MAJOR ROADS PROJECT AUTHORITY

OCTOBER 2018

MORDIALLOC BYPASS

SOCIAL IMPACT ASSESSMENT

Report Number: 2135645A-SE-26-SIA-REP-0002 REV1

wsp

Question today
Imagine tomorrow
Create for the future

Mordialloc Bypass
Social Impact Assessment

Major Roads Project Authority

WSP
Level 15, 28 Freshwater Place
Southbank VIC 3006

Tel: +61 3 9861 1111
Fax: +61 3 9861 1144
wsp.com

REV	DATE	DETAILS
1	12/10/2018	Final

	NAME	DATE	SIGNATURE
Prepared by:	Ceit Wilson	12/10/2018	pp
Reviewed by:	Naomi Cavanagh	12/10/2018	
Approved by:	Sean Myers	12/10/2018	

TABLE OF CONTENTS

GLOSSARY IV

ABBREVIATIONS V

EXECUTIVE SUMMARY VI

1 INTRODUCTION 1

1.1 PURPOSE OF THIS REPORT 1

1.2 SCOPE OF THIS ASSESSMENT 1

1.3 ASSUMPTIONS AND LIMITATIONS 1

1.4 PROJECT DESCRIPTION 2

2 EES OBJECTIVES AND REQUIREMENTS 5

2.1 PROJECT OBJECTIVES 5

2.2 EES SCOPING REQUIREMENTS 5

2.3 PUBLIC SUBMISSIONS TO THE DRAFT SCOPING REQUIREMENTS 6

2.4 THEMES FOR ASSESSMENT 6

3 LEGISLATION AND POLICY 7

4 METHODOLOGY 10

5 EXISTING CONDITIONS 13

5.1 STUDY AREA 13

5.2 STUDY AREA COMMUNITIES 14

5.3 COMMUNITY VALUES AND LOCAL ISSUES 16

5.4 ACCESS AND MOVEMENT 17

6 RISK ASSESSMENT 25

7 IMPACT ASSESSMENT AND MITIGATION 27

7.1 DISLOCATION 27

7.2 DISRUPTION 29

7.3 ALIGNMENT WITH POLICY 31

7.4 CUMULATIVE IMPACTS 31

7.5 SUMMARY OF IMPACTS AND MITIGATION 32

CONTENTS (Continued)

8 ENVIRONMENTAL PERFORMANCE REQUIREMENTS 36

9 CONCLUSION 39

10 LIMITATION STATEMENT 40

10.1 PERMITTED PURPOSE 40

10.2 QUALIFICATIONS AND ASSUMPTIONS 40

10.3 USE AND RELIANCE 40

10.4 DISCLAIMER 41

11 REFERENCES 42

LIST OF TABLES

TABLE 3.1 SUMMARY OF LEGISLATION AND POLICY REVIEW 7

TABLE 5.1 SUMMARY OF COMMUNITY VALUES 16

TABLE 5.2 ASSESSMENT OF THE DISTRIBUTION OF COMMUNITY SERVICES AND FACILITIES IN THE STUDY AREA 18

TABLE 5.3 ANNUAL COMMUNITY ACTIVITIES 21

TABLE 6.1 SOCIAL ENVIRONMENTAL RISK ASSESSMENT REGISTER 25

TABLE 7.1 SUMMARY OF IMPACTS AND RECOMMENDED MITIGATION 32

TABLE 8.1 SOCIAL ENVIRONMENTAL PERFORMANCE REQUIREMENTS 36

LIST OF FIGURES

FIGURE 1.1 MORDIALLOC BYPASS PROJECT MAP 4

FIGURE 5.1 MORDIALLOC BYPASS EES SOCIAL IMPACT ASSESSMENT STUDY AREA DEFINED BY SA1 BOUNDARIES 14

FIGURE 5.2 CITY OF KINGSTON EXISTING ON/OFF ROAD CYCLING AND WALKING FACILITIES (2008) 24

LIST OF APPENDICES

APPENDIX A ENVIRONMENTAL RISK ASSESSMENT TOOLS

APPENDIX B DEMOGRAPHIC PROFILE OF STUDY AREA COMMUNITIES

APPENDIX C FACILITY AUDIT MAPS

GLOSSARY

Community	Residential community within SA1s adjacent to the project footprint. Residential communities are divided along suburb boundaries, but only include suburb residents that fall within the study area boundary.
Vulnerable communities	Communities with higher rates of, or multiple indicators of, socio-economic disadvantage, reduced mobility (lower car ownership, reduced access to public transport), or greater reliance on local facilities and services.
SA1	Statistical Area Level 1: (generally) the smallest unit for the release of census data. SA1s have a population of between 200 and 800 people with an average population size of approximately 400 people.
SEIFA	Socio-Economic Indexes for Areas: an ABS product that ranks areas in Australia according to relative socio-economic advantage and disadvantage
Study area	A study area was defined by using SA1boundaries as defined by the Australian Bureau of Statistics 2016 Census of Population and Housing (2016 Census). The study area defined for this assessment includes geographic communities surrounding the project area.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
CALD	Culturally and Linguistically Diverse
DELWP	Department of Environment, Land, Water and Planning
EES	Environment Effects Statement
ERA	Environmental risk assessment
LGA	Local Government Area
LPPF	Local Planning Policy Framework
MCH	Maternal and Child Health
MRPA	Major Roads Projects Authority
MSS	Municipal Strategic Statement
PAO	Public Acquisition Overlay
SEIFA	Socio-Economic Indexes for Areas
SA1	Statistical Area Level 1
SIA	Social Impact Assessment
SPPF	State Planning Policy Framework

EXECUTIVE SUMMARY

INTRODUCTION

This social assessment identifies the potential for social impacts to local communities arising from the Mordialloc Bypass project (the project). This assessment, in conjunction with other technical studies will inform the preparation of an Environment Effects Statement for submission to the Victorian Minister for Planning for consideration during the planning approvals process.

PROJECT DESCRIPTION

The project is the proposed construction of a new freeway connecting the Dingley Bypass with the Mornington Peninsula Freeway. It is predominately within an existing road reservation. The project corridor is approximately 9.7 kilometres in length, comprising two, two-lane 7.5-kilometre-long carriageways (with a path for walking and cycling).

The project will connect to the Dingley Bypass, Centre Dandenong Road, Lower Dandenong Road, Governor Road, Springvale Road and new north facing ramps at Thames Promenade. It will also include an overpass at Old Dandenong Road, and bridges spanning Mordialloc Creek and the Waterways wetlands.

The proposed alignment of the project is generally located within the existing road reservation, most of which is already covered by Public Acquisition Overlay, and some of which is already in VicRoads' ownership.

There are two dwellings impacted by the proposed design, one is a derelict dwelling associated with a business that is currently trading. The second dwelling is partially on VicRoads land managed by Parks Victoria as part of Braeside Park. The current design avoids direct impacts to the office for Braeside Park staff, and impacts to the surrounding shed and structures.

SCOPE OF ASSESSMENT

This assessment is guided by the *Scoping Requirements for Mordialloc Bypass EES* (Scoping Requirements) (May 2018). Section 4.6, *Social Land Use and Infrastructure* stipulates the following objective:

> *To minimise potential adverse social and land use effects, including impacts on existing infrastructure and open space.*

Informed by the Scoping Requirements, this social assessment will consider the existing conditions of the study area and residential communities with respect to the following:

- Dislocation, loss and/or severance of residential areas, community facilities, valued places or open space
- Disruption or changes to local access routes and/or connections
- Alignment of project objectives and design with relevant community strategies, policies and plans
- Cumulative impacts.

This assessment considered change from the existing situation established through preliminary review and found that, with respect to disruptions and restricted or altered local access, the most significant impacts of the project on local communities are anticipated during the construction phase.

IMPACTS AND MITIGATION

Table ES.1 summarises impacts identified and recommended mitigation measures based on background investigations including a demographic profile of residential communities, review of relevant legislation, policy and consultation outcomes, audits of community facilities, services and places of interest, and stakeholder consultation.

With respect to disruptions and restricted or altered local access, the assessment found that most significant impacts on local communities are anticipated to occur during the construction phase and would therefore be temporary in nature. Informal recreational activities in the vacant road reserve would, however, be permanently dislocated. Changes to local amenity and the loss of informal open space provided by the road reserve may also create a sense of loss of place among people who use the area.

The assessment found that the community of Waterways is particularly susceptible to these impacts as:

- The community includes multiple indicators of vulnerability
- The area has limited access points to the local and arterial road network, all of which will be directly impacted by construction
- Residents are heavily reliant on services provided in Aspendale, Aspendale Gardens, Edithvale and Mordialloc, and require convenient connections to this area.

While Dingley Village is generally self-sufficient, the assessment found that many secondary school students travel east-west from Dingley Village to attend Parkdale Secondary College and are reliant on bus routes servicing Lower Dandenong Road.

Cumulative impacts from other projects are not expected to be significant, with potential impacts on the community most likely to result from changed traffic conditions associated with the construction of the Edithvale and Bonbeach Level Crossing Removal project.

Mitigation for the social impacts identified in this assessment therefore focusses on early, consistent and transparent communication with affected stakeholders and communities. A detailed and targeted consultation plan is required to ensure that communications are timely and consistent and meet the needs and requirements of impacted communities. Coordination with neighbouring project developers and proponents is also recommended to manage cumulative impacts on local vehicle and public transport users.

Table ES.1 Summary of impacts and recommended mitigation

IMPACT	MITIGATION
Loss of informal recreation space and connections to surrounding communities.	— Liaise with local communities to understand how they use, and what they value about the existing reserve, and what uses can be accommodated elsewhere or incorporated into the design of publicly accessible spaces. — Develop a coordinated approach for consultation.
Changes to local access networks during construction are likely to create delays, diversions and frustration for local communities and through traffic.	— Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches. — Project communications should be prominently displayed in local hubs and places of community activity. — The construction program would minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours wherever possible.

IMPACT	MITIGATION
Usual access routes into the Waterways Estate (Governor Road, Springvale Road, Bowen Parkway) will be either directly or indirectly affected both by construction works. This is likely to temporarily increase travel time and congestion for residents at peak construction periods, and may potentially result in disruption to Bowen Parkway and the western entry points to the Waterways estate.	— The construction program would minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours wherever possible. — Continue to consult with communities regarding disruptions, the impact of changed traffic conditions and identify opportunities to carry out works at night or during off-peak times to minimise disruptions. — Ensure that communities are notified well in advance of construction and changes to access.
During construction, disruptions to Bowen Parkway for vehicle, pedestrian and cycle traffic will constrain the shortest and most convenient access to the Aspendale Gardens Centre, including Aspendale Gardens Primary School.	— Ensure that pedestrian and cycle access is retained wherever possible during construction to enable local communities to access safe and convenient active modes of transport (particularly within the Waterways Estate and access to Braeside Park). — Liaise with families of students attending Aspendale Gardens Primary School with regard to altered access and disruptions for residents of Waterways. — Consult with local communities early and throughout to inform the design of the shared user path and landscaping element in response to community needs.
Restricting access to Bowen Parkways (the most direct route to Aspendale Gardens) will add time and distance to a journey and may encourage greater car dependency during peak construction times when congestion is likely to be greatest.	— The construction program would minimise and avoid disruptions, where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours where possible. — Seek feedback from local communities regarding the most important aspects of the local road network and investigate opportunities to carry out works at night or during off-peak times to minimise disruptions. — Ensure that pedestrian and cycle access is retained wherever possible during construction to enable local communities to access safe and convenient active modes of transport (particularly within the Waterways Estate and access to Braeside Park).
Possible disruptions to day services provided by Autism Plus at Dingley Village during construction, where noise, light or vibration impacts are significant.	— Continue to liaise with Autism Plus throughout construction to provide notice of planned construction activities that may generate significant levels of noise, light or vibration. — In the event that programs are temporarily relocated off site, investigate opportunities to provide transport for client residing locally. — Continue to liaise with Autism Plus to investigate opportunities for client to be involved during construction, such as tree planting programs or employment opportunities.
Temporary disruptions to Thames Promenade will alter east west access across the Mornington Peninsula Freeway.	— The construction program should minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours where possible.

IMPACT	MITIGATION
Disruptions to bus routes 811 and 812 along Lower Dandenong Road resulting in longer travel times or changed time table for students of Parkdale Secondary College.	— Liaise with families of students attending Parkdale Secondary College and Aspendale Gardens Primary School, about altered access and disruptions. — Liaise with local bus companies to minimise impacts to timetables, existing routes and bus stops.
No adverse impacts are anticipated for the development or implementation of policies or strategies relevant to this assessment.	— Continue to liaise with City of Kingston to ensure that the design reflect local priorities and conditions. In particular, consider the objectives and priorities of *Council's Public Health & Wellbeing Plan 2013-2017* and plans for enhanced cycle network and improved infrastructure.
Changed traffic conditions associated with the construction of multiple projects.	— Implement a comprehensive approach to the coordination of construction traffic management with the Edithvale and Bonbeach Level Crossing Removal project. — Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches.

1 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

This social assessment identifies the potential for social impacts to local communities arising from the Mordialloc Bypass project (the project). This assessment, in conjunction with other technical studies will inform the preparation of an Environment Effects Statement (EES) for submission to the Victorian Minister for Planning for consideration during the planning approvals process.

1.2 SCOPE OF THIS ASSESSMENT

This investigation comprised the following tasks:

- Review of government policy and legislation.
- The study area for this investigation is based on the selection of Statistical Area Level 1 (SA1) geographical areas from the Australian Bureau of Statistics (ABS) Census of Population and Housing in closest proximity to the project footprint.
- Demographic profiles of the existing residential community used data from the 2016 Census of Population and Housing at the SA1 level and other relevant data sources including Victorian Department of Environment, Land, Water and Planning, '.id social atlas', and information from the websites of the City of Greater Dandenong and City of Kingston.
- This assessment does not consider impacts on worker or business communities. A separate Economic Impact Assessment has been prepared concurrently to inform the EES.
- Identification of existing community facilities and services, places of special interest, significant community activities and access patterns for residential communities within the study area. This assessment does not investigate access to privately provided services or consider service capacity or demand.

The structure of this report is broadly guided by the *Scoping Requirements for Mordialloc Bypass EES* (Scoping Requirements) (May 2018).

1.3 ASSUMPTIONS AND LIMITATIONS

The following list outlines the constraints and assumptions made in the preparation of this assessment:

- Details of the project are current as of August 2018.
- This assessment has been guided by the Scoping Requirements.
- This assessment was undertaken as a desktop study relying on publicly available information and consultation feedback provided by the Major Road Projects Authority (MRPA)[1], and targeted interviews undertaken by WSP. WSP has not directly participated in public consultation activities undertaken by MRPA (see Chapter 7: *Consultation and stakeholder engagement* of this EES).

[1] The proponent for the project is Major Road Projects Authority (MRPA). MRPA is responsible for the planning and delivery of the project, but once completed the operation and maintenance responsibilities would be handed over to VicRoads. VicRoads also retains ownership of land required for road purposes.

- The audit of facilities does not consider service provision, demand for function or fitness for purpose of individual facilities.
- This investigation does not assess potential impacts to private businesses, commercial, industrial and agricultural land uses, or impacts to the local economy.
- This assessment has been prepared as part of a suite of technical investigations. While external impacts such as changing land use, business impacts, land acquisition and local traffic or economic changes may also impact on the local community, this is not included in the scope of this report and may be addressed in other technical studies provided as part of this EES.

1.4 PROJECT DESCRIPTION

The project is the proposed construction of a new freeway connecting the Dingley Bypass with the Mornington Peninsula Freeway. It is to be constructed within an existing road reservation. The project passes between the western boundary of Braeside Park and the eastern boundary of the Woodlands Estate (constructed) wetlands, traverses constructed wetlands at Waterways and approaches to within one kilometre of the Ramsar-listed Edithvale-Seaford Wetlands. The northern and southern ends of the project pass through or border the South East Green Wedge.

The project corridor is approximately 9.7 km in length, comprising two, two-lane 7.5 km-long carriageways (with a path for walking and cycling) along the greenfield alignment. A further 2.2 km of roadworks is required to integrate the project with the Mornington Peninsula Freeway. It is expected that each carriageway will provide for two 3.5 m-wide lanes, with a 3.0 m-wide outside shoulder and 1.0 m-wide inside shoulder. The project will also provide connections from the freeway onto the Dingley Bypass, Centre Dandenong Road, Lower Dandenong Road, Governor Road, Springvale Road and new north facing ramps at Thames Promenade. There will also be an overpass at Old Dandenong Road. Mordialloc Creek and the associated Waterways wetlands will be spanned by twin 400 m-long bridges.

The proposed alignment allows for a future upgrade of the project to a six-lane freeway standard road within the construction footprint.

The proposed alignment is generally located within the existing road reservation, most of which is already covered by Public Acquisition Overlay (PAO), and some of which is already in VicRoads' ownership.

1.4.1 PROJECT FEATURES

The project area is shown in Figure 1.1. The proposed project consists of:

- Four-lane freeway standard cross-section (two lanes in each direction), divided by a centre median
- 100 km/hr posted speed limit
- Full diamond interchanges at Springvale Road, Governor Road and Lower Dandenong Road whereby Mordialloc Bypass is elevated over the arterial roadway with northbound and southbound entry and exit ramps providing access for all directions of travel
- Half single point urban interchange at Centre Dandenong Road whereby Mordialloc Bypass is elevated over Centre Dandenong Road and southbound entry and northbound exit ramps provide accessibility to and from the south
- Addition of northbound entry and southbound exit ramps at the existing Mornington Peninsula Freeway interchange at Thames Promenade to provide access to and from Mordialloc Bypass. The existing interchange provides ramps to and from Mornington Peninsula Freeway to the south only. The proposed entry and exit ramps will create a full diamond interchange at Thames Promenade
- An at-grade T-signalised intersection at Dingley Bypass
- Elevation of the bypass over Old Dandenong Road and Bowen Parkway to maintain existing connectivity on these routes

- Shared use path running north-south along the length of the project and connecting existing paths along the north side of Dingley Bypass and the south side of Springvale Road adjacent to Chelsea Heights Hotel
- Bus queue jump lanes provided in intersection configurations at the proposed Springvale Road and Centre Dandenong Road interchanges.

1.4.2 RESIDENTIAL ACQUISITION

A PAO is in place across the entire project alignment, except for a small area north of Lower Dandenong Road that is already owned by VicRoads.

Land within the project area is predominantly owned by VicRoads, Melbourne Water and the DELWP. However, a small number of parcels are under private ownership.

Privately owned lots include areas used for horticulture, commercial and industrial uses, and access to adjacent private uses. These uses are not considered in this assessment.

There are two dwellings impacted by the proposed design, one is a derelict dwelling associated with a business that is currently trading. The second dwelling is partially on VicRoads land managed by Parks Victoria as part of Braeside Park. The reference design avoids direct impacts to the office for Braeside Park staff, and impacts on the surrounding sheds and structures.

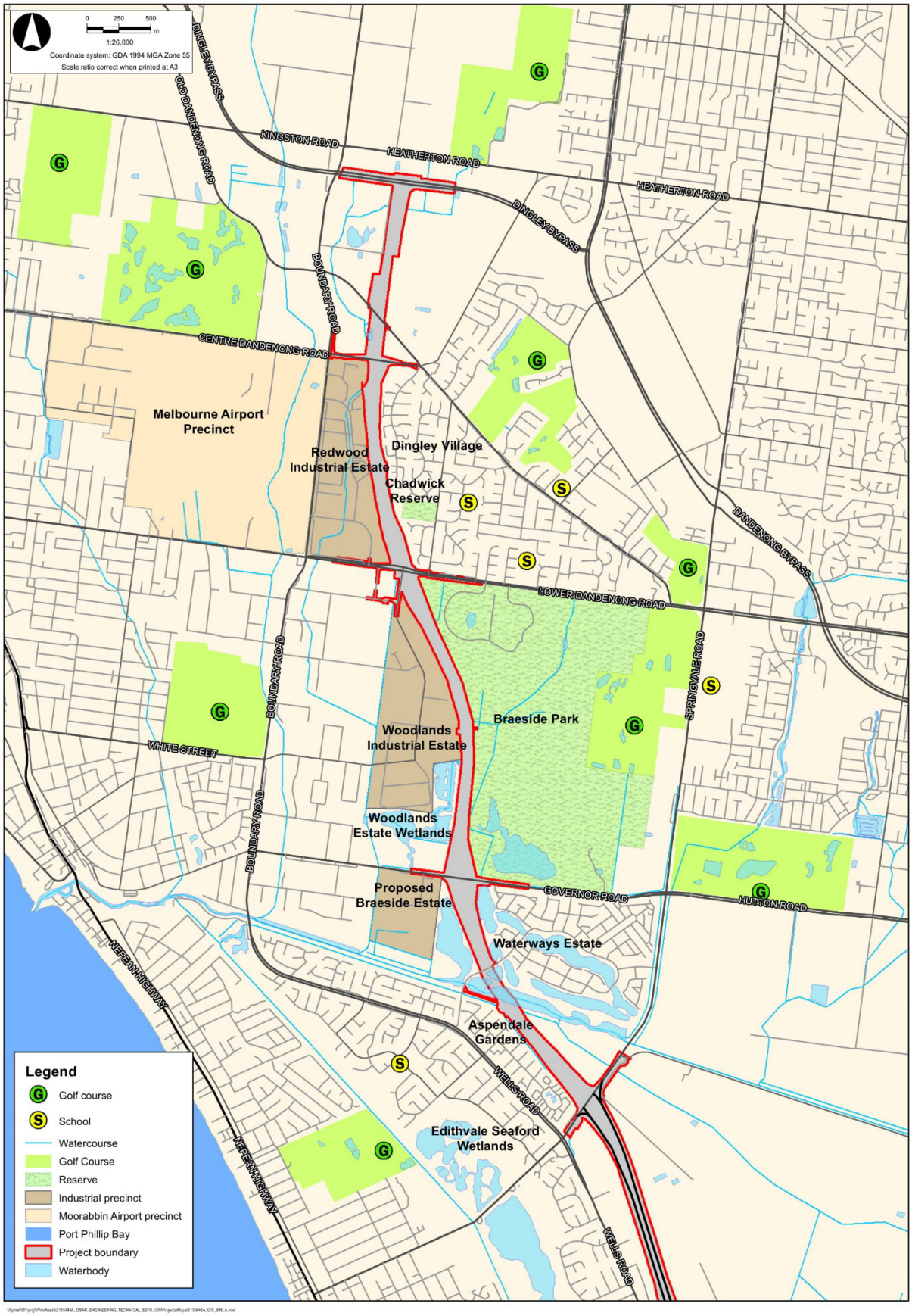


Figure 1.1 Mordialloc Bypass project map

2 EES OBJECTIVES AND REQUIREMENTS

2.1 PROJECT OBJECTIVES

The proposed project aims to ease delays and improve safety in one of outer Melbourne's fastest growing areas and will provide:

- Better connections to the Dandenong National Employment and Innovation Cluster and industrial areas in Braeside and Moorabbin
- Improved access to local residential and recreational centres
- Less traffic on Springvale Road, which will improve bus services
- A shared walking and cycling path, offering more travel options.

2.2 EES SCOPING REQUIREMENTS

Scoping Requirements have been prepared by DELWP on behalf of the Minister for Planning. The Scoping Requirements set out the matters to be investigated and documented in the EES. It is noted that, under the *Environment Effects Act 1978* and Ministerial Guidelines for Assessment of Environmental Effects (Ministerial Guidelines) (DSE 2006, p.2), 'environment' includes physical, biological, heritage, cultural, social, health, safety and economic aspects.

Section 4.6 of the Scoping Requirements directs the following aspects to be investigated with regard to potential social, land use and infrastructure impacts.

Draft evaluation objective

To minimise potential adverse social and land use effects, including impacts on existing infrastructure and open space.

Key issues

- *The potential for dislocation due to severance causing reduced access to social networks and community facilities.*
- *Temporary restrictions to access to regionally significant open spaces, including Braeside Park.*
- *The potential for effects on the landscape and recreational values of neighbouring areas including the Mordialloc Creek, Waterways and Braeside Park environs from the project, in particular elevated structures, such as a bridge (or bridges) over the Mordialloc Creek and the Springvale Road-Mornington Peninsula Freeway interchange.*
- *The potential for changes to the existing infrastructure in the project area and in its vicinity.*

Priorities for characterising the existing environment

- *Describe the demographic and social character of residential communities in the vicinity of the project, as well as local movement patterns and any places with particular community, recreational or cultural significance.*
- *Characterise the landscape, existing viewshed and recreational values of the Mordialloc Creek, Waterways and Braeside Park environs and other relevant areas.*
- *Identify any existing infrastructure, land use plans or related objectives for land within, adjacent to or affected by the project, including for the Edithvale-Seaford Wetlands, Waterways and Braeside Park.*

Design and mitigation measures

- *Identify potential and proposed design responses and measures to minimise adverse social and land use effects.*
- *Identify potential and proposed design options and measures to mitigate adverse effects on the landscape values and associated recreational values of Waterways, Braeside Park and Mordialloc Creek environs.*

Assessment of likely effects

- *Assess the potential effects on communities living near the project, in terms of potential dislocation, severance or reduction in access to social networks, community facilities and valued places.*
- *Evaluate the consistency of the project with the policies and provisions of the Kingston and Greater Dandenong Planning Schemes and other relevant land use planning strategies.*
- *Assess the likely effects on the landscape and recreational values of Waterways, Braeside Park and Mordialloc Creek environs and other relevant areas.*

Approach to manage performance

- *Describe any further measures that are proposed to enhance social outcomes, and either manage risks to landscape and recreational values, or enhance visual amenity outcomes for residents living in the vicinity of the project, including as part of the EMF.*

2.3 PUBLIC SUBMISSIONS TO THE DRAFT SCOPING REQUIREMENTS

The Draft Scoping Requirements were placed on public exhibition in March/April 2018. During this time, over 60 public submissions were received. Submissions were considered and informed the final Scoping Requirements issued in May 2018.

2.4 THEMES FOR ASSESSMENT

It is noted that many themes identified within the Section 4.6 of the Scoping Requirements have been addressed through other technical investigations including a visual impact assessment and land use and planning investigation.

This social assessment will consider the existing conditions of the study area and residential communities with respect to the following:

- Dislocation, loss and/or severance of residential areas, community facilities, valued places or open space
- Disruption or changes to local access routes and/or connections
- Alignment of project objectives and design with relevant community strategies, policies and plans
- Cumulative impacts.

The following assessment report has been prepared to respond to the four themes outlined above.

3 LEGISLATION AND POLICY

A review of relevant policies and strategies found that state, metropolitan and local government policies, strategies and plans relevant to this investigation generally support the objectives of the project and align with its anticipated benefits. In particular, the project will improve access to, through, and around employment centres in Melbourne's outer suburbs, and green wedges.

The shared user path enhances opportunities for local connections, active transport, and health and wellbeing. Enhancing and formalising networks for non-vehicle traffic also supports an integrated transport network.

Table 3.1 Summary of legislation and policy review

POLICY/LEGISLATION	RELEVANCE
State/metropolitan	
Transport Integration Act 2010 (Vic)	The Victorian *Transport Integration Act 2010* (Vic) sets out a social and economic inclusion objective that advocates that a "transport system should provide a means by which persons can access social and economic opportunities to support individual and community wellbeing".
Victorian Cycling Strategy 2018-28	The *Victorian Cycling Strategy 2018-28* seeks to increase the number, frequency and diversity of Victorians cycling for transport by: — Investing in a safer, lower-stress, better-connected network, prioritising strategic cycling corridors — Making cycling a more inclusive experience.
Victorian State Planning Policy Framework	The Victorian *State Planning Policy Framework* (SPPF) seeks to ensure that the objectives of planning in Victoria are encouraged through land use and development policies. It is included within the planning schemes of all local governments. The SPPF aims to "*integrate relevant environmental, social and economic factors in the interests of net community benefit and sustainable development*". It states that "*Planning should ensure an integrated and sustainable transport system that provides access to social and economic opportunities, facilitates economic prosperity, contributes to environmental sustainability, coordinates reliable movements of people and goods, and is safe*". The relevant clauses within the SPPF include: — Clause 9: Plan Melbourne — Clause 11: Settlement — Clause 18: Transport — Clause 19: Infrastructure. It is considered that the project aligns with the requirements in the SPPF and in particular with the objectives outlined in the relevant clauses for settlement, transport and infrastructure.

POLICY/LEGISLATION	RELEVANCE
Metropolitan/regional	
Plan Melbourne 2017-2050	Plan Melbourne 2017-2050 (Plan Melbourne) provides the strategic direction to shape the city and state over the coming 35 years; it is given effect through the Victoria Planning Provisions and local planning schemes. Metropolitan planning strategy Plan Melbourne 2017-2050 identifies outcome 3: "Melbourne has an integrated transport system that connects people to jobs and services and goods to market". Plan Melbourne Refresh includes the following key directions: — Transform Melbourne's transport system to support a productive city — Improve transport in Melbourne's outer suburbs — Improve access to jobs across Melbourne and closer to where people live — Create neighbourhoods that support safe communities and healthy lifestyles — Create a city of 20-minute neighbourhoods. These directions have associated policies relating to improving arterial road connections across Melbourne, specifically improving roads in growth areas and outer suburbs. The project seeks to improve productivity and efficiencies, and provide greater access to jobs, services and markets.
South East Melbourne Group of Councils Plan	The 2015 *South East Melbourne Group of Councils Plan* was prepared incorporating feedback from the City of Greater Dandenong and City of Kingston. The plan identifies delivering jobs and investments, housing, environment and a more connected community as priorities for the South East Melbourne Region. The plan also recognises transport issues faced across the region, including a lack of efficient and sustainable transport link. It notes in particular that "east-west road links are patchy and transport infrastructure falls short in delivering efficient and sustainable transport outcomes for the region".
Local	
Kingston Green Wedge Plan 2012	The *Kingston Green Wedge Plan 2012* identifies the following directions for transport and access: — Establishment of a safe, efficient and attractive road network within, through and around the Kingston Green Wedge — Increased use of public transport as a mode of travel to, from and within the Kingston Green Wedge — Increased use of walking and cycling as a mode of travel to, from and within the Kingston Green Wedge — Pedestrian pathways along roads to link with and complement off road links — Cycle routes along major through roads, and via a linked pathway system from Karkarook Park to Braeside Park — Improvements to public transport timetabling, stop locations, stop facilities and service frequency — The safe and efficient operation of Moorabbin airport as a state transport facility and as an employer — Swift resolution of the Dingley Bypass route and construction — Frequent pedestrian, cycle and habitat underpasses across new roads and freeways in accordance with current design and safety standards.

POLICY/LEGISLATION	RELEVANCE
Greater Dandenong Green Wedge Plan 2014	The *Greater Dandenong Green Wedge Plan 2014* sets out a series of objectives for the future use and management of the Greater Dandenong Green Wedge including the following objectives under the themes of land use, transport and access: — Ensure new uses do not adversely impact on existing land uses or compromise the establishment of future preferred land uses — The movement network supports vehicles and active transport in a safe, efficient and legible manner — Optimise and improve the safety, function and efficiency of movement and linkages to, from and through the Greater Dandenong Green Wedge. Advocate for better public transport coverage.
Public Health and Wellbeing Plan 2017–2021	Kingston's *Public Health and Wellbeing Plan 2017–2021* provides a strategic direction for Council's work to improve the health and wellbeing of the community. Objective 3 seeks a connected community that participates and outlines the following outcomes: — Increase participation in community activities and volunteering; and reduce social isolation — Improve social cohesion — Ensure facilities, services and open spaces are accessible and equitably provided.

4 METHODOLOGY

This assessment was prepared using the following methodology.

- Desktop investigations of existing conditions including:
  - Review of the Scoping Requirements
  - Review of relevant state and local government policy and strategic documents to understand the current role and vision for the local area as well as preferred future directions
  - Demographic profiling of current residential communities within the study area using publicly available data and indicators from the 2016 Census of Population and Housing
  - Review of the local area access network including roads, public transport routes and pedestrian and cycle access to understand how areas are connected and how this influences accessibility for local communities
  - An audit of community facilities, public services and places of special interest drawing on council's database to identify likely locations of community activity and access patterns.
- Development of a relevant assessment framework which considers the existing local context and possible impacts generated by the proposed project.
- Site visit and consultation with City of Kingston, City of Greater Dandenong, and Parks Victoria in March and April 2018, as well as review of feedback provided through community consultation undertaken by MRPA.
- Assessment of potential impacts on local communities against the assessment criteria developed in response to the Scoping Requirements. Recommendation of management and mitigation measures to address impacts identified.

4.1.1 RISK ASSESSMENT

As outlined in the Ministerial Guidelines (DES 2006) and the Scoping Requirements for the project, a risk-based approach was adopted for the EES studies to direct a greater level of effort at investigating matters that pose relatively higher risk of adverse environmental effects. The following definitions were adopted for the assessment:

- ***Environmental impact****:* Any change to the environment as a result of a project activities.
- ***Environmental risk****:* As defined by the Ministerial Guidelines (DSE 2006), *"environmental risk reflects the potential for negative change, injury or loss with respect to environmental assets"*.

The purpose of the risk assessment was to provide a systematic approach to identifying and assessing the environmental risks, including heritage, cultural, social, health, safety and economic aspects as a result of the project. It articulates the likelihood of an incident with environmental effects occurring and the consequential impact to the environment.

The impact assessment and risk assessment processes were integrated throughout the development of the EES. This environmental risk assessment (ERA) process allowed the project team to identify as many environmental risks as a result of the project as possible and refine and target impact assessments accordingly. The impact assessments ensured the project team has a robust understanding of the nature and significance of impacts and the mitigation measures developed to minimise and control those impacts.

The risk and impact assessment processes were essential components of the project design process and in the formulation of construction and additional mitigation measures to minimise environmental impacts. These assessments also underpin the establishment of the Environmental Performance Requirements (EPRs), which set out the desired environmental outcomes for the project.

The below methodology was developed to assess the potential social impacts of the project on study area communities and sets out the process, methods and tools used to complete the impact and risk assessments.

4.1.1.1 RISK ASSESSMENT METHODOLOGY

The risk assessment was a critical part of the EES process as it guided the level and extent of impact assessment work required, and facilitated a consistent approach to risk assessment across the various technical disciplines. The risk assessment process was based on the approach defined in ISO 31000:2018 Risk Management – Principles and Guidelines, which describes an environmental risk management process which is iterative and supported by ongoing communication and consultation with project stakeholders.

SCOPE AND BOUNDARIES

The ERA assessed all project phases, namely: initial phase (the current approvals and concept design stage); construction phase; and operations and maintenance phase. The risk process evaluated environmental risks that would result from the development of the project based on the concept designs for the project, the draft construction methodology and the existing conditions of the study area, as well as the draft environmental impact assessment reports which were in development during the ERA.

RISK IDENTIFICATION

To effectively and comprehensively recognise all potential environmental risks that may result from the project, it was necessary to identify impact pathways for all project activities during all its project phases. An impact pathway is the cause and effect pathway or causal relationship that exists between a project activity and an asset, value or use of the environment.

Environmental impact pathways were identified under two categories:

- **Primary environmental impacts**: The impacts to environmental values that are directly attributable to project activities within a cause and effect paradigm. Project activities cause environmental impacts (effects) on environmental values through an environmental impact pathway such as construction activities. The assessment of these impacts and their associated risks assumes that all standard mitigation measures are in place and working as intended.
- **Cumulative impacts**: The potential cumulative impacts to environmental values that may result from the implementation of the project. This allowed for the identification of:
  - Secondary environmental risks which may result from the implementation of a risk response in mitigating a primary environmental risk
  - On-site aggregate risks resulting from multiple on-site project activities on an environmental asset (risks were assessed in two ways, as a single project phase and as a whole project risk)
  - Off-site cumulative environmental risks which accounted for potential off-site cumulative impacts of the project in conjunction with surrounding off-site projects in the local area.

RISK ANALYSIS

With risks identified for each discipline, MRPA and industry best practice and standard mitigation controls that are considered intrinsic to a project of this nature were identified, including requirements under relevant sections of the MRPA Standard Specifications, EPA guidelines and Government environmental management policies.

CUMULATIVE EFFECTS

The ERA process also allowed for the assessment of cumulative effects associated with the project. Cumulative effects result from multiple influences/impacts on an environmental asset and can be assessed in two categories.

- **Aggregate**: Where there are multiple activities within the project that impact on a single asset. Aggregate risks were included as additional risk pathways in the risk register.
- **External projects**: current project risks that could, when compounded with those of surrounding projects, lead to an overall increase in the environmental impact of the project. Each impact pathway was reviewed to determine if a potential cumulative effect existed.

RISK EVALUATION

The ERA process developed for the project is based on the risk analysis matrix used on recent and similar MRPA projects, as presented in Appendix A. It follows the standard industry semi-quantitative risk analysis methodology that utilises pre-defined consequence and likelihood criteria as the factors to arrive at a risk rating.

For all risks rated medium, high or extreme in the initial risk rating, technical specialists were required to identify additional controls which could be implemented to further reduce risk and to perform the residual risk rating. Additional controls specify management measures over and above those considered as Standard Controls to ensure the residual risk has been effectively avoided or mitigated to as low as reasonably practicable.

Where risks could not be eliminated or sufficiently reduced (e.g. by engineering controls or re-design), these will typically be addressed by specific conditions in a site Environmental Management Plan (EMP), or be the subject of a separate management plan, including adaptive management plans based on ongoing studies or monitoring.

ENVIRONMENTAL PERFORMANCE REQUIREMENTS

Following the evaluation of risk and through consultation with MRPA, EPRs were developed to define, relevant, achievable and measurable environmental outcomes for the project. The mitigation measures identified during the risk assessment process were used to inform the EPRs and also specify the means by which the EPRs are to be satisfied. The EPRs for social impacts identified through this assessment are referenced in Table 6.1.

5 EXISTING CONDITIONS

A desktop assessment was undertaken to establish the existing social situation with regards to communities in the study area. The following summarises the findings of the desktop investigation, supplemented with addition information collection through consultation with City of Kingston and City of Greater Dandenong, a site visit and visual assessment, and from detailed analysis of feedback collected through community consultation by MRPA.

The following summary establishes existing conditions for the study area communities with respect to the three assessment criteria extracted from the Scoping Requirements included in Section 2 of this report.

5.1 STUDY AREA

For this social assessment, a study area was defined by using SA1 boundaries as defined by the Australian Bureau of Statistics 2016 Census of Population and Housing (Census). The study area defined for this assessment includes geographic communities surrounding the project area.

SA1s are the smallest level of output for the Census and have been used to define local communities likely to be affected by the proposed project. SA1s are population based, usually covering populations of 200-800 people. As such, in areas of low residential density, an SA1 can cover a large geographical area.

The study area lies within the City of Kingston and the City of Greater Dandenong local government areas and transects the suburbs of Heatherton, Dingley Village, Braeside, Waterways, Aspendale Gardens, Chelsea Heights and Bangholme. Study area communities have been identified by the suburbs in which they fall, however, they do not include all residents of those suburbs.

In the north, the study area extends north to Heatherton Road and includes Dingley Village, bounded by Westall Road and the Dingley Bypass in the north east. It extends south to Wells Road/Mornington Peninsula Freeway, incorporating Braeside Park, Waterways Estate, and parts of the south east green wedge including areas of Bangholme in the east.

A map displaying the SA1s (shaded in grey) comprising the study area is displayed in Figure 5.1. The white dashed lines indicate the suburb boundaries within the study area.

Figure 5.1 Mordialloc Bypass EES Social Impact Assessment study area defined by SA1 boundaries

5.2 STUDY AREA COMMUNITIES

The study area includes a mix of residential, industrial and sparsely populated areas.

The major residential centres in the study area are Dingley Village and Waterways, as well as small areas in Aspendale Gardens, Chelsea Heights and Heatherton. These residential centres are identified as areas of socio-economic advantage.

The study area also includes non-residential areas such as Braeside Park and the Braeside industrial precinct, and Bangholme, which comprises part of the south east green wedge.

A demographic profile of each study area community is provided in Appendix B.

Community profiles assist in determining the type and level of demand generated for various types of community facilities and services, and provide insight into communities that are likely to be less resilient or more vulnerable to change.

In the context of this review, vulnerable communities are assumed to be those with higher rates of, or multiple indicators of, socio-economic disadvantage, reduced mobility (e.g. lower car ownership, reduced access to public transport), or greater reliance on local facilities and services.

Vulnerable communities may include higher proportions of unemployed residents, lower average household incomes, and higher proportions of elderly residents (aged 70 years and over), family households with school aged children and/or infant children, single parent families, or large communities of newly arrived migrants.

The following summarises the indicators of vulnerability identified in study area communities.

- **Family households:** Areas with higher proportions of children aged 0 to 4 years are likely to experience comparatively higher demand for local family and children's services, including Maternal and Child Health (MCH), kindergartens and primary schools. These areas may also have increased demand for pedestrian and cycle connectivity and public transport access as secondary school-aged children begin to travel independently.
  In the study area, the Aspendale Gardens community has a high proportion of school aged children and Waterways has high proportions of both infant and school-aged children.
- **Elderly residents**: Areas with significantly higher proportion of elder residents (aged 70 years and over), may experience greater demand for accessible community services, non-car transport and aged care accommodation. Areas with higher proportions of retirees and old-age pensioners can also correspond to a greater incidence of low income and lone person households. Areas with significantly higher proportions of elderly residents also include residential aged care facilities and retirement communities. It is assumed that these facilities are likely to be self-contained, provide essential services on site, and operate private resident transport services.
  In the study area, the communities of Aspendale Gardens, Chelsey Heights, Dingley Village and Heatherton have high proportions of elderly residents.
- **Low income households**: Low income households and areas with lower rates of household car ownership are reliant on services within their local area or good public transport connectivity to access higher level services and facilities and employment opportunities.
  In the study area, the communities of Aspendale Gardens, Braeside, Chelsea Heights and Dingley Village have high proportions of low income households. Chelsea Heights is the only community that is identified as an area of relative socio-economic disadvantage using SEIFA indices.

5.2.1 IDENTIFIED VULNERABLE COMMUNITIES

Based on the demographic profile, a site visit and discussions with Council, vulnerable communities have been identified in:

- Aspendale Gardens – a higher proportion of school-aged children, elderly residents, and low-income households.
- Chelsea Heights – higher proportions of elderly residents, low income households and unemployment likely to be attributed to the residential aged care facility.
- Dingley Village – higher proportions of elderly residents, low income households and lone person households to the east of the project area.
- Heatherton – a higher proportion of elderly residents.
- Waterways – higher proportion of infant and school aged children, and family households.

5.3 COMMUNITY VALUES AND LOCAL ISSUES

A review of feedback from community consultation, policy and strategic documents and discussion with council has informed the following summary of values and issues emerging in each study area community.

Table 5.1 Summary of community values

COMMUNITY	VALUES AND CHARACTER	LOCAL ISSUES EMERGING THROUGH CONSULTATION
Heatherton	Characterised by industrial development and green wedge uses, including golf courses and passive open space.	No issues identified.
Dingley Village	Dingley Village has a strong identity and residents are proud of their community. The area is largely self-contained, with a good range of local services. However, City of Kingston discussions indicate that the area lacks activities and opportunities for youth engagement. Places of significance to the local community include public open space assets and Christ Church Dingley. Dingley Village has been identified as a community susceptible to impacts due to comparatively high proportion of low income households and a higher proportion of elderly residents.	The Peninsula Kingswood Country Golf Course, a private facility located to the east of Centre Dandenong Road, is subject to a proposal for a new master planned residential community. This proposal has angered some groups within the community who consider the Golf Club to be a public open space asset. Council is currently consulting with community to identify opportunities to provide new or improved public facilities as part of the proposed development. Consultation undertaken by MRPA found that maintaining local access is generally prioritised over potential visual impacts, and that congestion and changed traffic conditions are key concerns for local residents. Maintaining access and traffic flow on Old Dandenong Road was of particular importance to the residents of Dingley Village.
Braeside	Characterised by industrial uses to the west of the project area and the regionally significant Braeside Park to the east.	Braeside Park is a significant open space resource for both local and regional communities. The park also includes the Dingley Village Men's Shed with roughly 150 members. The Autism Plus facility, located on the western boundary of the reserve, provides day programs for adults with high support needs. Clients of this services may be sensitive to local environment features such as noise, lights, and vibration. The service also has offices in Cranbourne North, Croydon and Melton. Day programs can be offsite to assist with life skills and community access.

COMMUNITY	VALUES AND CHARACTER	LOCAL ISSUES EMERGING THROUGH CONSULTATION
Waterways	Waterways is a comprehensive, master planned community with a higher proportion of family households. Waterways is an enclosed community, with only three connections to the local and arterial road network and surrounding areas (Springvale Road, Governor, Bowen Parkway). Springvale Road is the primary entrance/exit and currently the only signalised intersection providing access to Waterways. The Waterways community is characterised by the wetlands in the development's west and its uniform residential character. It is clearly delineated from surrounding communities, with signage, landscape and design treatments, gated entrances and open space buffers Built around an internal road and path network, Waterways offers more opportunities for recreational walking and cycling than typically found elsewhere in the study area.	City of Kingston has recently approved the installation of a signalised intersection at the Governor Road entrance to Waterways to provide a second controlled entrance and exit point. Access from Bowen Parkway is restricted to 'left in, left out' onto Wells Road. Waterways has a large population of newly arrived residents, particularly from China. In many cases, this can result in higher risks of social isolation and disengagement for residents who do not have established social connections through work or school networks. The centre of the Waterways community is the Nest Café, a private enterprise co-located with a range of community facilities such as a playground, public post box and community notice board. Emerging from a community request, City of Kingston has recently approved the development of a community garden in Waterways, the first community led initiative in the development.
Aspendale Gardens and Chelsea Heights	Predominantly residential areas.	Connections to the beach are very important to residents of Aspendale Gardens
Bangholme	Predominantly vacant green wedge land.	No issues raised.

5.4 ACCESS AND MOVEMENT

5.4.1 SERVICES, FACILITIES AND PLACES OF SIGNIFICANCE

A database of communities and facilities provided by City of Kingston has been mapped to visualise the distribution of facilities, services and places of interest surrounding the study area. Maps were prepared under six categories: open space and recreation, education, community spaces, youth, family and children's services, and health, disability and aged care. Maps are attached as Appendix C of this report.

This exercise was undertaken to expand on and ground truth the preliminary audit included in the existing conditions study.

Overall, community services and facilities in and around the study area are concentrated in the major activity centres and areas of higher residential population density, primarily Mordialloc, Aspendale Gardens, Aspendale and Dingley Village. Notably, no services are located within Braeside, Waterways or Bangholme.

Discussions with City of Kingston have identified that, where services and facilities are not provided locally, communities are more likely to travel to centres to their north or south, rather than east-west across the project area. The exception to this is the residential community of Waterways, which tends to access services in Aspendale Gardens or Edithvale.

The following provides a summary of the distribution and gaps in community facilities and services based on discussions with City of Kingston and mapping of the detailed facility database.

Table 5.2 Assessment of the distribution of community services and facilities in the study area

STUDY AREA COMMUNITY	PROVISION OF COMMUNITY FACILITIES
Heatherton	The area of Heatherton has a small and dispersed residential population. This area includes two golf courses and active open space resources for local communities to the north and wider region. Community spaces and meeting places, such as sports pavilions and places of worship, provide opportunities for social interaction.
Dingley Village	Dingley Village is essentially a self-contained community with a substantial provision of services for families and young children, as well as residential aged care facilities. However, Dingley Village does not have a local secondary school and has limited facilities and activities for youth. Discussions with Council have indicated that youth disengagement is a prominent risk in this area. The 2016 Census indicated the majority of secondary school aged residents of Dingley Village attend government schools, followed by catholic schools. Dingley Village falls within the government school zone for Parkdale Secondary College, which is located to west of the study area. Local and regional active and passive open space is well provided for in Dingley Village and Braeside Park to the south. Two golf courses are located in Dingley Village and are valued for their open spaces and are considered by residents to be part of the character of the local area. However, the Peninsula Kingswood Country Golf Club, a privately-owned facility, has recently been sold and is subject to a planned residential development. This has resulted in concern amongst some sectors of the community who considered the golf course as a local open space asset. City of Kingston is currently consulting with community to identify opportunities to minimise impacts resulting from the closure of the golf course such as the development of new community facilities or public open space assets.
Braeside	No council provided services or facilities are provided in Braeside industrial area. However, the industrial precinct in the west of the study area includes a cluster of commercial, health and community services including the Autism Plus facility which provides respite day programs for adult with high support needs, Cheltenham Youth Club and Salvation Army Kingston Gardens. Braeside Park provides a valuable and well used regional open space asset with access from the south off Governor Road or the north off Lower Dandenong Road.

STUDY AREA COMMUNITY	PROVISION OF COMMUNITY FACILITIES
Waterways	Passive open space is well provided and well used throughout the Waterways development including wetlands and pedestrian and cycle trails. These elements of open space are central to the character of the Waterways Estate. The freeway corridor passes to the north and west of the Waterways wetland area and is not currently delineated by signage or fencing. It is likely that this area is considered by residents as part of the open space provision of the Waterways Estate and is used for passive recreation. Braeside Park is adjacent to the Waterways Estate at Governor Road and accessible via the southern entrance at Red Gum Picnic Area Road. Although not identified in Council's facility audit, the Nest @ Waterways Café operates as a community hub and meeting place in Waterways. Located on the central lake, this privately-operated facility provides a casual meeting space for social interaction as well as a community notice board and is co-located with an Australia Post mail box, children's play equipment and boardwalk. The facility provides parking on site, accessible entry and is open 8 am–5 pm seven days a week. Discussions with City of Kingston have identified that a community garden has recently been approved within the Waterways Estate following request from a resident group. Council notes that this is the first community led initiative to be implemented in Waterways. No other facilities are provided within the Waterways estate. The Waterways Estate falls inside the zone for Aspendale Gardens Government Primary School. Demographic data from the 2016 Census of Population and Housing indicates more primary school-aged residents of Waterways attend a government primary school than catholic and independent schools combined. As such, it is assumed that Waterways residents travel to Aspendale Gardens for schooling, and it is likely they would also rely on this centre for other essential services and daily requirements. This is further supported by the connections from Waterways to the local and arterial road network which provide convenient access to Aspendale Gardens and Edithvale via Springvale Road and Bowen Parkway. Mordialloc is also easily accessible from Governor Road and is likely to provide services that are not available in Aspendale and Edithvale.
Aspendale Gardens and Chelsea Heights	The study area includes a small area of both Chelsea Heights and Aspendale Gardens. These areas are largely self-contained or have convenient access to neighbouring centres of Aspendale and Edithvale. Residents are likely to travel to Mordialloc for services not available in the local area and it is not anticipated that they rely heavily on access to centres east of the study area. The Edithvale Wetlands and Aspendale coastal area are significant open space assets for residents of these areas and contribute strongly to the local character and sense of community.

5.4.2 BARRIERS

Geographical barriers affect the way communities move through and relate to their local and regional environment. Barriers may take a variety of forms and may include:

- **Physical barriers** such as infrastructure and built form including, roads, railway lines, bridges or walls.
- **Topographical barriers** such as rivers, coast lines, mountains or vegetation.
- **Land use barriers** such as industrial or heavy commercial land uses, large open spaces or exclusion zones.
- **Perceived barriers** such as areas perceived to be unsafe, have a bad reputation or are exclusive to specific groups.

Some places of significance can also act as attractors or anchors for some communities. These may include services and facilities for specific cultural or linguistic groups, or facilities that experience high demand because of their good reputation in the local community. In some instances, these factors may reduce the influence of geographical barriers. However, this assessment does not include consideration of attractors.

A review of geographical barriers in and around the study area can indicate likely community catchments and access patterns. From this, assumptions can be made regarding the level of cohesion or isolation between communities in the study area.

It is noted that the Mordialloc Bypass road reserve acts as a geographical barrier and often delineates the boundaries between different land uses. In addition, the following major barriers have been identified in the region of the Mordialloc Bypass study area:

- Kingston Green Wedge
- Major open space resources and natural assets including:
  - Edithvale-Seaford Wetland Environmental Area
  - Braeside Park
  - Multiple private and public golf courses
  - Mordialloc Creek
  - Waterways wetland
- Commercial and industrial uses:
  - Southland Shopping Centre, Cheltenham
  - Braeside, Dingley Village and Keysborough industrial area
  - Moorabbin Airport
- Major arterial roads including Boundary Road, Centre Dandenong Road, Lower Dandenong Road, Governor Road, Wells Road, Springvale Road, and Dingley Bypass.

These geographical barriers inform the following assessment of community facility and service provision.

5.4.3 VALUED PLACES

The City of Kingston and City of Greater Dandenong are home to a number of social and cultural attractions that draw both tourists and the local community. As well as a number of local sites of significance, the study area and surrounding region also acts as the gateway to the major tourist precincts of Mornington Peninsula, Westernport Bay, Phillip Island and the Dandenong Ranges. These nationally recognised destinations draw significant numbers of tourists through the region, particularly in peak holiday season.

Much of the study area is predominantly post-war greenfield development and, as such, lacks substantial historical and cultural infrastructure. However, there are some local sites of significance that act as social anchors for the community. Major sites identified in this assessment are listed below. They include:

- Moorabbin Airport
- Kingston Green Wedge
- Braeside Park
- Edithvale-Seaford RAMSAR wetlands
- Golf clubs.

5.4.3.1 PLACES OF INTERCULTURAL SIGNIFICANCE

The City of Kingston and City of Greater Dandenong include many CALD communities. Many of these communities have established cultural anchors such as places of worship and celebration that provide a focal point for their communities. These places attract not only those living in the local area, but also people from further afield in the region and the metropolitan area. Some places of significance are listed below.

- Gurdwara Sri Guru Granth Sahib, Keysborough
- Turkish Islamic Cultural Centre and Mosque, Keysborough
- Dhamma Sarana Buddhist Temple, Keysborough
- AUMSAI Sansthan Temple, Mordialloc.

5.4.4 SIGNIFICANT COMMUNITY ACTIVITIES

Festivals and events play and important role in building connection and promoting diversity in the community. The City of Kingston and City of Greater Dandenong host several large and small events throughout the year. Significant annual events are listed in Table 5.3.

Table 5.3 Annual community activities

EVENT	DATE	LOCATION
Globe to Globe festival	January	Clayton South
Mordialloc food and wine festival	March	Mordialloc
Carrum Beats & Eats	May	Carrum
Springvale Snow Fest	July	Springvale
Around the Bay in a Day	October	Kingston foreshore
Carols by Kingston	December	Highett
Keysborough Fire Parade Santa Run	December	Keysborough

5.4.5 OPEN SPACE PROVISION

Open spaces are valued community assets within City of Kingston and City of Greater Dandenong. A review of relevant local government strategies and plans can provide insight into values, relationships and use of open space, and how changes to access and provision may impact local communities. This section reviews open space strategies relevant to the study area.

5.4.5.1 KINGSTON

The *Kingston Open Space Strategy Update* was prepared in 2012. It identified 559 hectares of open space across the municipality and sets a benchmark of 2.4 hectares of open space per 1,000 people.

Provision of open space in suburbs comprising the study area generally exceeds council's benchmark. Braeside Park is the primary open space resource for residents south of Dingley Village and north of Waterways. Residents of Aspendale Gardens and Chelsea Heights have access to Edithvale-Seaford Wetlands and Chelsea Bicentennial Park. The Waterways Estate also includes wetlands.

It is also noted that the coastal environment to the west of the study area is a key open space resources and is central to the character and amenity of the bayside suburbs including Aspendale, Mordialloc, Parkdale, Edithvale, Mentone and Cheltenham. While this falls outside the study area, discussions with council have emphasised the importance of east-west connections to coastal open space and the Edithvale Wetlands for local communities as part of the local character.

In addition to public open space provided and managed by Council or Parks Victoria, it is noted that golf courses, both public and privately operated, contribute strongly to the open space character of the study area and surrounds. Around the study area, golf courses are located Heatherton, Dingley Village, Aspendale, Mordialloc, Braeside, Clayton South and Keysborough.

5.4.5.2 GREATER DANDENONG

Places for People: Open Space in Greater Dandenong identifies approximately 580 hectares of land owned or managed by the Council for public open space within the municipal area, equating to approximately 4.3 per cent of the gross municipal area. There are also significant areas of privately owned open space located in the region, such as golf courses. At the time of preparation, the open space strategy identified an additional 73 hectares of open space to be provided through new developments in Keysborough and Dandenong South.

In the southern part of the municipality there has historically been relatively less demand for open space, as this area largely comprises green belt and rural areas. The southern part of the municipality also includes green wedge zoned land which provides for a range of non-urban land uses including recreation, landscape protection, resource utilisation, farming, flora and fauna and conservation.

5.4.6 LOCAL ACCESS NETWORK

Vehicle access (roads), public transport, and cycling and pedestrian facilities provide local access within the study area.

5.4.6.1 VEHICLE ACCESS

The south-east region of Melbourne has a large network of tollways, freeways and major arterial roads connecting inner Melbourne to the outer fringes and rural shires. The region is likely to have a high rate of car dependence due to a rapidly growing population and a deficit in public transport and multi-modal travel options. The region's position between metropolitan Melbourne and the Mornington Peninsula places additional burden on the local network, which serves as a thoroughfare for tourists accessing the Mornington Peninsula and Bass Coast areas. Large areas of green space and farm land, such as the Kingston Green Wedge, golf courses, Braeside Park and the Seaford-Edithvale Wetlands, also restricts access between settlements and town centres.

The project follows an existing road reserve connecting the Dingley Bypass to Mornington Peninsula Freeway. It intersects the existing road network at Old Dandenong Road, Centre Dandenong Road, Lower Dandenong Road, Governor Road, Bowen Parkway, Springvale Road/Edithvale Road. All roads intersected by the freeway route are important arterials connecting communities, business and centres to the east and west of the study area.

In the south of the study area, Thames Promenade passes east-west under the Mornington Peninsula Freeway. Currently, only north bound traffic can access Thames Promenade from the Mornington Peninsula Freeway existing freeway. To the west, Thames Promenade crosses Bicentennial Park and connects residential communities of Chelsea Heights with the Chelsea activity centres and Chelsea Beach. To the east, Thames Promenade ends at the intersection with River End Road providing access to Jolong Park, an equestrian facility providing education, agistment, training, a club house and events.

East-west access under the Mornington Peninsula Freeway is particularly important for residents of the Waterways Estate given their reliance on services and facilities in Aspendale and Mordialloc and the limited access points between the estate and the local and regional road network.

The primary entrance to Waterways is from Springvale Road, with secondary entrances onto Governor Road and via Bowen Parkway. City of Kingston has recently approved the installation of a signalised intersection at the northern entrance to Waterways on Governor Road to accommodate increasing demand and to address congestion for residents entering and leaving the estate. Bowen Parkway is a small local access route which connects Waterways to the neighbouring Palm Grove Estate and further east to provide a left in/left out access to Wells Road.

In addition to providing access for Waterways residents, Springvale Road is a key connection for residents to the north and east of the study area to the bayside areas and Mornington Peninsula.

Lower Dandenong Roads is an important connection for secondary school students in Dingley Village attending Parkdale Secondary College.

5.4.6.2 PUBLIC TRANSPORT

Public transport in the study area is largely provided through a range of bus services, as well as rail services to the east and west.

RAIL SERVICES

There are no rail lines passing through the study area. However, the Frankston rail line follows the Port Phillip Bay foreshore and services the communities to the west of the study area. The Cranbourne and Pakenham lines service communities to the east of the study area. These railways lines are amongst Melbourne's busiest and often face issues with service and capacity shortages. However, major works being undertaken around Dandenong seek to alleviate some of this pressure. A regional V-line service also operates along the Dandenong-Pakenham corridor connecting Traralgon and Gippsland to the metropolitan region.

It is noted that Level Crossing Removal Works associated with the Edithvale and Bonbeach Level Crossing Removal project will commence shortly on the Frankston Line. While the project will deliver safety and efficiency improvements over time, construction works are likely to temporarily increase pressure on the local road network in the short term and will impact rail patronage. Furthermore, the potential for overlap in construction timeframes of the Mordialloc Bypass and Edithvale and Bonbeach Level Crossing Removal project is noted with respect to possible cumulative impacts.

BUS SERVICES

Bus routes servicing communities to the west of the freeway reserve predominantly connect residential areas to the major centres of Mentone, Mordialloc, Edithvale, Chelsea and Carrum. Additionally, 13 bus routes service the Southland Shopping Centre in Cheltenham. To the east of the study area, local buses most commonly service the Clayton, Springvale and Noble Park railways stations.

There are significantly fewer public transport options which support east-west or north-south travel across the study area. Options are limited to bus routes travelling along the major arterials of Boundary Road, Lower Dandenong Road, Centre Dandenong Road, Kingston Road, Springvale Road and Governor Road.

Night bus services connect Southland Shopping Centre with communities as far south as Carrum and Clayton Station via Kingston Road.

The 811 and 812 bus routes connect Dingley Village to Parkdale Secondary College.

5.4.6.3 CYCLE AND PEDESTRIAN CONNECTIVITY

The south and eastern region of Melbourne has a fragmented bicycle and trail-path network. As is common in many outer suburbs, the study area includes limited options to use alternative transport modes, particularly over long distances. Much of the existing cycling and pedestrian trail network runs through parks and along waterway reservations, and is primarily used for recreation rather than transportation.

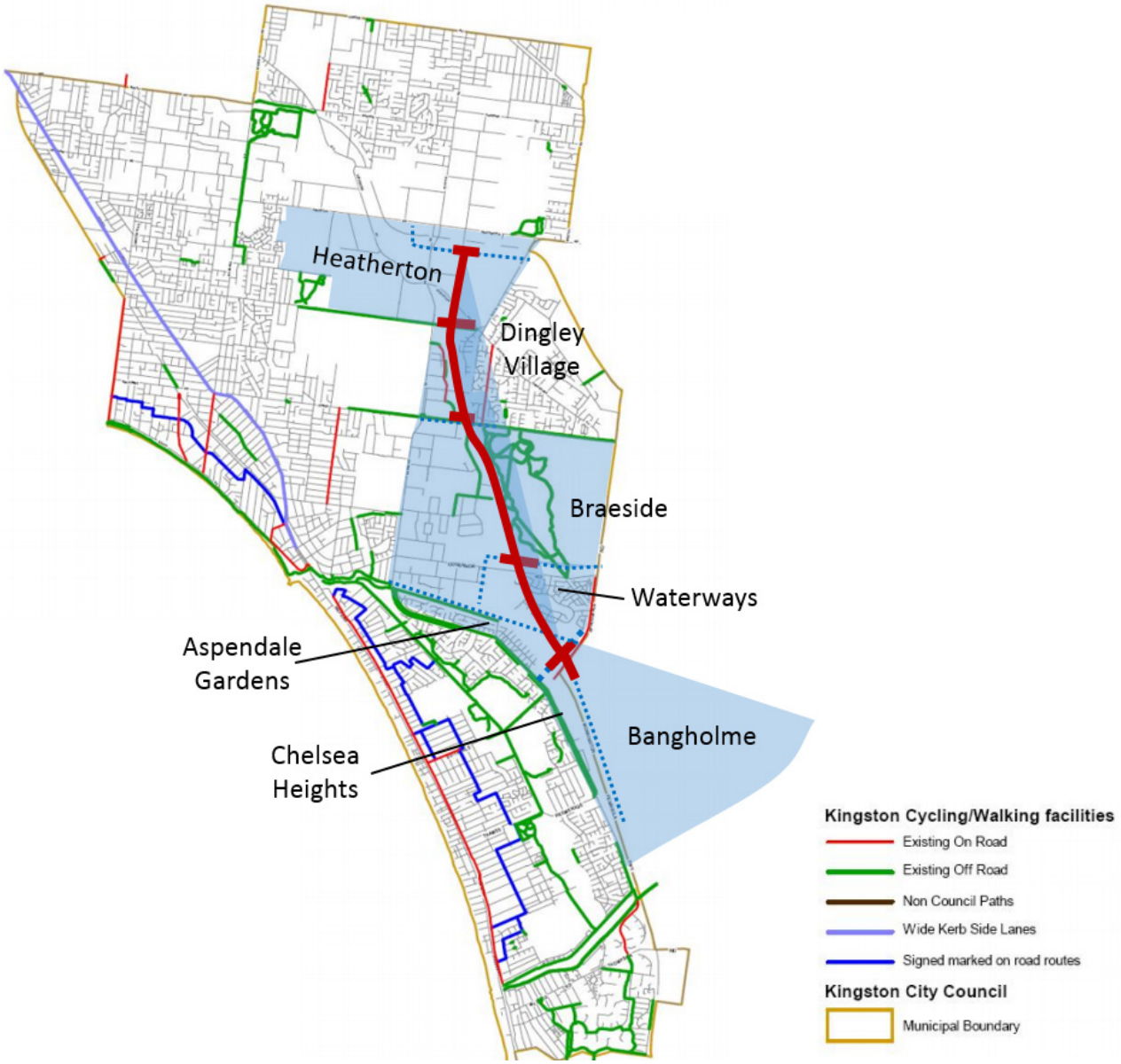
Figure 5.2 shows the existing bicycle and pedestrian network in the City of Kingston in 2008 against the study area (shaded blue). It shows that the on-road routes and marked lanes are constrained within the foreshore suburbs and focus generally on linking local residential areas to railway stations and activity centres. Off-road facilities are predominantly recreational and are largely located around open space resources such as Braeside Park. An off-road trail crosses the study area along Lower Dandenong Road.

Although not identified in the plan, an informal trail crosses the project area in Braeside connecting the industrial precinct and Braeside Park at Park Way.

The City of Greater Dandenong has a further 98 kilometres of off and on-road cycling paths including the Eastlink and Dandenong Creek trails. An existing off-road shared path travels along the Eastlink corridor and an on-road path is marked on Springvale Road. Existing pedestrian paths are also provided along the same route. No new routes are

proposed in the study area in the *Greater Dandenong Walking Strategy 2015-23* and the *Greater Dandenong Cycling Strategy 2016-23*.

The Waterways Estate includes a network of recreational shared use paths around the internal wetland and lakes. Bowen Parkway also provides a path linking to the Palm Grove Estate west of Waterways. This route is also the most direct connection for Waterways residents accessing services in Aspendale Gardens, including the Aspendale Gardens Primary School.



Source: Kingston Cycling and Walking Plan 2009-2013

Figure 5.2 City of Kingston existing on/off road cycling and walking facilities (2008)

6 RISK ASSESSMENT

An environmental risk assessment process was undertaken to provide a systematic approach to identifying and assessing the project's environmental risks, including social, cultural heritage and economic. It articulates the probability of an incident with environmental effects occurring and the consequential impact to the environment.

The project adopts the following definitions:

- **Environmental impact** is described as any change to the environment as a result of a project activities
- **A risk** is usually expressed in terms of the likelihood (potential) and consequence of a that change.

Impacts to the social environment can be summarised into two categories:

- Compulsory land acquisition
- Land access issues for local land users.

The primary environmental risks identified through this social assessment are provided in the Table 6.1.

The residual risk ratings presented below for both project and cumulative impacts consider standard inherent controls listed in Attachment I: *Environmental risk assessment report* of this EES. The additional controls listed in the tables below are those recommended by this assessment to further mitigate and minimise the primary environmental risks which were risk rated as medium or above. Primary environmental risks scored as low did not require additional controls to be applied.

Also included in the Table 6.1 are identified project related cumulative risks.

Table 6.1 Social Environmental Risk Assessment register

RISK ID	IMPACT PATHWAY	PRIMARY ENVIRONMENTAL RISK DESCRIPTION	ADDITIONAL MITIGATION / CONTROLS	EPR	RESIDUAL RISK		
					Consequence	Likelihood	Rating
S1	Compulsory land acquisition	Permanent alteration or severance of existing local movement patterns and access to/from private land	No additional controls identified	S1	Minor	Unlikely	Low
S2	Land access issues for local land users	Temporary alteration or severance of existing local movement patterns and access to/from private land	Implement recommendations of SIA Refine design to minimise changes/alterations to existing road networks	S1 T2	Moderate	Unlikely	Medium
S3	Land access issues for local land users	Temporary loss of or change of access to open space, facilities or local networks	Implement recommendations of SIA. Refine design to minimise changes to access to open space, facilities, networks.	S1 S2	Moderate	Unlikely	Medium
S4	Land access issues for local land users	Residents and land users temporarily displaced and change to local community and population	Not required	S1	Minor	Unlikely	Low
S5	Land access issues for local land users	Permanent alteration of existing local movement patterns and access to/from private land	Not required	S1	Minor	Possible	Low

6.1.1 CUMULATIVE RISK

A review of projects in the area was undertaken to inform an assessment of cumulative social risks including:

- Edithvale-Bonbeach Level Crossing Removal project:

  The Edithvale and Bonbeach Level Crossing Removal project will involve lowering the existing railway line into a trench and building a new Edithvale Road bridge at the current road level. Construction is planned to commence in 2019, with completion anticipated in 2022.

- Moorabbin Airport redevelopment:

  The most recent master plan for the Moorabbin Airport was developed in 2015 and lays out a strategy for the economic expansion of the airport over the next 20 years. The airport, which specialises in flight training, employs approximately 3,300 people and has an economic value of $340 million annually, which the master plan aims to increase to 8,500 people and $835 million respectively. Increasing levels of development are expected in this area in response to the master plan.

- Hawthorn Football club redevelopment

  The Hawthorn Football Club development includes the construction of a two-storey training and administration building and up to five ovals on a former landfill site. Construction is projected to commence in 2020 and the project is anticipated to be completed by 2022.

- Kingswood Dingley Village project:

  The Kingswood Dingley Village project proposes to redevelop the existing Kingswood Golf Course into a 760-lot residential community. An application for rezoning of the site is in progress. A commencement date for construction has not yet been publicised; however, the Peninsula Kingswood Country Golf Club will vacate the site in April 2019.

Considering project local, timeframe and possible impacts, only the Edithvale-Bonbeach Level Crossing Removal project was identified as having potential to contribute to social cumulative risk for residents and communities investigated in this assessment.

7 IMPACT ASSESSMENT AND MITIGATION

This section provides an assessment of the main social impacts likely to occur as a result of the construction and operation of the project. In line with the scoping requirements, these impacts can be categorised into four general categories:

- Dislocation of community facilities and/or services or open space
- Disruption or changes to local access routes and/or connections
- Alignment with policy
- Cumulative impacts.

Construction activities are likely to increase noise, vibration and dust, and result in changes to the visual amenity for residents and other sensitive receptors located near the project area. Impacts related to amenity, while acknowledged in this assessment, are discussed in detail in Appendix D: *Landscape and visual impact assessment*, Appendix E: *Noise and vibration impact assessment*, and Appendix F: *Air quality impact assessment* of this EES.

7.1 DISLOCATION

Dislocation occurs when land is acquired and residents or people/members of the community who use the land are displaced, or where acquisition or changing environments render existing uses unviable or untenable.

Dislocation can be temporary, such as during construction or in transitional phases, or may be permanent.

7.1.1 POTENTIAL EFFECTS OF THE PROJECT

The project would not require acquisition of residential properties, dwellings, community facilities or open space. The project would use land that is predominately within the Mordialloc Bypass road reserve and owned by VicRoads, and would not encroach on any existing residential or community uses.

Although a Public Acquisition Overlay (PAO) is in place and the project would occupy land predominantly owned by VicRoads, the vacant road reserve is currently accessible to the public and creates a permeable boundary and informal connection between communities to the east and west. The reserve is also utilised by people for passive recreational activities.

7.1.2 POTENTIAL SOCIAL IMPACTS OF THE PROJECT

7.1.2.1 CONSTRUCTION

Construction of the project would discontinue informal recreational use of this road reserve and would close what is currently a permeable and publicly accessible space.

Construction of the project on the road reserve would also introduce a physical, impassable barrier to the west of the Waterways Estate (which is currently bordered by the open road reserve) and would discontinue or alter pedestrian and bicycle connections between Braeside Park and the adjacent industrial estate.

Autism Plus has advised that changes to the local environment resulting from construction impacts, such as noise, vibration and lights, may temporarily impact programs provided at their Dingley Village head office location, requiring the programs to be moved to an off-site location.

7.1.2.2 OPERATION

Construction will permanently alter the informal use of the vacant road reserve as an informal open space and will discontinue recreational uses, as well as east-west access where the project is built at grade. However, an elevated roadway as part of the project design will ensure that east-west access is retained in the areas to the west of Waterways, and some passive open space is provided for local communities. This feature would also allow informal linkages to residential areas to the west to be retained.

Operation of the project may impact how residents of suburbs in the study area perceive their local area, particularly those directly adjacent to the project. Changes to amenity and liveability (discussed further in Appendix D: *Landscape and visual impact assessment*, Appendix E: *Noise and vibration impact assessment*, and Appendix F: *Air quality impact assessment* of this EES), combined with the permanent loss of the informal open space existing previously when the road reserve was vacant, could potentially alter residents sense of place. This may also affect how surrounding communities perceive the area. Demographic data shows that some communities in the study area, such as Aspendale Gardens and Waterways, have a high proportion of family households with infant and school aged children. These people could be expected to be concerned about changes to their local residential environment. The potential for indirect displacement as a result of changes to amenity and sense of place would be moderated, however, by the fact that residents moved to the study area in full knowledge that use of the road reserve for a bypass of Mordialloc has been planned for many years.

7.1.3 MITIGATION

The following mitigation measures are recommended to manage dislocation impacts:

- Ensure that communities are notified well in advance of construction and changes to access to ensure that any informal use of the existing road reserve is safe for communities.
- Liaise with local communities to understand how they use, and what they value about the existing reserve, and what uses can be accommodated elsewhere or incorporated into the design of publicly accessible spaces.
- Retain east-west access and open spaces under elevated structure and through pedestrian and cycle crossing points.
- Continue to liaise with Autism Plus throughout construction to provide notice of planned construction activities that may generate significant levels of noise, light or vibration. In the event that programs are temporarily relocated off site, investigate opportunities to provide transport for client residing locally.
- Continue to liaise with Autism Plus to investigate opportunities for client to be involved during construction, such as tree planting programs or employment opportunities.

7.1.4 OVERALL ASSESSMENT OF IMPACT

Some dislocation of existing informal activities undertaken in the road reserve is certain to occur both during construction and operation of the project.

Impacts are expected to me most severe during construction, including loss of access and reduction in informal open space for passive recreation and east-west connectivity.

Operational impacts will be less severe as open space is retained under elevated road structures.

Changes to amenity and liveability arising from the project may alter residents sense of place and lead them to relocate.

7.2 DISRUPTION

Disruption impacts occur when people's ability to move around their locality to access desired places or services is reduced (Cramphorn and Davies 2004). Disruption effects occur when local roads are cut off, connector roads are changed or suffer increased traffic movements, or when public transport routes or services are changed. This affects the functioning of the community.

7.2.1 POTENTIAL EFFECTS OF THE PROJECT

During construction, the project will disrupt and alter the existing local access network, in particular the major east-west arterials of Dingley Bypass, Centre Dandenong Road, Lower Dandenong Road and Governor Road. Intersections with these roads will be signalised, and will continue to operate with minimal change following construction.

A full diamond interchange will be installed at the intersection of Springvale Road and the Mornington Peninsula Freeway, with existing access retained following construction.

Bowen Parkway will be retained with the freeway constructed overhead. A shared user path will be provided to enhance and formalise local cycle and pedestrian connectivity, and maintain access to Braeside Park from the west of the project area via an underpass from Park Way.

North-facing ramps will be installed at Thames Promenade, providing a new connection to the Mornington Peninsula Freeway.

7.2.2 POTENTIAL SOCIAL IMPACTS OF THE PROJECT

7.2.2.1 CONSTRUCTION

It is anticipated that most disruption impacts would be experienced during the construction period and would be temporary. Changes to local road networks during construction would likely create delays, diversions and potential frustration for local communities. Communities and travellers with limited access to alternative routes, such as the residents of Waterway Estate and secondary school students travelling between Dingley Village and Parkdale Secondary College, would be most affected.

Waterways Estate residents would experience direct and indirect impacts from construction works. Usual access routes are likely to be temporarily restricted while lane closures are constructed, which would likely increase travel time for residents during peak construction periods, potentially resulting in disruption to Bowen Parkway and the western entry points to the Waterways Estate.

Construction works at Thames Promenade may create some temporary disruptions for east-west traffic travelling between residential and commercial areas in Chelsea and Chelsea Heights and Jolong Park equestrian facility.

Lower Dandenong Road is a key route for bus routes connecting Dingley Village with Parkdale Secondary College. Disruptions to the 811 and 812 bus routes may result in increased travel time or changes to bus timetables for students relying on these services.

7.2.2.2 OPERATION

Access routes into the Waterways Estate will be indirectly affected by changed traffic conditions during operation. However, these changes will be positive as the project will deliver a number of benefits related to local movement and access, including:

- Enhanced cycle and pedestrian access through formalised shared user paths along the proposed bypass corridor, including links to Braeside Park
- Signalised pedestrian crosswalks incorporated at the proposed freeway interchanges would provide additional north–south pedestrian crossing points and enhance safety for pedestrians and cyclists

- Reduced traffic and congestion on existing arterial roads would improve connectivity and provide better travel times for local vehicle and public transport users
- The addition of new north-facing ramps from the Mornington Peninsula Freeway would improve access to the Thames Promenade, Chelsea, Chelsea Heights and Jolong Park equestrian facility.

These findings confirm the expectations of participants in consultation undertaken by MRPA who viewed the project as a local social benefit as it will facilitate vehicle, bicycle and pedestrian movement in and around the study area, including improved access to community, recreational, cultural and other valued places.

7.2.3 MITIGATION

The following mitigation measures are recommended to manage disruption impacts:

- Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches.
- Project communications should be prominently displayed in local hubs and places of community activity.
- The construction program should minimise and avoid disruptions where possible, and keep them to a minimal timeframe when avoidable. Construction management should seek to maintain existing travel patterns and behaviours wherever possible.
- Continue to consult with communities regarding disruptions, the impact of changed traffic conditions and identify opportunities to carry out works at night or during off-peak times to minimise disruptions.
- Ensure that pedestrian and cycle access is retained wherever possible during construction to enable local communities to access safe and convenient active modes of transport (particularly within the Waterways Estate and access to Braeside Park).
- Consult with local communities early and throughout to inform the design of the shared user path and landscaping element in response to community needs.
- Liaise with families of students attending Aspendale Gardens Primary School with regard to altered access and disruptions.
- Liaise with local bus companies to minimise impacts to timetables and existing routes and bus stops.

7.2.4 OVERALL ASSESSMENT OF IMPACT

Disruption impacts would be experienced during the construction period, however, would be temporary.

The project would deliver a significant number of benefits in terms of improved local movement and access during operation.

7.3 ALIGNMENT WITH POLICY

7.3.1 POTENTIAL EFFECTS OF THE PROJECT

Investigations for a freeway of Mordialloc have been ongoing for many years and the proposed project has long been a consideration for state and local government planning. As such, relevant strategic and policy documents reviewed for this assessment have been prepared with the freeway in mind and align with the project objectives.

7.3.2 POTENTIAL SOCIAL IMPACTS OF THE PROJECT

No adverse impacts are anticipated for the development or implementation of policies or strategies relevant to this assessment.

Like any major infrastructure project, the freeway provides an opportunity to leverage other state, local and community plans and strategies for enhanced community outcomes. Community consultation should focus on opportunities to promote community benefit through improved environment, health and community connectivity.

In addition to assisting in the delivery of a cohesive strategic vision, a coordinated approach also offers the potential to address and mitigate cumulative impacts from other projects. Project coordination also encourages community participation and interaction between sectors of the community that may not otherwise have the opportunity to collaborate.

7.3.3 MITIGATION

Although no adverse impacts are identified, the following is recommended to ensure the project continues to align with policy:

- Continue to liaise with City of Kingston throughout planning and development of the project to ensure that the design reflects local priorities and conditions. In particular, consider the objectives and priorities of Council's *Public Health & Wellbeing Plan 2013-2017* and plans for enhanced cycle network and improved infrastructure.

7.3.4 OVERALL ASSESSMENT OF IMPACT

No impacts are anticipated against this criterion. This criterion reflects business as usual under a good practice approach.

7.4 CUMULATIVE IMPACTS

7.4.1 POTENTIAL EFFECTS OF THE PROJECT

This assessment has identified that the most significant impacts of the project on local communities would occur during the construction phase and would include changed access to social facilities and services (including open space) and disruptions to local access because of traffic diversions and construction traffic. Potential cumulative impacts on the community are similarly anticipated to result from changed traffic conditions associated with the construction of multiple projects.

7.4.2 POTENTIAL SOCIAL IMPACTS OF THE PROJECT

The most significant local project to potentially aggravate the construction effects of the project would be the Edithvale and Bonbeach Level Crossing Removal project. As identified in Appendix A: Traffic Impact Assessment of this EES, there is potential for an overlap in construction programs with the nearby Edithvale and Bonbeach Level Crossing Removal project. As Edithvale Road is planned as a construction (haulage) route for the Edithvale and Bonbeach Level Crossing Removal project, potential cumulative impacts on the capacity and function of Springvale Road, Wells Road and Mornington Peninsula Freeway could be induced should construction of the projects take place during the same

timeframe. Consequent traffic delays and impacts on local accessibility may have a temporary impact on the liveability of communities near project construction.

Potential cumulative impacts on amenity that have the potential to affect the community are covered elsewhere in this EES (Appendix D: *Landscape and visual impact assessment*, Appendix E: *Noise and vibration impact assessment*, and Appendix F: *Air quality impact assessment* of this EES).

7.4.3 MITIGATION

The following mitigation measures are recommended to manage cumulative social impacts:

- Implement a comprehensive approach to the coordination of construction traffic management with the Edithvale and Bonbeach Level Crossing Removal project.
- Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches.

7.4.4 OVERALL ASSESSMENT OF IMPACT

Cumulative impacts from other projects are not expected to be significant. Impacts on local vehicle and public transport users should be managed through coordination with neighbouring project developers and by implementing a detailed and targeted consultation plan.

7.5 SUMMARY OF IMPACTS AND MITIGATION

Table 7.1 provides a summary of the recommended mitigation measures to address the identified social impacts specific to the project.

Table 7.1 Summary of impacts and recommended mitigation

IMPACT	PROJECT STAGE	MITIGATION	RESPONSIBILITY
Loss of informal recreation space and connections to surrounding communities.	Construction Operation	— Ensure that communities are notified well in advance of construction and changes to access to ensure that any informal use of the existing road reserve is safe for communities. — Liaise with local communities to understand how they use and what they value about the existing reserve, and what uses can be accommodated elsewhere or incorporated into the design of publicly accessible spaces. — Retain east-west access and open spaces under elevated structure and through pedestrian and cycle crossing points.	MRPA

IMPACT	PROJECT STAGE	MITIGATION	RESPONSIBILITY
Changes to local access networks during construction are likely to create delays, diversions and frustration for local communities and through traffic.	Construction	— Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches. — Project communications should be prominently displayed in local hubs and places of community activity. — The construction program would minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours wherever possible.	MRPA (partnering with Council) Contractor
Usual access routes into the Waterways Estate (Governor Road, Springvale Road, Bowen Parkway) will be either directly or indirectly affected both by construction works. This is likely to temporarily increase travel time and congestion for residents at peak construction periods, and may potentially result in disruption to Bowen Parkway and the western entry points to the Waterways estate.	Construction	— The construction program would minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours wherever possible. — Continue to consult with communities regarding disruptions, the impact of changed traffic conditions and identify opportunities to carry out works at night or during off-peak times to minimise disruptions. — Ensure that communities are notified well in advance of construction and changes to access.	MRPA Contractor

IMPACT	PROJECT STAGE	MITIGATION	RESPONSIBILITY
During construction, disruptions to Bowen Parkway for vehicle, pedestrian and cycle traffic will constrain the shortest and most convenient access to the Aspendale Gardens Centre, including Aspendale Gardens Primary School.	Construction	— Ensure that pedestrian and cycle access is retained wherever possible during construction to enable local communities to access safe and convenient active modes of transport (particularly within the Waterways Estate and access to Braeside Park). — Liaise with families of students attending Aspendale Gardens Primary School with regard to altered access and disruptions for residents of Waterways. — Consult with local communities early and throughout to inform the design of the shared user path and landscaping element in response to community needs.	MRPA
Restricting access to Bowen Parkways (the most direct route to Aspendale Gardens) will add time and distance to a journey and may encourage greater car dependency during peak construction times when congestion is likely to be greatest.	Construction	— The construction program would minimise and avoid disruptions, where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours where possible. — Seek feedback from local communities regarding the most important aspects of the local road network and investigate opportunities to carry out works at night or during off-peak times to minimise disruptions. — Ensure that pedestrian and cycle access is retained wherever possible during construction to enable local communities to access safe and convenient active modes of transport (particularly within the Waterways Estate and access to Braeside Park).	MRPA
Possible disruptions to day services provided by Autism Plus where nose, light or vibration impacts are significant.	Construction	— Continue to liaise with Autism Plus throughout construction to provide notice of planned construction activities that may generate significant levels of noise, light or vibration. — In the event that programs are temporarily relocated off site, investigate opportunities to provide transport for client residing locally. — Continue to liaise with Autism Plus to investigate opportunities for client to be involved during construction, such as tree planting programs or employment opportunities.	MRPA

IMPACT	PROJECT STAGE	MITIGATION	RESPONSIBILITY
Temporary disruptions to Thames Promenade will alter east west access across the Mornington Peninsula Freeway and	Construction	— The construction program should minimise and avoid disruptions where possible, and keep them to a minimal timeframe when unavoidable. Construction management would seek to maintain existing travel patterns and behaviours where possible.	MRPA
Disruptions to bus routes 811 and 812 along Lower Dandenong Road resulting in longer travel times or changed time table for students of Parkdale Secondary College.	Construction	— Liaise with families of students attending, including Parkdale Secondary College and Aspendale Gardens Primary School, with regard to altered access and disruptions. — Liaise with local bus companies to minimise impacts to timetables, existing routes and bus stops.	MRPA (partnering with local bus companies)
No adverse impacts are anticipated for the development or implementation of policies or strategies relevant to this assessment.	Operation	— Continue to liaise with City of Kingston to ensure that the design reflect local priorities and conditions. In particular, consider the objectives and priorities of *Council's Public Health & Wellbeing Plan 2013-2017* and plans for enhanced cycle network and improved infrastructure.	MRPA (partnering with Council)
Changed traffic conditions associated with the construction of multiple projects.	Construction	— Implement a comprehensive approach to the coordination of construction traffic management with the Edithvale and Bonbeach Level Crossing Removal project. — Prepare a detailed and targeted consultation plan to ensure that residents and local communities are informed well in advance of any disruptions and are regularly updated about ongoing and planned works and alternative routes. Ensure that the consultation plan makes provision for a single point of contact for affected communities, and an avenue to provide feedback on both the construction and consultation approaches.	MRPA Neighbouring project developers

8 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

The EPR's outlined in the table below set out the desired environmental outcomes for the project. The EPRs are applicable to all project phases and provided certainty regarding the project's environmental performance.

Table 8.1 Social Environmental Performance Requirements

EPR NUMBER	EPR	PROJECT PHASE
S1	**Community and Stakeholder Engagement Plan** A Community and Stakeholder Engagement Plan must be prepared in consultation with Kingston City Council and Greater Dandenong City Council prior to the commencement of works (other than preparatory works referred to in the Incorporated Document). The preparation of the plan must give consideration to relevant guidelines and the *Victorian Auditor General Office: Better Practice Guide: Public Participation in Government Decision Making*. The Community and Stakeholder Engagement Plan must: — Identify all project activities that potentially impact on community and business operations, and provide for well-coordinated communication and engagement processes in relation to each activity — Outline key messages — Ensure that project communications and engagement activities reflect the needs and profiles of local communities — Ensure that consultation addresses the needs of vulnerable groups that will be impacted by the project, such as the elderly, socio-economically disadvantaged groups and children — Address the needs of users of community facilities impacted by the project — Set out processes and measures to provide sufficient prior notice to key stakeholders and other potentially affected stakeholders of construction activities (including any staged works, early works, or out of hours works), significant milestones, changed traffic conditions, interruptions to utility services, changed access and parking conditions, and periods of predicted high noise and vibration activities, including contact details for complaints and enquiries — Provide for any interested stakeholder to register their contact details to ensure that they are automatically advised of planned construction activities, project progress, mitigation measures and intended reinstatement measures, where applicable — Include a complaints management process, as specified in EPR EM3.	Pre-construction, construction, operation
S2	**Recreational facilities** Where construction works have a direct impact on the use and enjoyment of recreational facilities, appropriate management measures must be implemented in cooperation with the relevant land manager(s) and affected stakeholder organisations. These measures would include arrangements for the provision of alternative facilities, where required, for the period of disruption.	Construction

EPR NUMBER	EPR	PROJECT PHASE
T2	**Transport Management Plan** Prior to the commencement of works, TMP(s) must be developed and implemented to minimise disruption (to the extent practicable) to affected local land uses, traffic, on-road public transport, pedestrian and bicycle movements and existing public facilities during all stages of construction. The plan(s) will comply with relevant standards and must be developed in consultation with Kingston City Council, Greater Dandenong City Council, VicRoads and public transport providers and be informed and supported by an appropriate level of transport analysis. The plan(s) must include: — A program to monitor impacts of construction activities to all modes of active and passive transport. Where monitoring identifies adverse impacts, practicable mitigation measures must be developed and implemented — Consideration of cumulative impacts of other major projects operating concurrently in the local area — Identify the route options for construction vehicles (including haulage of spoil and other heavy materials to and from the construction site) travelling to and from the project construction site, recognising sensitive receptors, and minimising the use of local streets — Development of suitable measures to ensure emergency service access is not inhibited as a result of project construction activities (in consultation with emergency services) — Provision for the minimisation of impacts on existing connectivity for pedestrians, cyclists, public transport and road vehicles as a result of construction, including the identification of alternative routes for pedestrians and cyclists and other measures to maintain connectivity and safety for pedestrians and cyclists — Management of any temporary or partial closure of roads and traffic lanes, including provision for suitable routes for vehicles, cyclists and pedestrians, to maintain connectivity for road and footpath users — Restrictions to the number of local roads to be used for construction-related transportation to minimise impacts on amenity, in consultation with the relevant road authorities, including at Edithvale Road (EPR B4) — Reinstatement of access to open space, community facilities, commercial premises and dwellings if disrupted, as soon as practicable, and to an equivalent standard — Provision for safe access points to laydown areas and site compounds — A communications strategy to advise affected users, potentially affected users, relevant stakeholders and the relevant road authorities of any changes to transport conditions in accordance with the Community and Stakeholder Engagement Management Plan (EPR S1). The plan must include specific measures for discrete components or stages of the works having the potential to impact on roads, shared use paths, bicycle paths, footpaths or public transport infrastructure.	Construction

EPR NUMBER	EPR	PROJECT PHASE
EM3	**Environmental complaints management** Prior to the commencement of works a process for recording, managing, and resolving complaints received from affected stakeholders must be developed and implemented. The complaints management arrangements must be consistent with *Australian Standard AS/NZS 100002: 2014 Guidelines for Complaint Management in Organisations.*	

9 CONCLUSION

This assessment has been undertaken in response to the *Scoping Requirements for Mordialloc Bypass EES* (May 2018) which stipulates the following objective:

> *To minimise potential adverse social and land use effects, including impacts on existing infrastructure and open space.*

This assessment considered change from the existing situation established through preliminary review and, with respect to disruptions and restricted or altered local access, found that most significant impacts on local communities are anticipated to occur during the construction phase and would therefore be temporary in nature. Informal recreational activities in the road reserve would, however, be permanently dislocated.

The assessment found that the community of Waterways would be particularly susceptible to impacts, as it has limited access points to the arterial road network (Springvale Road, Governor Road, Bowen Parkway), all of which would be directly impacted by construction. While Dingley Village is generally self-sufficient, the assessment found that many secondary school students travel east–west from Dingley Village and are reliant on bus routes servicing Lower Dandenong Road and Centre Dandenong Road, which may be disrupted during construction.

Social impacts during the operational phase, by contrast, are anticipated to be positive with the project to provide improved access and connectivity through reduced traffic volumes and improved pedestrian and cycling routes.

Cumulative impacts from other projects are not expected to be significant, with potential impacts on the community most likely to result from changed traffic conditions associated with the construction of the Edithvale and Bonbeach Level Crossing Removal project.

Mitigation for the social impacts identified in this assessment focusses on early, consistent and transparent communication with affected stakeholders and communities. A detailed and targeted Community and Stakeholder Engagement plan is required to ensure that communications are timely and consistent and meet the needs and requirements of impacted communities. Coordination with neighbouring project developers and proponents is also recommended to manage cumulative impacts on local vehicle and public transport users.

10 LIMITATION STATEMENT

This Report is provided by WSP Australia Pty Limited (*WSP*) for Major Road Projects Authority (*Client*) in response to specific instructions from the Client and in accordance with WSP's proposal dated 24 October 2017 and agreement with the Client dated 14 October 2016 (Contract number 9383) (*Agreement*).

10.1 PERMITTED PURPOSE

This Report is provided by WSP for the purpose described in the Agreement and no responsibility is accepted by WSP for the use of the Report in whole or in part, for any other purpose (*Permitted Purpose*).

10.2 QUALIFICATIONS AND ASSUMPTIONS

The services undertaken by WSP in preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, qualifications, assumptions and limitations set out in the Report or otherwise communicated to the Client.

Except as otherwise stated in the Report and to the extent that statements, opinions, facts, conclusion and / or recommendations in the Report (*Conclusions*) are based in whole or in part on information provided by the Client and other parties identified in the report (*Information)*, those Conclusions are based on assumptions by WSP of the reliability, adequacy, accuracy and completeness of the Information and have not been verified. WSP accepts no responsibility for the Information.

WSP has prepared the Report without regard to any special interest of any person other than the Client when undertaking the services described in the Agreement or in preparing the Report.

10.3 USE AND RELIANCE

This Report should be read in its entirety and must not be copied, distributed or referred to in part only. The Report must not be reproduced without the written approval of WSP. WSP will not be responsible for interpretations or conclusions drawn by the reader. This Report (or sections of the Report) should not be used as part of a specification for a project or for incorporation into any other document without the prior agreement of WSP.

WSP is not (and will not be) obliged to provide an update of this Report to include any event, circumstance, revised Information or any matter coming to WSP's attention after the date of this Report. Data reported and Conclusions drawn are based solely on information made available to WSP at the time of preparing the Report. The passage of time; unexpected variations in ground conditions; manifestations of latent conditions; or the impact of future events (including (without limitation) changes in policy, legislation, guidelines, scientific knowledge; and changes in interpretation of policy by statutory authorities); may require further investigation or subsequent re-evaluation of the Conclusions.

This Report can only be relied upon for the Permitted Purpose and may not be relied upon for any other purpose. The Report does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise. It is the responsibility of the Client to accept (if the Client so chooses) any Conclusions contained within the Report and implement them in an appropriate, suitable and timely manner.

In the absence of express written consent of WSP, no responsibility is accepted by WSP for the use of the Report in whole or in part by any party other than the Client for any purpose whatsoever. Without the express written consent of WSP, any use which a third party makes of this Report or any reliance on (or decisions to be made) based on this Report is at the sole risk of those third parties without recourse to WSP. Third parties should make their own enquiries and obtain independent advice in relation to any matter dealt with or Conclusions expressed in the Report.

10.4 DISCLAIMER

No warranty, undertaking or guarantee whether expressed or implied, is made with respect to the data reported or the Conclusions drawn. To the fullest extent permitted at law, WSP, its related bodies corporate and its officers, employees and agents assumes no responsibility and will not be liable to any third party for, or in relation to any losses, damages or expenses (including any indirect, consequential or punitive losses or damages or any amounts for loss of profit, loss of revenue, loss of opportunity to earn profit, loss of production, loss of contract, increased operational costs, loss of business opportunity, site depredation costs, business interruption or economic loss) of any kind whatsoever, suffered on incurred by a third party.

11 REFERENCES

- Australian Bureau of Statistics, 2016, *Census of Population and Housing*
- Bridget Cramphorn, B., and Davies, R. 2004, The social impact of roads: Social capital and road planning. *Australian Planner*, vol. 41, no. 3., pp. 46-47.
- City of Greater Dandenong, 2009 *Places for People: Open Space in Greater Dandenong.*
- City of Greater Dandenong, 2014, *Green Wedge Management Plan.*
- City of Greater Dandenong, 2015, *Greater Dandenong Walking Strategy 2015-23.*
- City of Greater Dandenong, 2016, *Greater Dandenong Cycling Strategy 2016-23.*
- City of Greater Dandenong, 2017, *Greater Dandenong Planning Scheme.*
- City of Kingston, 2012 *Kingston Green Wedge Plan*
- City of Kingston, 2012 *Open Space Strategy Part 1: Overview.*
- City of Kingston, 2012 *Open Space Strategy Update Part 2: Open Space Analysis and Actions.*
- City of Kingston, 2017, *Kingston Planning Scheme.*
- City of Kingston, 2017, *Public Health and Wellbeing Plan 2017–2021*
- Department of Human Services, 2012, *Metro Access factsheet.*
- .id consulting, 2017, *City of Kingston Community Profile*
- Victorian State Government, 1978, *Environmental Effects Act.*
- Victorian State Government, 2006, *Ministerial guidelines for Assessment of Environmental Effects Under the Environmental Effects Act 1978, Seventh Edition*
- Victorian State Government, 2010, *Victorian Transport and Integration Act.*
- Victorian State Government, 2012, *Plan Melbourne.*
- Victorian State Government, 2015, *Plan Melbourne Refresh Discussion Paper.*
- Victorian State Government, 2017, *Plan Melbourne 2017-2050.*

APPENDIX A

ENVIRONMENTAL RISK ASSESSMENT TOOLS

Environmental Risk Assessment matrix

			LIKELIHOOD				
CONSEQUENCE	Risk Categories		Rare	Unlikely	Possible	Likely	Almost Certain
			A	B	C	D	E
	Catastrophic	5	Medium	High	High	Extreme	Extreme
	Major	4	Medium	Medium	High	High	Extreme
	Moderate	3	Low	Medium	Medium	High	High
	Minor	2	Negligible	Low	Low	Medium	Medium
	Insignificant	1	Negligible	Negligible	Negligible	Low	Low

Environmental Risk Assessment likelihood categories

LIKELIHOOD				
Less than once in 12 months OR 5% chance of recurrence during course of the contract	Once to twice in 12 months OR 10% chance of recurrence during course of the contract	3 to 4 times in 12 months OR 30% chance of recurrence during course of the contract	5 to 6 times in 12 months OR 50% chance of recurrence during course of the contract	More than 6 times in 12 months OR 100% chance of recurrence during course of the contract
The event may occur only in exceptional circumstances	The event could occur but is not expected	The event could occur	The event will probably occur in most circumstances	The event is expected to occur in most circumstances
It has not happened in Victoria but has occurred on other road projects in Australia.	It has not happened in the greater Melbourne region but has occurred on other road projects in Victoria	It has happened in the greater Melbourne region	It has happened on a road project in the region in the last 5 years	It has happened on a road project of similar size and nature in the region within the last 2 years. OR It has happened multiple times on a road project in the region within the last 5 years.

Environmental Risk Assessment consequences descriptors – social

CATASTROPHIC	MAJOR	MODERATE	MINOR	INSIGNIFICANT
— Serious long term environmental impairment of ecosystem functions or long term threat to community health. — High level of public outrage. — Permanent relationship damage — Litigation anticipated	— Major onsite or moderate offsite impact extending over multiple communities or over a long period of time — Major impact on local community or significant involvement of statutory agencies. — Adverse publicity which may impact on reputation — Litigation possible	— Impact extends beyond road reserve. Requires investigation that requires resources to be redirected to complete. — Minor impact on local community or minor involvement of statutory agencies. — Potential for litigation	— Impact confined to within road reserve. — Technical breach of legislation or agreements but limited potential for litigation or abatement notice. — Can be managed through routine activities	— Incident or non-compliance that does not impact on operations — No breach of legislation

APPENDIX B

DEMOGRAPHIC PROFILE OF STUDY AREA COMMUNITIES

STUDY AREA SUBURB	COMMUNITY SUMMARY
Aspendale Gardens	**Total residents**: 2,678 **Total Dwellings**: 969 **Local Government Area:** City of Kingston **Community profile**: — Established low density residential area abutting regional open space resources including the Edithvale wetlands and Kingston Green Wedge. — SEIFA ranking generally indicates relative socio-economic advantage. — Comparatively high proportion of school-aged children (5–17 years). — Concentrated area with a significantly high proportion of elderly residents, older lone person households, low income households and medium density dwellings, which correspond to the Richfield Retirement Village in the south of the study area. — High rates of household car ownership suggest high rates of car dependency. **Geographical barriers:** — North: Mordialloc Creek, Braeside industrial precinct, Mordialloc Bypass reserve, Kingston Green Wedge. — South: Edithvale-Seaford Wetland Wetlands, open space including Yammerbook Nature Reserve, Rossdale Gold Course and Regents Park. — Major arterial roads: Wells Road, Edithvale Road and Bowen Parkway. **Likely service centres**: Aspendale Gardens, Aspendale, Chelsea Heights, Edithvale.
Bangholme	**Total residents**: 189 **Total Dwellings**: 72 **Local Government Area:** City of Greater Dandenong **Community profile**: (*Note: small residential sample size may skew findings presented in community profile)* — Small pockets of low density residential community dispersed throughout green wedge zoned land. — SEIFA data is not available for SA1s in the Greater Dandenong municipal area. — Relatively high proportion of school-aged children (5–17 years) and single parent families. — Comparatively high proportion of unoccupied private dwellings and households with no internet access. — Comparatively high proportion of households of six people of more when compared to other communities within the study area. **Geographical barriers:** — Generally low residential population density and large areas of agricultural land. — North: Mordialloc Creek, Keysborough Linear Reserve. — South: Patterson River. — Major arterial roads: Mornington Peninsula Freeway, Pillars Road and Springvale Road. **Likely service centres**: Chelsea Heights, Chelsea, Keysborough, Carrum Downs.

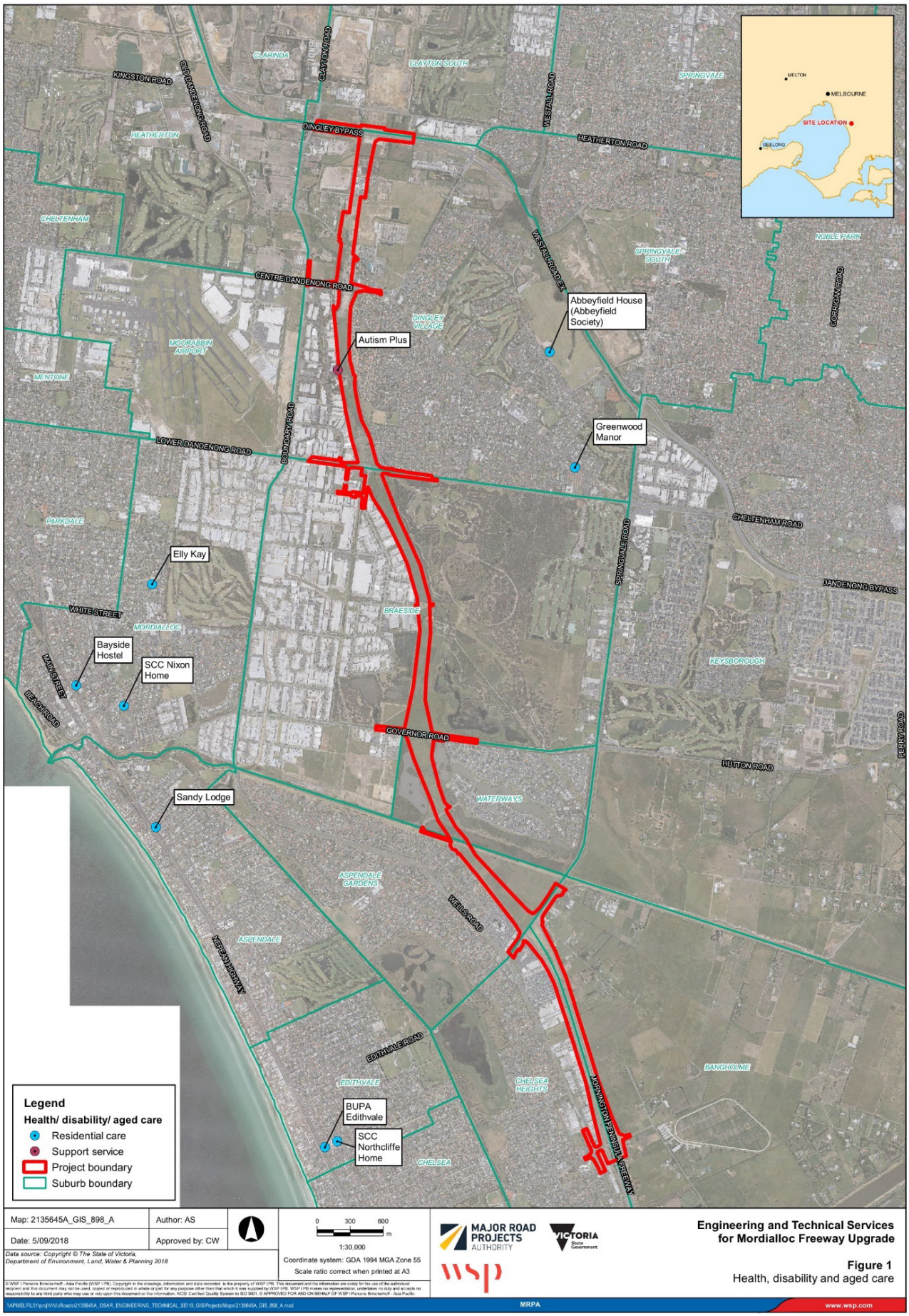
STUDY AREA SUBURB	COMMUNITY SUMMARY
Braeside	**Total residents**: 61 **Total Dwellings**: 22 Local Government Area: City of Kingston **Community profile**: (*Note: small residential sample size may skew findings presented in community profile)* — Predominantly industrial and commercial land uses. — Includes Braeside Park, a major regional open space resource. — Residential community is too small to provide reliable population profile. — SEIFA data is not available for non-residential areas, or areas with nominal residential populations. **Geographical barriers:** — Low residential densities generated by the Braeside industrial precinct and regional open space resources including Braeside Park and the Kingston Green Wedge. — Major arterial roads: Lower Dandenong Road, Springvale Road and Governor Road. **Likely service centres:** Dingley Village, Keysborough, Mordialloc, Aspendale Gardens.
Chelsea Heights	**Total residents**: 273 **Total Dwellings**: 196 **Local Government Area:** City of Kingston **Community profile**: — Narrow stretch of land zoned for commercial use with a consolidated residential pocket comprised of a lifestyle community for residents aged 50 years and over. — SEIFA ranking generally indicates substantial relative socio-economic disadvantage. — Census data indicates that most dwellings are within a 'Caravan/residential park or camping ground'. This can be attributed to the lifestyle community. — Corresponding high rates of unemployment, lone person households, households with no motor vehicle, households with no internet connection, and low income households. **Geographical barriers:** — North and east: Mordialloc Creek, Braeside in industrial precinct, Mordialloc Bypass reserve, Greater Dandenong Green Wedge. — South: Edithvale Wetlands, open space including Rossdale Gold Course and Regents Park. — Major arterial roads: Wells Road, Mornington Peninsula Freeway and Edithvale Road. **Likely service centres:** Chelsea Heights, Chelsea, Keysborough, Mordialloc.

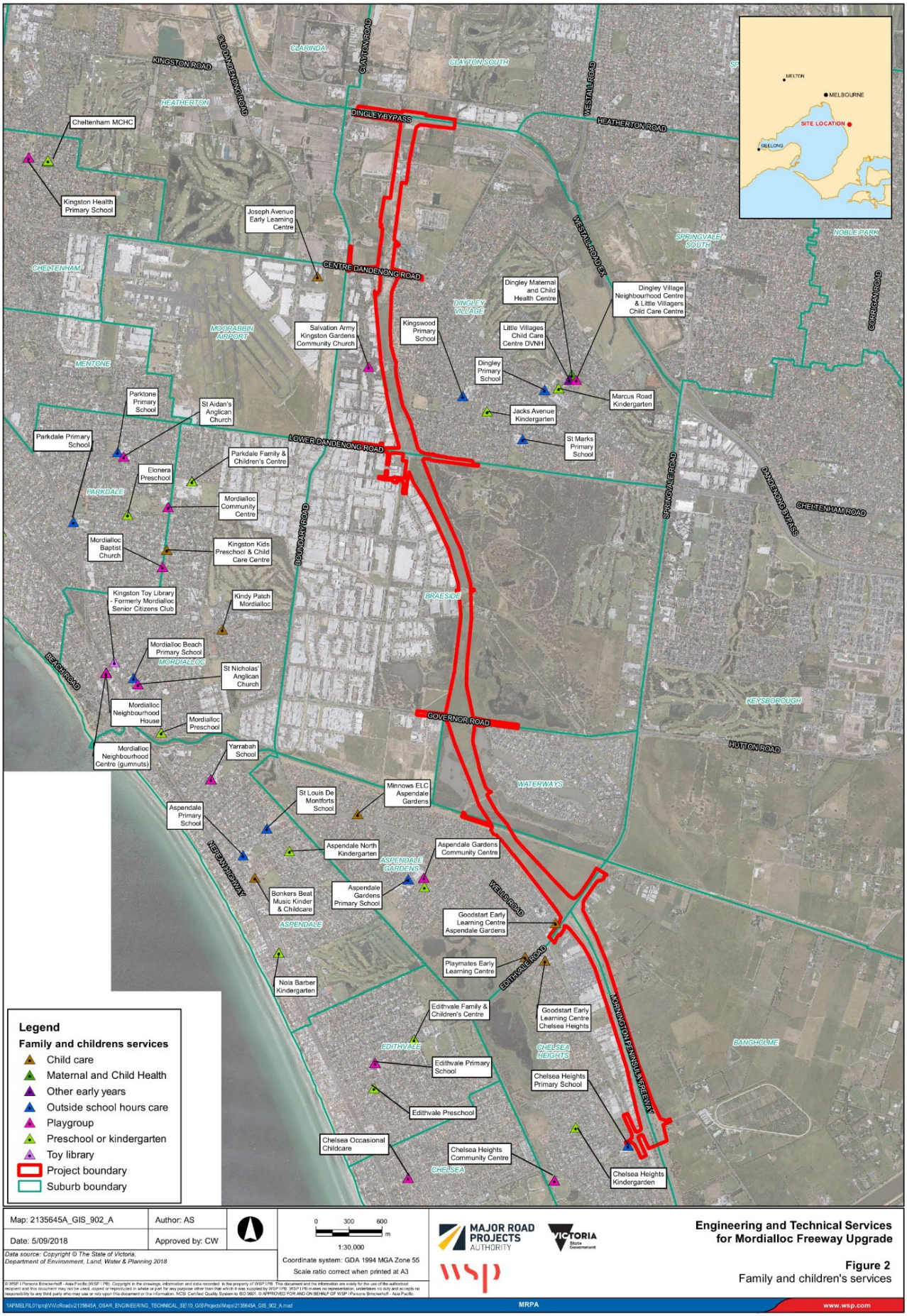
STUDY AREA SUBURB	COMMUNITY SUMMARY
Dingley Village	**Total residents**: 10,288 **Total Dwellings**: 3,981 **Local Government Area:** City of Kingston **Community profile**: — Mixture of established residential area to the west and consolidated industrial land to the east of the freeway road reserve. — High rate of lone person households adjacent to the eastern side of the freeway reserve. — SEIFA ranking generally indicates relative socio-economic advantage. — High rate of low income households and residents aged 70 years and over adjacent to the eastern side of the freeway reserve. — High rates of household car ownership suggest high rates of car dependency. **Geographical barriers:** — The Mordialloc Bypass road reserve passes through Dingley Village, separating the industrial and residential land uses. — Regional open space including Braeside Park and the Kingston Green wedge to the south. — Dingley Village industrial area and Moorabbin Airport to the east. — Major arterial roads: Lower Dandenong Road, Centre Dandenong Road, Boundary Road and Howard Road. **Likely service centres**: Dingley Village, Dingley, Keysborough, Springvale South.
Heatherton	**Total residents**: 214 **Total Dwellings**: 89 **Local Government Area:** City of Kingston **Community profile**: (*Note: small residential sample size may skew findings presented in community profile)* — Small, consolidated pocket of established residential land abutting Green Wedge Zone supporting light industrial and agricultural uses and Special Use Zone used for golf courses. — High rates of unoccupied private dwellings and households with no internet connection. — High proportion of households of six people of more. — High rate of infants. — SEIFA ranking generally indicates relative socio-economic advantage. **Geographical barriers:** — Non-residential uses and open space in the Kingston Green Wedge and adjacent Special Use Zones (golf courses). — Major arterial roads: Old Dandenong Road, Kingston Road, Warrigal Road and Centre Dandenong Road. **Likely service centres**: Cheltenham, Moorabbin.

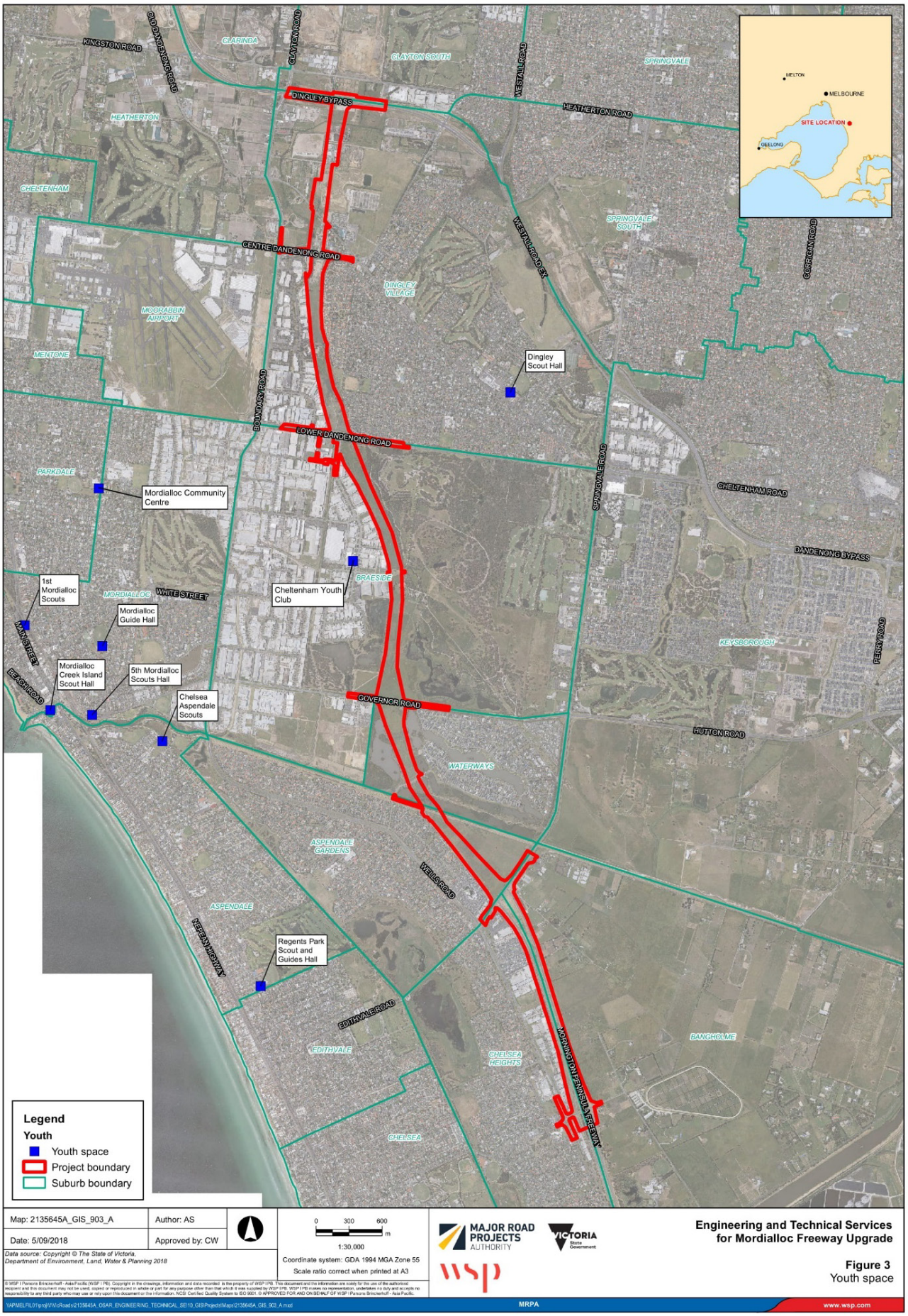
STUDY AREA SUBURB	COMMUNITY SUMMARY
Waterways	**Total residents**: 2,461 **Total Dwellings**: 737 **Local Government Area:** City of Kingston **Community profile**: — Small, consolidated pocket of established residential land abutting Green Wedge Zone supporting light industrial and agricultural uses and Special Use Zone used for golf courses. — Comparatively high rates of infants and school aged (5–17) children. — SEIFA ranking generally indicates relative socio-economic advantage. — Highest rate of vehicle ownership within the study area suggests high car dependency. — Comparatively higher proportion of households of six people of more. **Geographical barriers:** — Wetlands throughout the residential area including Mordialloc Creek to the south. — Major regional open space resources including Kingston Green Wedge to the south, Braeside Park to the north and Greater Dandenong to the east. — The estate is inward facing with only Bowen Parkway, Waterways Boulevard, Burdekin Boulevard providing connections to the surrounding road network to the south, east and north respectively. — Major arterial roads: Governor Road, Springvale Road and Wells Road. **Likely service centres**: Aspendale Gardens, Aspendale, Chelsea Heights, Chelsea, Edithvale.

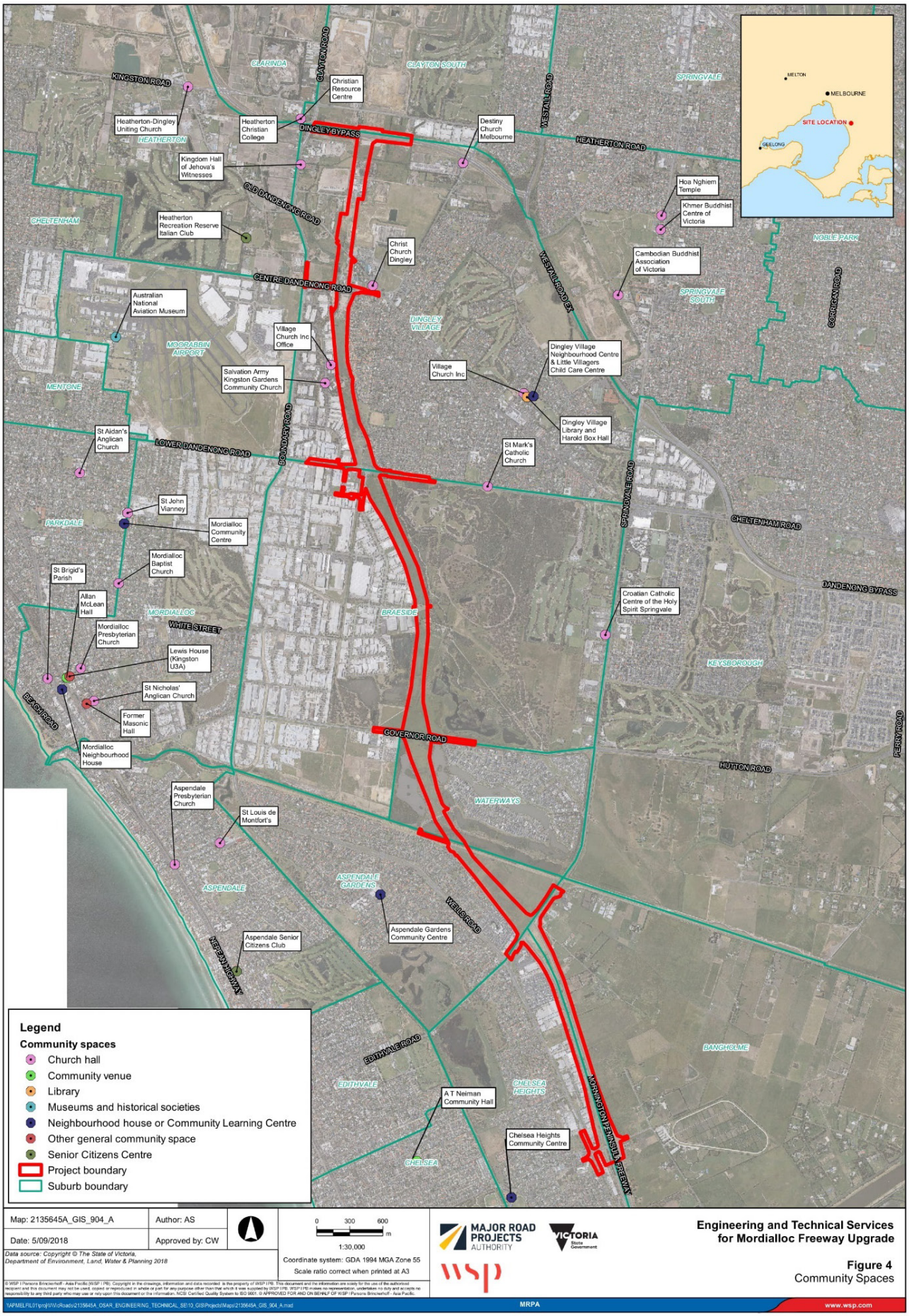
APPENDIX C

FACILITY AUDIT MAPS

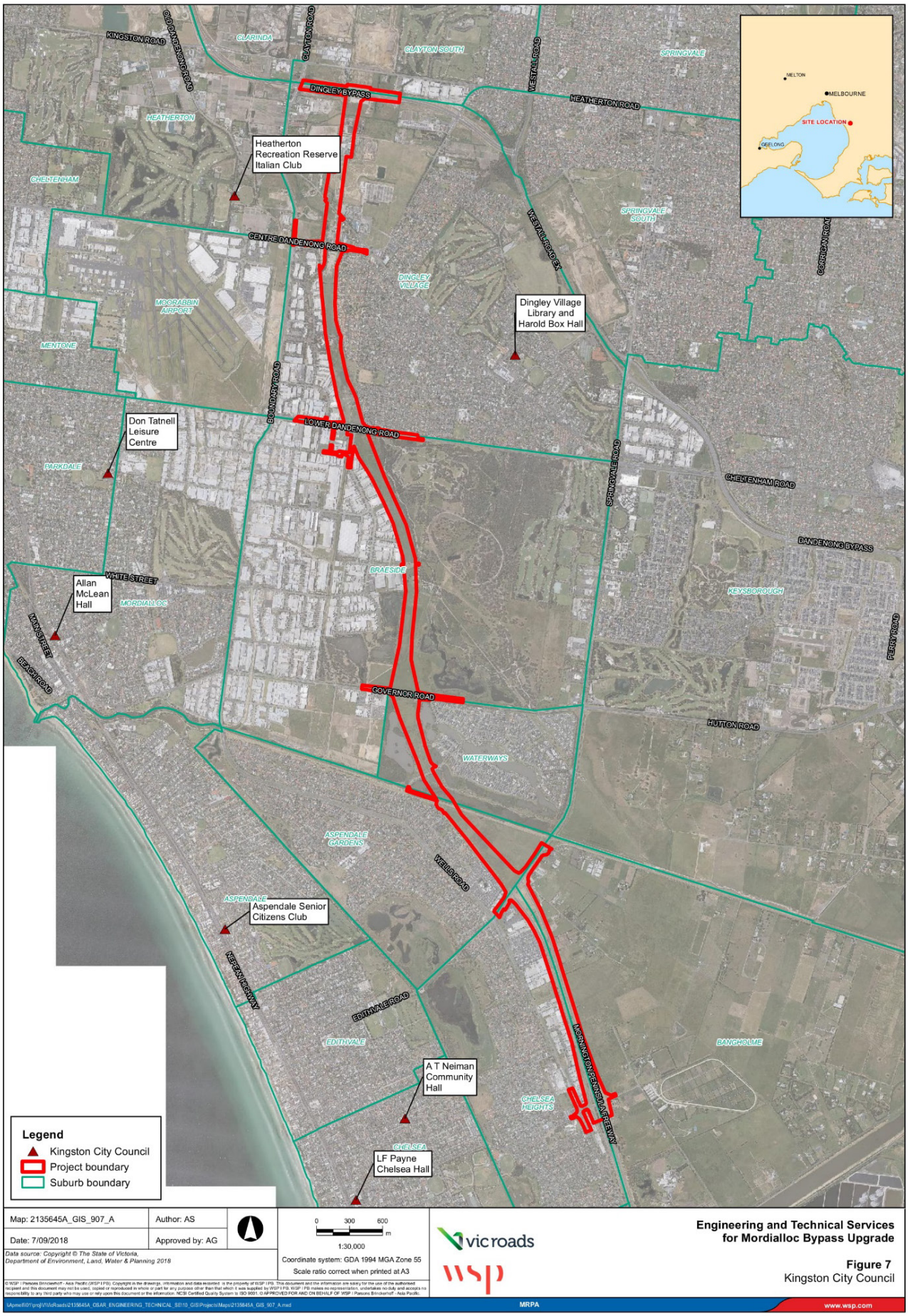

CLARINDA
KINGSTON ROAD
CLAYTON ROAD
CLAYTON SOUTH
SPRINGVALE
WESTALL ROAD
HEATHERTON
HEATHERTON ROAD
DINGLEY BYPASS
CHELTENHAM
NOBLE PARK
SPRINGVALE SOUTH
CENTRE DANDENONG ROAD
CORRIGAN ROAD
Abbeyfield House (Abbeyfield Society)
DINGLEY VILLAGE
Autism Plus
MOORABBIN AIRPORT
MENTONE
BOUNDARY ROAD
Greenwood Manor
LOWER DANDENONG ROAD
PARKDALE
CHELTENHAM ROAD
SPRINGVALE ROAD
Elly Kay
DANDENONG BYPASS
WHITE STREET
BRAESIDE
MORDIALLOC
Bayside Hostel
SCC Nixon Home
MAIN STREET
KEYSBOROUGH
BEACH ROAD
GOVERNOR ROAD
FERNY CREEK
HUTTON ROAD
Sandy Lodge
WATERWAYS
ASPENDALE GARDENS
WELLS ROAD
ASPENDALE
NEPEAN HIGHWAY
EDITHVALE ROAD
BANGHOLME
EDITHVALE
CHELSEA HEIGHTS
BUPA Edithvale
SCC Northcliffe Home
CHELSEA
MORNINGTON PENINSULA FREEWAY
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Health/ disability/ aged care
Residential care
Support service
Project boundary
Suburb boundary
Map: 2135645A_GIS_898_A
Author: AS
Date: 5/09/2018
Approved by: CW
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
MAJOR ROAD PROJECTS AUTHORITY
VICTORIA State Government
wsp
Engineering and Technical Services for Mordialloc Freeway Upgrade
Figure 1
Health, disability and aged care
MRPA
www.wsp.com


KINGSTON ROAD
OLD DANDENONG ROAD
CLARINDA
CLAYTON ROAD
CLAYTON SOUTH
WESTALL ROAD
HEATHERTON
HEATHERTON ROAD
DINGLEY BYPASS
Cheltenham MCHC
Kingston Health Primary School
Joseph Avenue Early Learning Centre
CHELTENHAM
CENTRE DANDENONG ROAD
SPRINGVALE SOUTH
NOBLE PARK
CORRIGAN ROAD
DINGLEY VILLAGE
Dingley Maternal and Child Health Centre
Dingley Village Neighbourhood Centre & Little Villagers Child Care Centre
MOORABBIN AIRPORT
Salvation Army Kingston Gardens Community Church
Kingswood Primary School
Little Villages Child Care Centre DVNH
MENTONE
Dingley Primary School
Marcus Road Kindergarten
Parktone Primary School
St Aidan's Anglican Church
Jacks Avenue Kindergarten
Parkdale Primary School
LOWER DANDENONG ROAD
St Marks Primary School
Parkdale Family & Children's Centre
Elonera Preschool
PARKDALE
SPRINGVALE ROAD
DANDENONG BYPASS
CHELTENHAM ROAD
Mordialloc Community Centre
BOUNDARY ROAD
Mordialloc Baptist Church
Kingston Kids Preschool & Child Care Centre
Kingston Toy Library - Formerly Mordialloc Senior Citizens Club
Kindy Patch Mordialloc
BRAESIDE
Mordialloc Beach Primary School
MORDIALLOC
BEACH ROAD
St Nicholas' Anglican Church
Mordialloc Neighbourhood House
Mordialloc Preschool
KEYSBOROUGH
GOVERNOR ROAD
Mordialloc Neighbourhood Centre (gumnuts)
Yarrabah School
HUTTON ROAD
WATERWAYS
St Louis De Montforts School
Minnows ELC Aspendale Gardens
Aspendale Primary School
Aspendale North Kindergarten
Aspendale Gardens Community Centre
NEPEAN HIGHWAY
ASPENDALE GARDENS
Aspendale Gardens Primary School
Bonkers Beat Music Kinder & Childcare
WELLS ROAD
ASPENDALE
Goodstart Early Learning Centre Aspendale Gardens
Playmates Early Learning Centre
EDITHVALE ROAD
Nola Barber Kindergarten
Edithvale Family & Children's Centre
Goodstart Early Learning Centre Chelsea Heights
MORNINGTON PENINSULA FREEWAY
EDITHVALE
CHELSEA HEIGHTS
BANGHOLME
Edithvale Primary School
Chelsea Heights Primary School
Edithvale Preschool
Chelsea Occasional Childcare
Chelsea Heights Community Centre
CHELSEA
Chelsea Heights Kindergarten
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Family and childrens services
Child care
Maternal and Child Health
Other early years
Outside school hours care
Playgroup
Preschool or kindergarten
Toy library
Project boundary
Suburb boundary
Map: 2135645A_GIS_902_A
Author: AS
Date: 5/09/2018
Approved by: CW
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
MAJOR ROAD PROJECTS AUTHORITY
VICTORIA
wsp
Engineering and Technical Services for Mordialloc Freeway Upgrade
Figure 2
Family and children's services
MRPA
www.wsp.com


KINGSTON ROAD
OLD DANDENONG ROAD
CLARINDA
CLAYTON ROAD
CLAYTON SOUTH
WESTALL ROAD
SPRINGVALE
DINGLEY BYPASS
HEATHERTON ROAD
HEATHERTON
CHELTENHAM
CENTRE DANDENONG ROAD
SPRINGVALE SOUTH
GREIGEAN ROAD
DINGLEY VILLAGE
MOORABBIN AIRPORT
MENTONE
Dingley Scout Hall
BOUNDARY ROAD
LOWER DANDENONG ROAD
PARKDALE
Mordialloc Community Centre
SPRINGVALE ROAD
CHELTENHAM ROAD
DANDENONG BYPASS
1st Mordialloc Scouts
MORDIALLOC
WHITE STREET
Cheltenham Youth Club
BRAESIDE
Mordialloc Guide Hall
MAIN STREET
KEYSBOROUGH
FERNY ROAD
Mordialloc Creek Island Scout Hall
5th Mordialloc Scouts Hall
BEACH ROAD
Chelsea Aspendale Scouts
GOVERNOR ROAD
HUTTON ROAD
WATERWAYS
ASPENDALE GARDENS
WELLS ROAD
ASPENDALE
NEPEAN HIGHWAY
Regents Park Scout and Guides Hall
EDITHVALE ROAD
EDITHVALE
CHELSEA HEIGHTS
MORNINGTON PENINSULA FREEWAY
BANGHOLME
CHELSEA
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Youth
Youth space
Project boundary
Suburb boundary
Map: 2135645A_GIS_903_A
Author: AS
Date: 5/09/2018
Approved by: CW
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
MAJOR ROAD PROJECTS AUTHORITY
VICTORIA State Government
wsp
Engineering and Technical Services for Mordialloc Freeway Upgrade
Figure 3
Youth space
MRPA
www.wsp.com


CLARINDA
CLAYTON SOUTH
SPRINGVALE
KINGSTON ROAD
CLAYTON ROAD
Christian Resource Centre
Heatherton-Dingley Uniting Church
HEATHERTON
Heatherton Christian College
DINGLEY BYPASS
Destiny Church Melbourne
WESTALL ROAD
HEATHERTON ROAD
Kingdom Hall of Jehova's Witnesses
OLD DANDENONG ROAD
Hoa Nghiem Temple
Khmer Buddhist Centre of Victoria
CHELTENHAM
Heatherton Recreation Reserve Italian Club
NOBLE PARK
Christ Church Dingley
Cambodian Buddhist Association of Victoria
CENTRE DANDENONG ROAD
WESTALL ROAD EXT
CORRIGN ROAD
SPRINGVALE SOUTH
Australian National Aviation Museum
DINGLEY VILLAGE
Village Church Inc Office
MOORABBIN AIRPORT
Dingley Village Neighbourhood Centre & Little Villagers Child Care Centre
Salvation Army Kingston Gardens Community Church
Village Church Inc
MENTONE
Dingley Village Library and Harold Box Hall
St Aidan's Anglican Church
LOWER DANDENONG ROAD
BOUNDARY ROAD
St Mark's Catholic Church
SPRINGVALE ROAD
St John Vianney
PARKDALE
Mordialloc Community Centre
CHELTENHAM ROAD
Mordialloc Baptist Church
St Brigid's Parish
DANDENONG BYPASS
Allan McLean Hall
Croatian Catholic Centre of the Holy Spirit Springvale
MORDIALLOC
BRAESIDE
WHITE STREET
Mordialloc Presbyterian Church
Lewis House (Kingston U3A)
KEYSBOROUGH
St Nicholas' Anglican Church
BEACH ROAD
Former Masonic Hall
GOVERNOR ROAD
PERRY ROAD
Mordialloc Neighbourhood House
HUTTON ROAD
Aspendale Presbyterian Church
WATERWAYS
St Louis de Montfort's
ASPENDALE GARDENS
ASPENDALE
WELLS ROAD
Aspendale Gardens Community Centre
Aspendale Senior Citizens Club
KINGSTON LINK
EDITHVALE ROAD
BANGHOLME
EDITHVALE
CHELSEA HEIGHTS
A T Neiman Community Hall
NEPEAN HIGHWAY
Chelsea Heights Community Centre
CHELSEA
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Community spaces
Church hall
Community venue
Library
Museums and historical societies
Neighbourhood house or Community Learning Centre
Other general community space
Senior Citizens Centre
Project boundary
Suburb boundary
Map: 2135645A_GIS_904_A
Author: AS
Date: 5/09/2018
Approved by: CW
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
MAJOR ROAD PROJECTS AUTHORITY
VICTORIA State Government
wsp
Engineering and Technical Services for Mordialloc Freeway Upgrade
Figure 4
Community Spaces
MRPA
www.wsp.com


KINGSTON ROAD
OLD DANDENONG ROAD
CLARINDA
CLAYTON ROAD
CLAYTON SOUTH
WESTALL ROAD
SPRINGVALE
DINGLEY BYPASS
HEATHERTON ROAD
HEATHERTON
CHELTENHAM
NOBLE PARK
SPRINGVALE SOUTH
CENTRE DANDENONG ROAD
WESTALL ROAD EX
CORRIGAN ROAD
DINGLEY VILLAGE
MOORABBIN AIRPORT
MENTONE
Kingswood Primary School
Dingley Primary School
Parktone Primary School
LOWER DANDENONG ROAD
BOUNDARY ROAD
St John Vianneys Primary School
St Marks Primary School
Parkdale Secondary College
SPRINGVALE ROAD
CHELTENHAM ROAD
PARKDALE
Parkdale Primary School
DANDENONG BYPASS
WHITE STREET
BRAESIDE
MORDIALLOC
Mordialloc Beach Primary School
KEYSBOROUGH
MAIN STREET
BEACH ROAD
St Brigids Parish Primary School
Mordialloc College
Yarrabah School
GOVERNOR ROAD
PERRY ROAD
HUTTON ROAD
WATERWAYS
St Louis De Montforts School
Aspendale Gardens Primary School
Aspendale Primary School
ASPENDALE
ASPENDALE GARDENS
NEPEAN HIGHWAY
EDITHVALE ROAD
WELSH ROAD
Edithvalde Primary School
CHELSEA HEIGHTS
BANGHOLME
EDITHVALE
MONASH FREEWAY
Chelsea Heights Primary School
CHELSEA
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Education
Primary school
Secondary school
Project boundary
Suburb boundary
Map: 2135645A_GIS_905_A
Author: AS
Date: 5/09/2018
Approved by: CW
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
MAJOR ROAD PROJECTS AUTHORITY
VICTORIA State Government
wsp
Engineering and Technical Services for Mordialloc Freeway Upgrade
Figure 5
Education Facilities
MRPA
www.wsp.com


KINGSTON ROAD
SOUTH GIPPSLAND HIGHWAY
CLARINDA
CLAYTON ROAD
CLAYTON SOUTH
WESTALL ROAD
SPRINGVALE
DINGLEY BYPASS
HEATHERTON ROAD
HEATHERTON
Heatherton Recreation Reserve Italian Club
CHELTENHAM
CENTRE DANDENONG ROAD
WESTALL ROAD EXT
SPRINGVALE SOUTH
CORRIGAN ROAD
DINGLEY VILLAGE
MOORABBIN AIRPORT
Dingley Village Library and Harold Box Hall
MENTONE
BOUNDARY ROAD
LOWER DANDENONG ROAD
Don Tatnell Leisure Centre
PARKDALE
SPRINGVALE ROAD
CHELTENHAM ROAD
DANDENONG BYPASS
BRAESIDE
WHITE STREET
Allan McLean Hall
MORDIALLOC
KEYSBOROUGH
MAIN STREET
FERNY ROAD
BEACH ROAD
GOVERNOR ROAD
HUTTON ROAD
WATERWAYS
ASPENDALE GARDENS
WELLS ROAD
ASPENDALE
Aspendale Senior Citizens Club
NEPEAN HIGHWAY
EDITHVALE ROAD
EDITHVALE
BANGHOLME
MORNINGTON PENINSULA FREEWAY
A T Neiman Community Hall
CHELSEA HEIGHTS
CHELSEA
LF Payne Chelsea Hall
MELTON
MELBOURNE
SITE LOCATION
GEELONG
Legend
Kingston City Council
Project boundary
Suburb boundary
Map: 2135645A_GIS_907_A
Author: AS
Date: 7/09/2018
Approved by: AG
0 300 600 m
1:30,000
Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
Data source: Copyright © The State of Victoria, Department of Environment, Land, Water & Planning 2018
vicroads
wsp
Engineering and Technical Services for Mordialloc Bypass Upgrade
Figure 7
Kingston City Council
MRPA
www.wsp.com

ABOUT US

WSP is one of the world's leading engineering professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, planners, surveyors, environmental specialists, as well as other design, program and construction management professionals. We design lasting Property & Buildings, Transportation & Infrastructure, Resources (including Mining and Industry), Water, Power and Environmental solutions, as well as provide project delivery and strategic consulting services. With 36,000 talented people in more than 500 offices across 40 countries, we engineer projects that will help societies grow for lifetimes to come.