatta Road, Victoria Road, King Street, King Georges Road and Sydenham Road, facilitating urban renewal opportunities to be realised along parts of the Parramatta Road and Victoria Road corridors
- Improving network productivity on the metropolitan network, with more trips forecast to be made or longer distances travelled on the network in a shorter time. The forecast increase in VKT and reduction in VHT is mainly due to traffic using the new motorway, with reductions in daily VKT and VHT also forecast on some non-motorway roads
- Reducing travel times on key corridors, such as between the M4 Motorway corridor and the Sydney Airport/Port Botany precinct
- Delivering up to 10 hectares of new open space including at the Rozelle Rail Yards, which would provide an open space link between Bicentennial Park at Glebe and Easton Park at Rozelle
- Delivering new north–south and east–west pedestrian and cycleway connections to link Rozelle and Lilyfield with Annandale, Balmain, Glebe and The Bays Precinct
- Facilitating future growth in Sydney's transport network by allowing for connections to the proposed future Western Harbour Tunnel and Beaches Link project.

As part of the WestConnex program of works, the project would enable future opportunities for improved connectivity in Sydney's transport network to be realised by providing connections to proposed motorway projects, including the Western Harbour Tunnel and Beaches Link project to the north, the Sydney Gateway project via the St Peters interchange and the F6 Extension (via the New M5 Motorway) to the south.

The project would support NSW's major sources of economic activity and provide a strategic response to the future transport demands on the already congested road network. With demonstrated consistency with these policies, there is a clear strategic justification for the project to proceed and a strategic need to meet the growing infrastructure requirements of Sydney Greater Metropolitan Area associated with the provision of a more efficient road network.

The project, as part of the WestConnex program of works, would also act as a catalyst for urban renewal along parts of Parramatta Road and Victoria Road and would support the development of The Bays Precinct, as outlined in *The Bays Precinct Transformation Plan* (UrbanGrowth NSW 2015b). In addition, the project would deliver local benefits through substantial new open space and passive recreational facilities at Rozelle, including within the Rozelle Rail Yards and along Victoria Road near Iron Cove Bridge, and improved connectivity for motorists, pedestrians and cyclists to surrounding inner west suburbs and the Sydney CBD.

The need to reduce impacts on property has been balanced with maximising opportunities for beneficial re-use of the areas required for construction that would be surplus to the operational needs of the project. The majority of the project, including a large part of the Rozelle interchange and Iron Cove Link, would be constructed underground and has been designed to minimise the need for surface property acquisition. In addition, construction ancillary facilities at Haberfield and St Peters that are being used by the M4 East and New M5 projects would be used for the M4-M5 Link, to minimise additional property acquisition at these locations for construction. The project would also seek to maximise the use of use government owned land, including land already owned by Roads and Maritime.

Notwithstanding this, construction and operation of the project would result in temporary and permanent impacts on property. As of August 2017, the project would require 51 property acquisitions. In addition to the properties affected by surface activities, land (or interests in land, such as easements) below the surface of the ground would be acquired.

Subject to detailed design and the requirements of the project, parts of the project footprint not required for operational infrastructure and/or the provision of open space and landscaping may be contemplated for separate future redevelopment. Where this is the case, the land would be rehabilitated at the end of construction and made suitable for potential development for permissible uses under land use zoning provisions and relevant urban renewal strategies. Future development/use would be subject to separate assessment and approval, and the restrictions of the relevant consent authority.

The construction of the project would result in air quality and noise impacts (over the duration of the construction period). However, these impacts would be minimised through the development and implementation of a construction environmental management plan and careful planning of the construction schedule and methodologies.

Adverse cumulative impacts could be encountered during the construction phases of the different WestConnex projects, especially from construction fatigue around the Haberfield and St Peters construction sites. In particular:

- The M4 East project is expected to be finished in 2019, and may overlap with the construction period of the M4-M5 Link project by around six months
- The New M5 project is expected to be finished in 2020, and may overlap with the construction period of the M4-M5 Link project by around 12 months.

Significant cumulative impacts with other planned developments in the area are not considered likely. Operational impacts of the project such as noise would be further investigated during detailed design to confirm appropriate mitigation measures or, where relevant, design refinements. When completed, the WestConnex program of works is expected to deliver beneficial cumulative impacts including significant increases in travel speeds through sections of the surface road network, increased reliability, and a reduction in average travel times.

This EIS includes a suite of management measures that aim to ensure the best possible environmental outcomes are achieved during its construction and operation.