



# Appendix H Preliminary Social and Business Report

February 2018

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# 1 Introduction

## 1.1 Background

North East Link is a proposed new freeway-standard road connection that would complete the missing link in Melbourne’s metropolitan ring road, giving the city a fully completed orbital connection for the first time. The proposed North East Link will begin on the Eastern Freeway at Springvale Road before connecting via a new 11-kilometre roadway to the M80 Ring Road at Greensborough. It provides a freeway solution that connects the growth areas, activity centres and employment / innovation clusters in the north and north east to communities and businesses in the east and south-east.

Since 1969, successive Victorian Governments have identified the need for a freeway standard road link through Melbourne’s north east to complete the city’s orbital connection. Potential routes have been identified in:

- Victorian Government (1969), Melbourne Transportation Plan
- Victorian Government (1974), F35 Study: Eastern Freeway – Ringwood to Greensborough
- Victorian Government (1979), Outer Ring Study, Diamond Creek to Ringwood: Technical Report: Transport and Economic Evaluation
- Victorian Government (2008), Investing in Transport (the Eddington Study)
- Victorian Government (2008), Victorian Transport Plan.

More recently, in 2016, North East Link was identified as Victoria’s next priority road project in Infrastructure Victoria’s 30-year strategy, which sets out a pipeline of initiatives to be delivered over the next three decades to help create the best possible future for the State of Victoria. The strategy undertook a high-level analysis and nominated North East Link as a short- to-medium-term project that would enhance access to major employment centres and improve the capacity of the freight network.

*Plan Melbourne*, Melbourne’s Metropolitan Planning Strategy sets out a vision for Melbourne through to 2050. In the context of a more connected Melbourne, *Plan Melbourne* sets out strategies to meet the objective of providing an integrated transport system connecting people to jobs and services and goods to market. *Plan Melbourne* identifies North East Link as a key transport infrastructure strategy to improve the efficiency of the freeway network and to link the north east to the western, southern and central parts of the city.

## 1.2 Purpose

As part of developing the business case for the project, the North East Link Authority (NELA) undertook a number of technical, environmental and social investigations.

This report presents the findings of the social and business investigations and outlines the potential benefits and impacts of the project’s scope as presented in the business case and outlined in section 3.

## 2 Project description

The project description presented in this section was developed to inform the business case and assessment of the corridor against the project objectives and guiding principles.

Should the project proceed past the business case stage, the State will undertake a more exhaustive consideration of all aspects in refining the project scope and developing the Reference Design. This will involve consideration of more design options and construction methods within the project corridor to inform the project approvals.

For the purpose of the business case, North East Link can be separated into four precincts as described below:

- M80 Ring Road to Lower Plenty Road
- Tunnels
- Bridge Street to Eastern Freeway
- Eastern Freeway upgrade.

<p>M80 Ring Road to Lower Plenty Road</p>	<p>Works within the M80 to Lower Plenty Road section of the project would include widening of the M80 Ring Road from Plenty Road to the Greensborough Bypass, and provision of a new interchange at the existing Greensborough Bypass, providing connectivity to and from North East Link in all directions. Minor works may occur on the existing Greensborough Bypass through to Diamond Creek Road and may include bridge strengthening at the Plenty River bridge.</p> <p>South of the M80 and extending to Watsonia Station, the existing Greensborough Bypass would likely be upgraded to become North East Link. Separate local roads would be provided to the east (generally southbound) and west (generally northbound) of North East Link, providing local connectivity to and from the M80, Greensborough Bypass, North East Link, Grimshaw Street, Watsonia Station and selected local roads.</p> <p>South of Watsonia Station, North East Link would diverge to the east of the existing Greensborough Bypass, and would likely dive down into a cutting structure. To maintain connectivity of the local road network, bridges would be provided across the cutting at various locations.</p>
<p>Tunnels</p>	<p>The northern tunnel portal would likely be in the vicinity of Erskine Road and Coleen Street, and the driven tunnels would likely start just north of Lower Plenty Road.</p> <p>An interchange at or near Lower Plenty Road would provide connectivity to and from North East Link in all directions.</p> <p>Between Lower Plenty Road and Bridge Street / Manningham Road, North East Link would include twin three lane bored tunnels running in a generally north-south orientation. The tunnels would travel under the residential area to the south of Lower Plenty Road, Banyule Flats, the Yarra River, Yarra Valley Country Club, the grounds of Heide Museum of Modern Art and Banksia Park.</p> <p>At each tunnel portal, supporting tunnel infrastructure would be required, including ventilation structures, water treatment plants, deluge tanks, substations, and associated infrastructure.</p>
<p>Bridge Street to Eastern Freeway</p>	<p>Within the Bridge Street to Eastern Freeway section of the project, North East Link would be constructed as a cutting structure and bored or mined tunnel. The southern tunnel portal would likely be located south of the Veneto Club. Further south, North East Link would comprise a new road at surface level and viaduct structure to connect into the Eastern Freeway via a new interchange.</p> <p>An interchange at Manningham Road would provide connectivity to and from North East Link in all directions.</p>

### Eastern Freeway Upgrade

North East Link would provide new dedicated bus lanes along the Eastern Freeway, from the Victoria Park precinct (near Hoddle Street) to Doncaster Road, creating an uninterrupted path for bus services travelling between the eastern suburbs and the City.

Currently there are two options being considered for connection of the new bus lanes into the existing network near the Victoria Park precinct. This includes an option starting near Victoria Park Station, where dedicated bus lanes would travel on a new viaduct structure over the Eastern Freeway and on to the existing freeway median, travelling towards Burke Road. To accommodate the new bus lanes, a new bridge structure would also be required over Merri Creek.

The second option is for the bus lanes to travel along the freeway shoulders from Hoddle Street before passing over the Eastern Freeway on new viaduct structures east of Merri Creek and on to the existing median and travelling towards Burke Road.

In both options, the bus lanes east of Burke Road would cross over the freeway on a new viaduct structure to the northern side of the freeway adjacent to the new Bulleen Road / Eastern Freeway interchange. The bus lanes would cross Bulleen Road and North East Link interchange via a new underpass. East of Bulleen Road, the bus lanes would be at surface level on the northern side of the Eastern Freeway through to Doncaster Road.

Eastern Freeway works would also include widening from around Chandler Highway in the west, to around Springvale Road in the east. The widening would consist of an additional one to four lanes in various locations. Widening would likely take place on both sides of the freeway and in the median.

Widening is likely to occur at-grade for the most part although reconstruction of some bridge structures would likely be required. The widening works may also involve covering parts of Koonung Creek with new structures and/or converting sections of the existing open creek to culverts.

In addition to the works described above, other works that would occur throughout the project corridor include, provision of new shared use paths, replacement and adjustments to noise walls, and reconstruction of traffic signs and gantries.

## 3 Preliminary assessment

### 3.1 Approach

During development of the business case, preliminary social and business specialist assessments were undertaken. These assessments considered the project objectives and guiding principles including the relevant criteria and measures that were developed and used as part of the options assessment process (refer to **Appendix D** of the business case).

The assessments provide an initial basis for:

- Understanding the existing conditions in the area where North East Link would be located
- Predicting the potential impacts that may arise
- Identifying potential strategies to assess and manage these impacts.

The preliminary social and business assessments were informed by:

- Collation and desktop assessment of data including:
  - Australian Bureau of Statistics (ABS) Census data (2011 and 2016)
  - Victoria in Future data
  - ABS Socio Economic Indexes for Areas
  - Australian Urban Research Infrastructure Network (AURIN) spatial data
  - Business data maintained by WorkSafe Victoria
- Review of State and local government policies and strategies
- Field visits to contextualise desktop findings
- Participation at community information sessions.

Census data has only been explored at the local government area (LGA) level, and not smaller geographical areas (e.g. at the suburb level) given social and business impacts tend to affect communities beyond the immediate area of a potential route alignment.

In addition, business data maintained by WorkSafe Victoria has some limitations. The data includes approximately 95 percent of the businesses registered in the WorkSafe database, due to possible geocoding failures. Businesses that are not registered with WorkSafe, for example some sole operator businesses, are not included in this data. Additionally, some business owners, such as some tradespeople, may list their residential address for WorkSafe purposes, which creates a misrepresentation of the spatial distribution of business types.

## 3.2 Overview of potential social and business impacts

Table 1 summarises the key potential social and business impacts that would need to be managed during construction and operation of North East Link. These potential impacts are further described in Sections 3.3 and 3.4.

Table 1 Overview of potential social and business impacts

Theme	Potential impacts	
1. Business	1.1	Temporary changes to the environment for businesses adjacent to the project corridor (including changes to access and amenity) during construction
	1.2	Temporary changes to employment access and opportunities
	1.3	Displacement of businesses due to acquisition of commercial or industrial land
	1.4	Permanent changes to the environment for businesses adjacent to the project corridor (including changes to access and amenity)
	1.5	Permanent changes to employment access and opportunities
2. Social and community	2.1	Temporary loss of passive open space
	2.2	Temporary loss or reduced function of community or recreation facilities
	2.3	Permanent loss of passive open space
	2.4	Permanent loss or reduced function of community or recreation facilities
	2.5	Temporary changes to residential amenity associated with noise, air quality or visual outlook
	2.6	Permanent changes to residential amenity associated with noise, air quality or visual outlook
	2.7	Displacement of residents due to acquisition of properties or changes in access
	2.8	Amenity and safety impacts associated with the re-distribution of heavy vehicle traffic off local residential areas
	2.9	Amenity and safety impacts associated with the re-distribution of heavy vehicle traffic off the wider road network

## 3.3 Business

### 3.3.1 Existing conditions

While desktop and field investigation identified a large number of individual and small business clusters within the vicinity of the corridor, four business precincts have been specifically identified due to their scale, based on number of businesses, employment levels and customer base. These precincts are all located within about one kilometre of the proposed North East Link and are described in the sections below. The high-level business impact assessment was undertaken using State and local government area (LGA) policies and strategies, and business data by Statistical Area Level 1 (SA1) maintained by WorkSafe Victoria, supplied by Ernst & Young.

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## Greensborough Plaza precinct

The Greensborough Plaza precinct is located to the east of the proposed North East Link, and can be accessed via Grimshaw Street. The Greensborough Plaza precinct is the only precinct within the study area that contains land zoned as Activity Centre Zone, which is designed to encourage development that supports a range of business types. Greensborough Plaza has an annual turnover of approximately \$330 million, and the broader Greensborough activity centre attracts an estimated 10 million visitors each year. The Greensborough activity centre provides jobs to approximately 3,000 workers.<sup>1</sup>

WorkSafe data at the SA1 level identifies that retail trade is the most highly represented industry in this precinct by business count. This is followed by health care and social assistance businesses, accommodation and food services businesses and other services businesses. There are around 250 businesses.

## Watsonia Station

The Watsonia Station precinct is immediately to the west of the proposed North East Link, west of the Hurstbridge rail line and Watsonia Station, and can be accessed via Watsonia Road.

The precinct contains a diverse mix of business types including Watsonia Library, timber and hardware retailers, boutique and second hand fashion retailers, service providers including those in the medical sector, eateries, homeware retailers, food and drink retailers and a service station. Land to the north-west of the precinct zoned for industrial use contains businesses in the automotive sector, manufacturers, warehouses and construction sector retailers.

Top industries by business count in the Watsonia Station precinct include retail trade businesses, health care and social assistance businesses, professional, scientific and technical services businesses, and other services businesses. There are around 80 businesses.

## Heidelberg Station precinct

The Heidelberg Station precinct is generally located to the west of the proposed North East Link, and can be accessed via Manningham Road and Rosanna Road. For the purposes of this assessment, it also extends to the east to include businesses near and including the Heide Museum of Modern Art.

The precinct contains Warringal Shopping Centre, Heidelberg Police Station, Heidelberg Magistrates' Court, large supermarkets and a number of other businesses that operate primarily in the health care and social assistance, retail trade and professional, scientific and technical services industries. A primary school and secondary school are also located within the precinct. There are around 220 businesses in the precinct.

Land zoned as Special Use to the east of the precinct contains Heide Museum of Modern Art, a State-owned public museum and gallery space that provides employment opportunities for a number of local residents. Approximately 70,000 people visit Heide Museum of Modern Art each year making it a key tourist attraction for the region.

## Bulleen Road south of Bridge Street

The Bulleen Road precinct south of Bridge Street is located to the east and west of the proposed North East Link. It has been into two distinct areas – the industrial and commercial area to the north, and the school and leisure activity area to the south.

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<sup>1</sup> *Greensborough Structure Plan Review – Economic Base Report*

The industrial zoned land contains over 100 businesses, a large proportion of which provide niche automotive services and products. Other business types in this area include a premixed concrete business, construction and industrial material retailers and machinery and vehicle hire businesses, as well as a number of service businesses such as eateries, dry cleaners and fitness centres.

The school and leisure activity area to the south of the precinct comprises the Freeway Golf Course, Bulleen Park, Bulleen Swim Centre, Boroondara Tennis Centre, several large registered clubs and eateries and a liquor retailer.

### 3.3.2 Potential impacts

#### Acquisition of properties containing businesses

Some businesses would need to be fully or partially acquired for construction of the proposed North East Link, particularly south of Bridge Street. Where businesses are fully acquired, they would not be able to continue operating in their current location. For businesses that are located on sites that would be partially acquired, the ability for those businesses to be reconfigured to continue operations on the present site would be investigated on a case by case basis.

For those businesses that are not dependent on passing trade, are not sited with interrelated or complementary businesses or do not depend on special permits or approvals to operate in their current location, they could potentially relocate to another business precinct or suitably zoned land nearby without substantial loss of their customer base. Adequate notice would be required for this to be successfully achieved.

Some other businesses, such as the automotive businesses south of Bridge Street, may currently benefit from supply chain efficiencies, knowledge share, labour pooling, customer referrals and other characteristics associated with agglomeration economies. In these circumstances, acquisition of businesses would also potentially reduce the viability of non-acquired businesses. Acquisition of a large number of businesses of a particular type in one area, could significantly impact the ongoing availability of these services to the local community and reduce local employment opportunities in this sector.

#### Access impacts during construction

Changes to traffic patterns during construction could have effects on businesses located adjacent or in close proximity to North East Link, depending on their catchment and composition of their client base.

Potential access impacts that could affect businesses include:

- Reduced access to businesses due to road and footpath closures could adversely affect businesses that rely on passing trade. However, road closures may benefit other businesses reliant on passing trade should they experience greater passing traffic as vehicles and pedestrians are diverted.
- Reduced availability of parking, especially in areas where construction staff may park, would adversely impact businesses that rely on customers that reach them by private vehicle.
- Larger business precincts would have significant customer and employment catchments that extend either side of the study area. Works that significantly delay or prevent direct and convenient access from one side of the study area to the other could significantly reduce these customer and employment catchments for a large number of businesses.

- In addition to customer access, some businesses would likely have substantial freight and logistics operations that demand frequent vehicle movements to generate revenue and maintain profitability. It is expected that some businesses would operate just-in-time supply chains, where efficient delivery of input goods and delivery of output goods is required to enable consistent production. For other businesses that have frequent vehicle movements it is likely that increased travel times would equate to increasing labour and vehicle operating costs. It could also affect customer service.

## Amenity impacts during construction

There are a number of hospitality and retail businesses within the project area, some of which have outdoor seating areas. Amenity impacts associated with dust and noise could reduce the attractiveness of some of these businesses and temporarily decrease the number of customers that visit them. The impact associated with this may be slightly offset by spending from construction staff that would otherwise not occur.

## Operation impacts

It is expected that many businesses would experience benefits resulting from reduced travel times. However, a redistribution of traffic associated with operation of North East Link may positively or negatively impact businesses that rely on passing trade. For businesses that remain in the immediate vicinity of the North East Link, permanent changes to parking, access or amenity could also affect the ongoing operation of these businesses.

### 3.3.3 Further investigations and management measures

Further investigations would be undertaken during the Reference Design and planning approvals phase to confirm the number and type of businesses that would be potentially be impacted. This would include analysis of land use data collected and maintained by councils, as well as consultation with key stakeholders including owners and operators of businesses.

Management measures would be implemented to minimise potential business impacts, including:

- During development of the Reference Design, minimise the need for permanent acquisition and temporary occupation of land as much as practicable
- During construction, minimise impacts on the level of access, amenity or function of businesses. Where impacts are unavoidable, affected businesses would be notified of potential impacts and temporary access arrangements. Where temporary access arrangements are implemented, access would be restored or relocated as agreed with the property owner when construction work is complete.

## 3.4 Social and community

### 3.4.1 Existing conditions

#### Census data

North East Link would pass through six LGAs in Melbourne's north east, being Banyule, Boroondara, Manningham, Nillumbik, Whitehorse and Yarra. Key census data for these six LGAs is presented in Attachment A.

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At the 2016 Census, these LGAs had a combined resident population of over 715,000 people. Some overarching trends and themes found to apply across these LGAs relative to Greater Melbourne include:

- In all LGAs, with the exception of the Yarra, the average age of residents exceeded that of Greater Melbourne, which is 36 years. In Yarra, the average age is less than that of Greater Melbourne.
- The cultural diversity of the LGAs (proportion of residents born in countries where English is not the main language, and households where languages other than English are predominantly spoken) is mixed, although has grown between 2011 and 2016 in all LGAs. Persons born in non-main English speaking countries range from 8.7 to 35.2 percent and languages spoken at home other than English range from 9.2 to 42.5 percent of the population. In relative terms, the less culturally diverse LGAs were reported as Banyule, Boroondara, Nillumbik and Yarra, while Manningham and Whitehorse reported higher levels of cultural diversity. Residents with English language barriers may be at risk of being less able to effectively engage and understand project impacts.
- Relative to Greater Melbourne, a higher than average proportion of family households are reported to exist in Banyule, Manningham and Nillumbik, while Boroondara, Whitehorse and Yarra reported a lower than average proportion. A family is defined by the ABS as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household. A higher than average proportion of lone households were reported to exist in Banyule, Boroondara, Whitehorse and Yarra, while Manningham and Nillumbik reported a lower than average proportion. This may influence relative levels of demand for schools, children's sporting facilities and parks, as well as the kinds of social networks that exist.
- The reported percentage of people with a need for assistance was below or generally comparable with the levels for Greater Melbourne.
- For all LGAs, with the exception of Yarra, residents reported fully owning their homes at higher than average rates. Residents in Banyule, Manningham, Nillumbik and Whitehorse reported renting homes at lower than average rates, while residents in Boroondara and Yarra reported a higher proportion of households renting than the average (in Yarra, the proportion renting is significantly higher than the average). From a socio-economic perspective, in general, home owners – and particularly people who fully own their homes – are considered better off than renters, given their asset wealth as well as enhanced property rights and security of tenure.
- Lower proportions of residents reported as living in State housing than the Greater Melbourne average in all LGAs except Banyule and Yarra.
- In all LGAs, median household incomes were generally comparable to or above the average for Greater Melbourne. This may indicate residents are financially well equipped to respond to project impacts.
- Most LGAs reported relatively well educated populations, with lower than average proportions of residents without post-school qualifications. This likely influences employment types, and where residents typically commute to work.
- In all LGAs, with the exception of Yarra, a higher than average proportion of residents have lived at the same address for five years or more. This low level of mobility is possibly indicative of a deep level of attachment to the community among residents.
- All LGAs, with the exception of Yarra, reported generally comparable or lower than average proportions of households with no motor vehicle, and higher than average proportions of households with one or more motor vehicle. This may be related to the above average incomes and the availability of public transport options in the area.

- In all LGAs, travel to work was foremost undertaken by car and, except in Boroondara, Whitehorse and Yarra, at levels above the Greater Melbourne average. Travel to work by train or bus was above the average in Banyule, Boroondara, Whitehorse and Yarra, while travel to work by bus was significantly above the average in Manningham. Travel to work by cycling or walking only was significantly above the average in Yarra.

## Community facilities

Community facilities include cultural centres, schools or education centres, emergency facilities, hospitals, and sporting or recreational facilities as well as public car parking and shared use paths. North East Link would be in close proximity to a variety of community facilities, a large proportion of which are schools, or facilities serving vulnerable people such as children and the elderly.

### 3.4.2 Potential impacts

#### Potential displacement impacts due to property acquisition

North East Link would require the acquisition of residential properties. Given many local residents have lived in the area for long periods, it is anticipated that they may have strong attachment to their properties and the community. This impact can be significant, particularly if it is difficult to repurchase (or rent in the case of tenants) a comparable property in the area. Impacts are also expected to be more significant for vulnerable residents.

North East Link would also require the acquisition of a number of community facilities, defined to include cultural centres, schools or education centres, and sporting or recreational facilities. Many community facilities that may be impacted also classify as sensitive receptors, and therefore may affect vulnerable user groups such as children and the elderly.

A number of the community facilities anticipated to be affected are sporting and recreational facilities. Most of this acquisition is expected to be partial, where it may be possible that functional areas at the facilities would remain usable and accessible. Other acquisitions, may be full and permanent, which would result in the displacement of community facilities and loss of associated activities. This in turn would impact on the community cohesion and networks that these facilities provide. Through appropriate planning, such facilities would need to be relocated to another suitable site, or capacities at other similar facilities within the area would need to be increased to meet demand.

It is expected that areas of car parking and public open space, including shared use paths, would be acquired. This loss of public open space and car parking, which would be temporary in some cases and permanent in others, is expected to impact recreational spaces, which may be significant to the user groups if acceptable local alternatives cannot easily be found.

#### Lost or diminished access during construction

Construction work may temporarily inhibit access to residential properties, community facilities or open space close to the project but outside of the acquisition boundary. This impact may include changes to direct access or reduced availability of parking. Barriers to access to community facilities and open space can also include traffic congestion and detours, which may result in some people deciding not to make their usual trips. Where there is the potential for properties and facilities to be impacted in this way, alternative access would be provided in consultation with the property owner, occupier or user groups.

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## Impact to health and community well-being due to increased travel times during construction

Traffic diversions, delays, and additional construction vehicles may contribute to traffic congestion and longer routes which could lengthen current travel times. It is likely that all modes of local transport could experience some disruptions and delays. Research suggests that increased congestion and travel times for commuters is linked to an increased sense of stress and reduced sense of well-being due to time pressures.<sup>2</sup> Increased travel time also has the potential to reduce recreational and family time. Additionally the increase in heavy vehicles and changed traffic conditions during construction may increase risk of traffic accidents, reducing road safety. This would depend on the routes identified for construction vehicles.

## Potential severance, connectedness and cohesion impacts due to new road infrastructure, changed local traffic movement, and altered perceptions of safety

The construction of new road infrastructure can be perceived to create physical, and even psychological, barriers which result in community severance and associated impacts on community cohesion. Increased truck and other traffic and changes to local access during construction and operation, can also sever existing community networks and alter access patterns, with the effects likely to be most pronounced for young families, the elderly and those with mobility constraints.

## Potential impacts on amenity and local community character

Amenity impacts are specific impacts on the attractiveness of an area and the enjoyment of it. Project-related changes to community character, air quality, noise levels, visual landscape and environmental values that attract people to visit, move to, and remain in, an area are considered to impact on local amenity. Construction activities, including truck movements, can diminish the amenity of households, by reducing the ability of residents to enjoy and make use of their property. Any project-related loss of tree cover could be viewed as altering the streetscape and adversely impacting the look and feel of the community (i.e., affecting the community character). The temporary influx of the construction workforce and equipment, along with the light-spill from any night works, could also somewhat temporarily alter the local amenity and community character.

Similarly, if amenity associated with visiting community facilities is perceived to be significantly reduced, decreased patronage may result, potentially affecting the viability of facilities. The degree to which community facilities would likely be affected would vary, but in general impacts would be lower for those facilities located further away from North East Link.

During operation, it is expected that the project would reduce the number of trucks off some local roads such as Rosanna Road, which is expected to improve amenity and safety on these residential streets. Other areas may be exposed to new road infrastructure, which may result in adverse amenity impacts in terms of traffic, noise, air quality and visual impact. The extent of these impacts is contingent on the ultimate design which is currently in an early stage of development. Further detail will be provided in the Reference Design, such as how and where pedestrian access will be facilitated, acoustic mitigations, and details of the urban design strategy.

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<sup>2</sup> Hilbrecht, M., Smale, B., & Mock, S. E. (2014). Highway to health? Commute time and well-being among Canadian adults. *World Leisure Journal*, 56(2), 151-163. doi:10.1080/16078055.2014.903723

## Potential stress and anxiety impacts

Property impacts associated with residential acquisition, changes in amenity and potential property damage due to tunnelling may cause stress and anxiety among affected property owners. In some cases, simple misperceptions are corrected once full information is provided (i.e., understanding of the compensation process, tunnel depth, and location); in others there is distrust of information and impacts are largely perception based. The extent to which this impact is felt, has the potential to vary significantly by individual. It may vary according to disposition and capacity for, and experience in, responding to change. It is acknowledged that vulnerable persons are likely to be more susceptible to this impact.

## Potential benefit to health and community well-being due to reduced travel times

Once operational, North East Link is anticipated to improve travel times. This would apply to pedestrian, cycling, bus and private vehicle travel due to new efficiencies in the transport system. In light of evidence that suggests long vehicle commutes are linked to an increased sense of stress and reduced sense of well-being, any travel time saving is expected to have a potentially positive impact on health and well-being.<sup>3</sup> The provision of a new, high standard freeway would likely support a more continuous, and therefore safer, flow of traffic.

### 3.4.3 Further investigations and management measures

Further investigations would be undertaken during the Reference Design and planning approvals phase to confirm the number and type of residential properties, community facilities and public open space that would potentially be impacted. This would include:

- Analysis of demographic characteristics at localised level, once the Reference Design is confirmed
- Review and analysis of legislation, social policies and plans at Commonwealth, State and local levels, with particular focus on local government strategic plans in relation to active transport, environment and inclusion
- Further consultation activities with the community and key stakeholders such as local councils, to gain further insights into local community concerns and values
- Consultation with residents, community facility owners/operators and local councils (as the managers of public open space) of land proposed to be acquired.

A number of management measures would be implemented to minimise potential social impacts. These would include:

- During development of the Reference Design, minimise the requirement for permanent acquisition or temporary occupation of residential land as much as practicable
- Prepare and implement a Community and Stakeholder Engagement Management Plan in consultation with affected local councils to engage and consult the community and potentially affected stakeholders and discuss progress of construction activities and operation
- Where residential property acquisition is unavoidable, develop a relocation strategy that outlines the support that can be offered to affected residents, particularly vulnerable residents
- Where construction activities directly impact on sports clubs or passive recreation users of directly impacted sporting and recreational facilities, work with affected sporting clubs and land managers to identify local alternative facilities for the period of disruption.

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<sup>3</sup> Hilbrecht, M., Smale, B., & Mock, S. E. (2014). Highway to health? Commute time and well-being among Canadian adults. *World Leisure Journal*, 56(2), 151-163. doi:10.1080/16078055.2014.903723

## 4 Environmental management framework

The mitigation of actual or potential adverse impacts associated with the project would take place within an overarching Environmental Management Framework (EMF). This framework would provide a transparent and accountable framework for managing environmental aspects of the project's delivery in accordance with applicable legislation and approval conditions.

A set of Environmental Performance Requirements (EPRs) would be developed for the project during detailed assessment to define the minimum environmental outcomes that must be achieved for design, construction and operation.

The EPRs will be performance-based and expressed in terms of outcomes to be achieved for net community benefits, while allowing flexibility in the detailed design response or specific measures to be put in place to achieve the requisite outcome.

The EPRs will be developed during preparation of the Environment Effects Statement (EES), assessed by an independent panel appointed by the Minister for Planning, and considered by the Minister during assessment of the EES.

# Attachments

## Attachment A – Key 2016 Census data

Indicator	Banyule	Boroondara	Manningham	Nillumbik	Whitehorse	Yarra	Greater Melbourne
Total population	121,865	167,231	116,255	61,273	162,078	86,657	4,485,211
Median age	39	38	43	41	38	33	36
Indigenous persons	0.6%	0.2%	0.2%	0.4%	0.2%	0.4%	0.5%
Persons born in non-main English speaking countries	18.4%	24.6%	35.2%	8.7%	33.7%	19.6%	27.8%
Language spoken at home other than English	21.7%	27.3%	42.5%	9.2%	36.7%	22.3%	32.3%
Family households	73.0%	70.6%	79.2%	84.4%	70.9%	53.5%	71.7%
Lone person households	23.8%	24.2%	18.6%	14.3%	23.9%	32.4%	23.2%
Average household size	2.6	2.6	2.8	3	2.6	2.1	2.7
Need for assistance	5.0%	3.8%	5.0%	3.3%	4.7%	3.5%	4.9%
Fully owned	38.6%	38.9%	47.4%	39.6%	38.1%	20.4%	31.6%
Owned with a mortgage	35.9%	29.8%	33.3%	50.5%	33.2%	23.0%	37.4%
Rented (total)	25.5%	31.3%	19.3%	9.8%	28.7%	56.6%	31.1%
Rented from State or territory housing authority	13.3%	2.6%	2.4%	5.4%	6.7%	17.2%	7.6%
Median household income (\$/weekly)	1,655	2,083	1,642	2,098	1,507	1,958	1,542
Unemployment rate	5.5%	5.6%	6.1%	4.3%	7.0%	5.3%	6.8%
Without post-school qualifications	35.2%	29.4%	38.0%	34.9%	35.8%	24.9%	38.6%
Lived at same address 1 year ago	80%	76.6%	81.6%	84.9%	78.0%	65.7%	76.3%
Lived at same address 5 years ago	57.5%	51.0%	59.9%	64.8%	53.7%	35.9%	50.1%
Households without a motor vehicle	6.1%	7.8%	5.7%	1.9%	8.0%	21.5%	7.5%
Journey to work by train	16.1%	15.3%	4.2%	9.7%	17.4%	12.6%	12.4%
Journey to work by bus	1.8%	2.6%	8.6%	0.9%	2.5%	1.9%	1.6%
Journey to work by car (as driver or passenger)	71.1%	60.8%	76.1%	79.1%	68.6%	37.8%	71.3%
Journey to work by cycling	1.2%	2.1	0.3%	0.4%	0.7%	9.2%	1.5%
Journey to work by walking only	2.5%	3.9%	1.4%	1.3%	2.6%	13.3%	3.2%