Western Port Highway (North) Upgrade Project

Report to accompany Amendment C199 to the Casey Planning Scheme, C99 to the Frankston Planning Scheme and C183 to the Greater Dandenong Planning Scheme

Final - 4 August 2014

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Abbreviations used in this report

CFR	Cranbourne-Frankston Road
CHMP	Cultural Heritage Management Plan
CWPSP	Cranbourne West Precinct Structure Plan
DEPI	Department of Environment and Primary Industries
DSIAESP	Dandenong South Industrial Area Extension Structure Plan
DTPLI	Department of Transport, Planning and Local Infrastructure
EEA	Environment Effects Act 1978
EES	Environment Effects Statement
EPBC	Environment Protection and Biodiversity Conservation Act 1999
EPA	Environment Protection Authority
ESO	Environmental Significance Overlay
FFG	Flora and Fauna Guarantee Act 1988
GWZ	Green Wedge Zone
HO	Heritage Overlay
LLDP	Lynbrook and Lyndhurst development Plan
LPPF	Local Planning policy Framework
LSIO	Land Subject to Inundation Overlay
MPA	Metropolitan Planning Authority
MSS	Municipal Strategic Statement
PAO	Public Acquisition Overlay
POHDA	Port of Hastings Development Authority
PUZ	Public Use Zone
RDZ1	Road Zone 1
R1Z	Residential 1 Zone
SBO	Special Building Overlay
SGF	South Gippsland Freeway
SLO	Significant Landscape Overlay
SPPF	State Planning Policy Framework
UGB	Urban Growth Boundary
UGZ	Urban Growth Zone
VFLP	Victorian Freight and Logistics Plan
VPO	Vegetation Protection Overlay
VPP	Victoria Planning Provisions
WPH	Western Port Highway

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EXECUTIVE SUMMARY

Introduction

This report is prepared to accompany and support amendments to each of the planning schemes applying in the municipalities of Casey, Frankston and Greater Dandenong. The amendments primarily seek to reserve the land required for the Western Port Highway (North) Upgrade project between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road, and thereby facilitate land acquisition and construction of the project.

There is currently no intention to fund or construct the project in the short term, other than to reserve the land required. The timing of the upgrade will depend on forecast and actual traffic increases, development patterns and activity in the urban growth areas, Port of Hastings and other employment areas and ultimately government prioritisation and funding. The upgrade may be constructed as a single project or in multiple stages.

Planning scheme amendments

This report supports planning scheme amendments as follows:

- Amendment C199 to the Casey Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1), remove a PAO1 from land acquired by VicRoads, and rezone land in the ownership of VicRoads to Road Zone 1 (RDZ1).

- Amendment C99 to the Frankston Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1), replace a PAO2 on land for the Hall Road interchange (under the responsibility of the City of Frankston) with a PAO1 (under the responsibility of Roads Corporation), remove a PAO1 from land acquired by VicRoads, and rezone land in the ownership of VicRoads to Road Zone 1 (RDZ1).

- Amendment C183 to the Greater Dandenong Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1) and remove a PAO1 from land acquired by VicRoads.

Project description

The Western Port Highway (North) Upgrade project, as facilitated by these amendments, involves the upgrade of the section of Highway between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road to freeway conditions, including associated intersection upgrades and access changes and allowance for a possible future railway line to the Port of Hastings.

Western Port Highway is a declared primary arterial road and principal freight route, which traverses the outer south-eastern suburbs of the Melbourne metropolitan area and forms a major access route between South Gippsland Freeway and Hastings. It also provides an important transport corridor in the developing areas of the Casey-Cardinia Growth Corridor and Dandenong South Industrial Area.

Western Port Highway is currently a four lane divided road with at-grade intersections and direct property access. It carries approximately 45,000 veh/day at its northern end, decreasing to around 25,000 veh/day north of Cranbourne-Frankston Road. Over time, traffic volumes and congestion along Western Port Highway will increase, causing significant delays to commuter and freight vehicles. Parallel roads will experience undesirably high traffic volumes and congestion, as drivers attempt to avoid congestion along the Highway.

The upgrade of the Western Port Highway to freeway conditions will accommodate forecast future traffic demands and improve access to urban residential, industrial and employment areas along the Highway. The project proposals are the result of a planning study conducted by VicRoads over the period 2007 to 2013.

The project includes the following provisions:

- Six to eight lane, urban freeway cross-section along Western Port Highway.
- Full movement interchanges at South Gippsland Highway (existing interchange), Glasscocks Road, Thompsons Road (separate planning study and project), Hall Road and Cranbourne-Frankston Road and a northerly half diamond interchange at Wedge Road.
- Closure of all other road and driveway access to Western Port Highway and selected driveway access to cross-roads, with access restored via existing or new local roads and/or driveways and an overpass of the Highway at Ballarto Road.
- Selected intersection upgrades to accommodate traffic diverted by closures of Moreton Bay Boulevard and Ballarto Road at Western Port Highway.
- Provision for buses, pedestrians and cyclists along the Western Port Highway and at its interchanges.
- Landscaping along Western Port Highway and at its interchanges, and native vegetation offset planning at other locations.

Allowance for rail

Consistent with Government transport policy and by agreement with the Department of Transport, Planning and Local Infrastructure, the project includes allowance for a possible future railway line to the Port of Hastings. The impacts of the railway line will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

This assessment approach is consistent with the Minister for Planning's decision on the referral on the need for an Environment Effects Statement (EES) for the Western Port Highway (North) Upgrade. The Minister determined that an EES is not required for a project scope which clearly excluded the construction and operation of the railway line. In making his decision the Minister anticipated *"that any future development of rail in this corridor will be subject to a separate referral coupled with either the proposed Port of Hastings or Western Port Highway (South) Upgrade."*

There is no current reservation for the railway line in Western Port Highway (South) between Cranbourne-Frankston Road and the Port of Hastings. Hence the reservation of land for a railway line in Western Port Highway (North) will not in itself facilitate the construction of the railway line.

It is considered prudent to reserve the land required for a rail line in Western Port Highway (North) as part of the planning scheme amendments to reserve the land for the freeway because it provides certainty to Councils and property owners of potential future land requirements, enabling land development and future use to proceed in a manner that is complementary to possible transport uses and does not preclude the possibility of rail.

Planning policy

The project is consistent with Government transport policy, including *Victoria - The Freight State* and *Plan Melbourne*. These plans acknowledge Western Port Highway as a major freight network asset and the preferred road and rail transport corridor to connect the Port of Hastings to the broader transport network. The plans include a short-term action to preserve a transport corridor along the Western Port Highway for a possible future freeway and railway line, and a longer term action to progressively upgrade the Western Port Highway.

The project is generally supportive of State planning policy as set out in the State Planning Policy Framework of the Victorian Planning Provisions. In particular the project will support policies for growth areas (Cl.11.02-2), integrated transport (Cl. 18.01), movement networks (Cl. 18.02), ports (Cl. 18.03) and freight (Cl. 18.05).

The project has been conceptually designed to have regard to the objectives of policies which establish an environmental protection framework, including environmental and landscape values (Cl.12) and built environment and heritage (Cl. 15).

Local Planning Policy Framework of the three applying planning schemes generally recognises Western Port Highway as an important arterial in the existing and planned future development of the region. The proposed reservation of land for the upgrade of the Highway is therefore generally supportive of the local policy framework of the three local planning authorities.

The Greater Dandenong Planning Scheme indicates that *"the planned upgrade by VicRoads, of the Western Port Highway to Freeway standards including replacement of non-conforming access points with designated grade separated interchanges needs to be considered in future land use planning."* The Frankston Planning Scheme identifies the need to "*plan for a rail freight link between the Port of Hastings and a proposed inland port"* and advocates *"to have any Port of Hastings rail link in the Western Port Highway corridor".*

The City of Casey has adopted two strategic plans for land adjacent to Western Port Highway. The *Lynbrook and Lyndhurst Development Plan* and the *Cranbourne West Precinct Structure Plan* are effective through their incorporation into the Casey Planning Scheme. The project is specifically recognised and provided for in the *Cranbourne West Precinct Structure Plan*. Aspects of the project conflict with the *Lynbrook and Lyndhurst Development Plan*, and the project includes signalisation of the Glasscocks Road/Aylmer Road intersection to mitigate some of these impacts.

The City of Greater Dandenong has adopted one strategic plan for land adjacent to Western Port Highway. The *Dandenong South Industrial Area Extension Structure Plan* is effective through its incorporation into the Greater Dandenong Planning Scheme. The project is specifically recognised and provided for in the Structure Plan, and consistent with the access proposals for development within the industrial area.

Other statutory compliance

The project requires planning permits for earthworks and roadworks in certain applying zones and overlays and for the removal of native vegetation in each of the three applying planning schemes. It is not proposed to construct the project at this time and hence VicRoads is not currently making application for these permits.

Urban context and future development

Western Port Highway is largely abutted by existing and proposed urban development, including residential, business and employment uses. Significant future development is proposed in Dandenong South and Cranbourne West abutting the Highway, which provides a key driver for the project proposals. Part of the land west and south of the Highway is zoned as green wedge and rural conservation.

Western Port Highway links the South Gippsland Freeway at Dandenong South with Frankston Flinders Road at Hastings, a distance of approximately 27km. It links the major south-eastern road transport arteries of South Gippsland Freeway, Princes Highway and South Gippsland Highway with a series of major east-west primary and secondary arterial roads serving the south-eastern metropolitan areas, including Thompsons Road, Cranbourne-Frankston Road, Baxter-Tooradin Road and Frankston-Flinders Road.

With its major north-south connectivity the Highway plays a significant role in the accessibility of the broader metropolitan area. It provides key linkage with major employment areas including Dandenong South, Lynbrook and Cranbourne West and other transport and logistics facilities including the Port of Hastings. By interconnection it also facilitates accessibility to principal activity centres including Dandenong, Frankston, Cranbourne and Fountain Gate and an array of lesser activity centres in the region.

Project benefits

The construction of the project and related intersection improvements, as facilitated by these amendments, will deliver a range of traffic and transport benefits with consequential economic, social and environmental benefits and impacts. These benefits include reduced travel time and improved traffic efficiency, improved access to employment and other areas, public and sustainable transport opportunities, improved road safety, and support for urban growth strategies and regional growth.

Traffic implications and transport planning

Traffic modelling and capacity analyses indicates the long-term need for a freeway along Western Port Highway, with three through lanes in each direction to accommodate future traffic demands and an auxiliary lane in each direction between critical interchanges to provide adequate ramp capacity. Such a freeway is expected to carry up to 100,000 veh/day in 2046.

It is estimated that the above quoted volumes on WPH would be reduced by around 10,000 veh/day if the development of the Port of Hastings did not proceed. Whilst the volume reduction would provide some improvement in traffic operation, the volumes along WPH would still be very high and warrant the provision of a freeway.

The project is expected to reduce traffic volumes and congestion on parallel routes, including East Link, Dandenong-Frankston Road, Evans Road, South Gippsland Highway and the northern part of McCormicks Road.

Land use impacts

A total of 79 parcels of land are affected by land acquisition for the project, including 71 parcels affected by the proposed public acquisition overlay. Ten of the land parcels are owned by State or Local Government and the remainder are registered to private owners. Of the 23 properties affected by building acquisition, 16 properties are of sufficient size to enable construction of replacement houses, buildings or sheds elsewhere on the property. Of the remaining 7 properties, 6 properties are rural residences with limited or no residual land to enable replacement housing. The other property is a service station on land that is to be redeveloped as residential.

A total of 71 parcels of land are affected by driveway closures associated with the project. Access to all of these properties, except two service stations, will be restored via new driveways and existing or new local roads as necessary.

Road closures associated with the project will affect existing and future urban areas and many properties near Western Port Highway are indirectly affected. Alternative access has been planned or is available for the urban areas and the impacts for existing and future users and occupiers of these areas are not considered to be significant. The project includes intersection upgrades as necessary to accommodate traffic diverted by the closure of access to Western Port Highway at Moreton Bay Boulevard and Ballarto Road.

Social issues

The project may have a range of potential negative social impacts to properties abutting the Western Port Highway. Social impacts potentially relate to anxiety and uncertainty about project impacts and timing, land acquisition and compensation impacts, local access changes, severance to properties, individual mobility limitations, dislocation due to the barrier effect of the road, and changes to resident's amenity.

Despite these local impacts the project is expected to provide a net community benefit to the Victorian community, particularly the metropolitan south-east region where it will provide improved accessibility to employment nodes, activity centres and community infrastructure and a catalyst for economic growth and employment.

Economic effects

The most significant adverse economic impacts of the project are to three service stations abutting the east side of the Western Port Highway. One service station is fully acquired and the other two service stations lose all access to the Highway.

Three other local businesses may be significantly impacted by the project, being the All Breeds Boarding Kennels and Cattery and two nurseries, Plantmark and Premier Plants. Changes in business operations may be required to maintain the viability of these businesses.

Despite these local impacts, the project is expected to have significant positive economic benefits for the overall road transport function in this sector of the metropolitan area and will support local development and land use.

The project is estimated to have a benefit cost ratio of at least 4.

Ecological issues including native vegetation

The study area contains a number of high conservation significance large old trees and a significant area of native vegetation. No threatened species have been identified in targeted surveys, except for two birds that may be occasional visitors to the area. Approval for removal or destruction of the native vegetation is not being sought as part of this amendment process. Permits will be sought as necessary under the relevant planning scheme prior to the construction of the project.

Landscape considerations and the visual environment

Visual assessments indicate that the project represents a change in the visual environment that would not be out of place or particularly memorable in an increasingly urbanised area. Generally the visual impacts of the project to abutting residents and workers will be mitigated by landscape treatments within the road reserve or adjacent tree reserves.

Cultural heritage

Investigations of the project area have identified a number of items of Aboriginal and non-Aboriginal cultural heritage significance (low to moderate significance). VicRoads will continue to seek ways to mitigate project impacts on identified cultural heritage items. In particular it will complete a cultural heritage management plan prior to seeking approval for the project.

Traffic noise

The Minister for Planning has determined that an Environment Effects Statement is not required for the project, subject to the condition that a noise impact assessment report be released as part of the planning scheme amendments.

VicRoads' Traffic Noise Reduction Policy 2005 provides the noise objectives to be applied to the project. VicRoads has had a dedicated traffic noise policy since 1989, which in its various forms has been used to determine noise attenuation requirements for major road projects developed over the last 25 years.

There are no other State policies that address the management of traffic noise. The Environment Protection Authority does not have a policy specifically addressing traffic noise, and recognises that VicRoads is the key agency responsible for managing traffic noise.

Assessment of the project against *VicRoads' Traffic Noise Reduction Policy 2005* and associated *VicRoads Road Design Note, interpretation and application of VicRoads' Traffic Noise Policy 2005*, indicates that it is not eligible for noise attenuation measures.

Preliminary noise modelling for 191 residences near the Western Port Highway indicates that an imperceptible noise increase is expected at 99 residences and a perceptible noise increase is expected at 74 residences due to the project.

The existing and proposed urban residential development along the east side of Western Port Highway between Northey Road and Cranbourne-Frankston Road occurred or is occurring on the basis of Western Port Highway being a major arterial road or freeway. Property owners should have been aware of the traffic generated by the Highway and reasonably expected an increase in traffic volumes and noise over time.

VicRoads proposes to mitigate noise level impacts in accordance with traffic noise reduction policies applicable at the time of construction of the project. VicRoads' current policy indicates that noise attenuation measures are not required, however, any future policy may have different requirements. The proposed reservation for the project includes sufficient space for noise attenuation barriers to be provided, if required by any future policy.

Air quality

The project is not expected to result in near-road air pollutant concentration levels in excess of intervention levels specified by the Environment Protection Authority.

Stormwater management and drainage

The impact of the project on water environments is expected to be minor and manageable. There are no major watercourses along Western Port Highway and stormwater runoff generated by the upgraded roads would be collected and treated in accordance with Water Sensitive Road Design Principles.

Geotechnical and groundwater issues

The impact of the project on geological environments is expected to be minor and manageable.

Construction issues

Planning permits and other approvals for project works will be sought at a later stage when construction funding is approved and detailed designs are prepared. Therefore the impacts of construction are more appropriately a matter for consideration when approval is being sought for the project works.

Consultation

Over the period of development of conceptual plans, investigations and proposed reservation for the project, VicRoads has consulted a range of stakeholders and interested parties. Issues raised by land owners, businesses and other stakeholders have been taken into consideration in the development of the proposed reservation.

Frankston City Council, which is responsible for some land to the west of Western Port Highway, objects to VicRoads' proposed treatments at Wedge Road and Ballarto Road. VicRoads proposes a northerly ramp interchange at Wedge Road and an overpass without ramps at Ballarto Road, consistent with the *Cranbourne West Precinct Structure Plan (January 2010)* and the findings of a detailed assessment of the long term road network and land use development needs of the area. Frankston City Council objects to any interchange at Wedge Road and has requested a full movement interchange at Ballarto Road.

Ballarto Road Options

VicRoads has prepared concept design plans and assessed the impacts of northerly movement and full movement interchange options at Ballarto Road, for the purposes of consulting with property owners and occupiers that may be affected by Frankston City Council's proposal.

The interchange options, particularly the full movement interchange option, requires more land than VicRoads' overpass proposal. Two additional houses would need to be acquired to accommodate the full movement interchange option, compared to the overpass proposal. Also additional native vegetation would need to be removed.

Assessments indicate that there is no compelling need for northerly ramps at Ballarto Road. Whilst the ramps would provide some benefit to local land uses and reduce volumes on McCormicks Road, the ramps would largely serve residential rather than employment uses and hence generate limited economic benefit. The limited benefit of such ramps would not likely outweigh the cost of providing the ramps, the adverse impact to properties affected by land acquisition, and the disturbance of the ramps to freeway traffic.

Southerly movement ramps at Ballarto Road would attract a very low traffic volume. The benefits of the ramps to local traffic and land uses are very limited and far less than the negative impacts of the ramps, including the cost of providing the ramps, the impact to properties affected by land acquisition, and the disturbance of the ramps to freeway traffic.

VicRoads prefers the overpass without ramps proposal for Ballarto Road, which is facilitated by the amendments, to the other two options.

1 INTRODUCTION

1.1 This report

This report is prepared to accompany and support amendments to each of the planning schemes applying in the municipalities of Casey, Frankston and Greater Dandenong. The amendments primarily seek to apply the Public Acquisition Overlay (PAO1) to reserve the land required for the Western Port Highway (North) Upgrade project between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road, and thereby facilitate land acquisition and construction of the project.

This report contains the background to the project and a description of the proposed works, even though it is not proposed to construct the project at this time but to reserve the additional land required. The report also sets out the statutory planning scheme context including state and local policy and the approval requirements. All relevant environmental issues including land use, social, economic and the natural environment are reported, the potential project impacts addressed and mitigation measures presented. Finally the report describes the consultation processes that have occurred.

In describing environmental impacts the report draws on a range of specialist investigations that have been carried out for VicRoads by consultants and these reports are generally included as appendices.

1.2 The project

Western Port Highway, also known as Dandenong-Hastings Road, is a declared primary arterial road which runs north-south through the outer south-eastern suburbs of the Melbourne metropolitan area. The road forms a major access route between the South Gippsland Freeway at Lynbrook in the north and Hastings in the south. It also provides an important transport corridor in the developing areas of the Dandenong South Industrial Area and Casey-Cardinia Growth Corridor. Western Port Highway traverses land in the Casey, Frankston, Greater Dandenong and Mornington Peninsula municipal areas.

The project applies to the northern section of Western Port Highway between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road (refer to Figure 1.1) This section is currently a four lane divided arterial road with at grade intersections and direct property access. The planning scheme amendments will reserve land to facilitate the upgrade of this section of Western Port Highway to freeway conditions, including allowance for a possible future railway line to the Port of Hastings. The project is referred to as the Western Port Highway (North) Upgrade.

The project is consistent with and supportive of Government transport policy objectives as outlined in the *Transport Integration Act 2010*, *South East Growth Corridor Plan* and *Plan Melbourne.* Also *Victoria – The Freight State* establishes and promotes a Principal Freight Network which includes Western Port Highway, and provides for the development of the Port of Hastings as Victoria's second container port.

The project proposals are the result of a planning study conducted by VicRoads over the period 2007 to 2013.

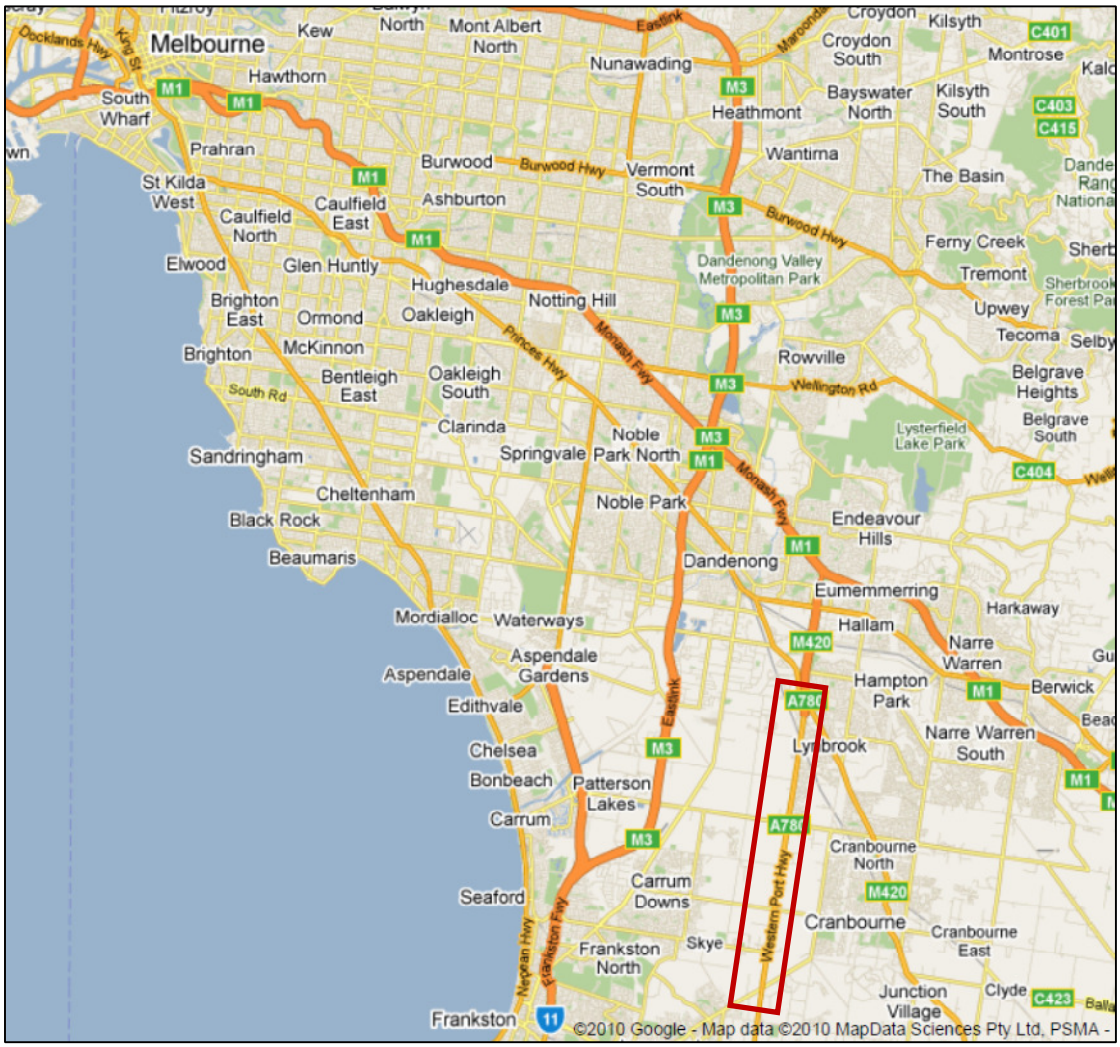


Figure 1.1 Location of Western Port Highway (North) Upgrade Project

1.3 Need for the project

The upgrading of the whole of the Western Port Highway to freeway standard is a long term need identified in Government strategies and policies, including *Plan Melbourne* and *Victoria – The Freight State*. The upgrade of the northern section (between South Gippsland Freeway and Cranbourne-Frankston Road) to freeway standard is required to support forecast population growth and land use development in the surrounding area, and is required irrespective of any development at the Port of Hastings.

Government strategies and policies identify the potential need for a railway line to the Port of Hastings along the Western Port Highway to facilitate the efficient and sustainable delivery of freight between metropolitan, regional and interstate markets.

The reservation of land for the northern section of the Western Port Highway is required now to protect the land from development, and enable timely and accurate advice to current and future owners and developers of the land abutting the Highway. Inclusion of the land required for the possible future railway line provides certainty to property owners and developers, and facilitates the provision of an integrated transport corridor rather than separate road and rail corridors with consequently greater environmental impacts.

Western Port Highway in this northern section is currently a four lane divided road with at-grade intersections and direct property access. It carries approximately 45,000 veh/day (vehicles per day) at its northern end, decreasing to around 25,000 veh/day north of Cranbourne-Frankston Road. There is considerable traffic congestion at the intersections of the Highway with Thompsons Road and Hall Road.

Over time, traffic congestion along Western Port Highway will worsen and cause significant delays to commuter and freight vehicles. Parallel roads will experience undesirably high traffic volumes and congestion, as drivers attempt to avoid congestion along the Highway. An upgrade to freeway standard will relieve traffic congestion and attract significant traffic volume parallel roads, which are less suited to carrying commuter and freight flows.

The existing road reservation is generally 50m to 60m in width and is sufficient to accommodate the existing arterial road. In places there is an existing public acquisition overlay (PAO1) in the planning schemes of Casey, Frankston and Greater Dandenong, which has been included to allow for future road widening, portions of the required grade-separated interchanges at Glasscocks Road and Thompsons Road, and at-grade intersection upgrades at other locations along the Highway.

The existing road reservation, including the existing PAO widening, is insufficient to accommodate the required additional lanes, grade-separated intersection treatments and possible future railway line over the entire project length. Therefore, to cover the additional land requirements, it is proposed to apply a PAO1 to land within the three municipalities of Casey, Frankston and Greater Dandenong.

Some land has previously been acquired by VicRoads and therefore a reservation in the form of a PAO is no longer required. The amendments will remove the PAO from this land. This land and some additional land parcels that have been purchased by VicRoads and which are not subject to the Road Zone 1 (RDZ1) are proposed to be included in the RDZ1 as part of these amendments.

The amendments also replace the existing PAO2 on the Hall Road western approach to the Western Port Highway and within the proposed interchange area with a PAO1, so that the Roads Corporation rather than Frankston City Council is the Acquiring Authority.

Refer to Figure 1.2 for an example of the proposed PAO and the plans in the Concept Design and Engineering Consideration Report (AECOM, June 2014) in Appendix A for the proposed PAO and road zone changes.

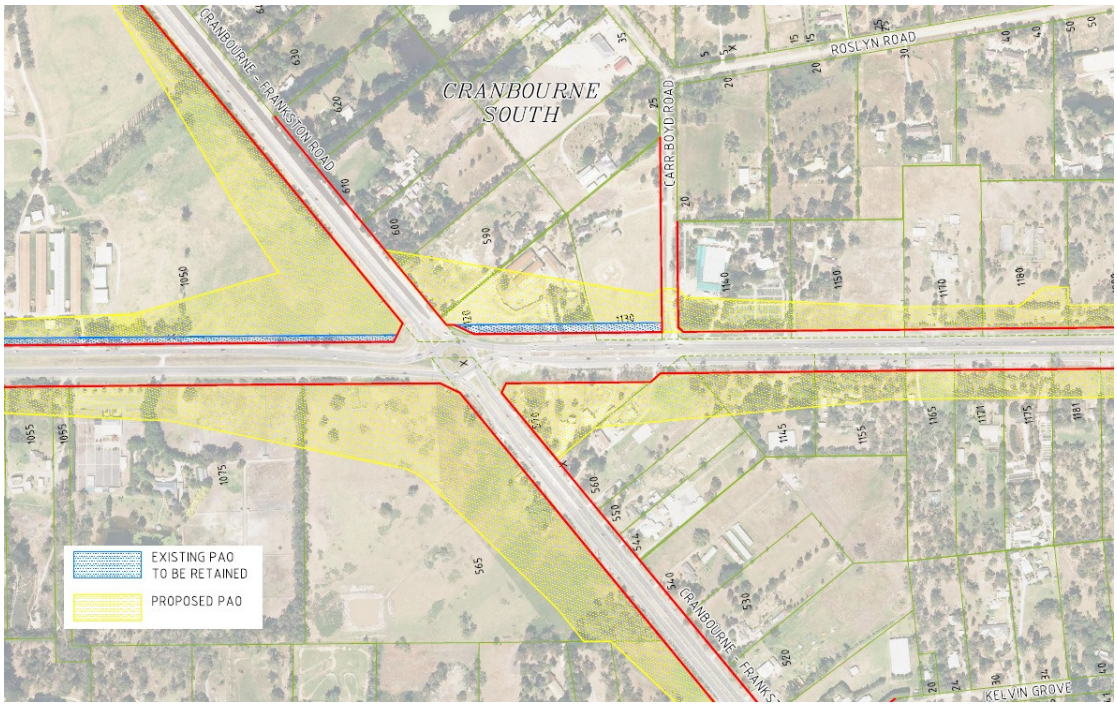


Figure 1.2 Existing and proposed public acquisition overlay

1.4 The proposed amendments

This report supports planning scheme amendments as follows:

- Amendment C199 to the Casey Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1), remove a PAO1 from land acquired by VicRoads, and rezone land in the ownership of VicRoads to Road Zone 1 (RDZ1).

- Amendment C99 to the Frankston Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1), replace a PAO2 on land for the Hall Road interchange (under the responsibility of the City of Frankston) with a PAO1 (under the responsibility of Roads Corporation), remove a PAO1 from land acquired by VicRoads, and rezone land in the ownership of VicRoads to Road Zone 1 (RDZ1).

- Amendment C183 to the Greater Dandenong Planning Scheme to include land for the project in Public Acquisition Overlay (PAO1) and remove a PAO1 from land acquired by VicRoads.

Specifically the amendments incorporate the following changes to the planning scheme maps:

Casey Planning Scheme

- Amend Planning Scheme Map 7 to rezone land within the road reserve for the Western Port Highway or land adjacent to the road reserve and owned by VicRoads (ie. Lot 1/TP165283, and 120 and 140 Western Port Highway) from Business 3 Zone or Residential 1 Zone to Road Zone Category 1.

- Amend Planning Scheme Map 10 to rezone land within the road reserve for Thompsons Road from Residential 1 Zone to Road Zone Category 1.

- Amend Planning Scheme Map 14 to rezone land within the road reserve for the Western Port Highway or land adjacent to the road reserve and owned by VicRoads (ie. 210R and 226 WPH) from Urban Growth Zone Schedule 1, Urban Growth Zone or Green Wedge Zone Schedule 2 to Road Zone Category 1.

- Amend Planning Scheme Map 7PAO to delete the PAO1 from land within the road reserve for the Western Port Highway.

- Amend Planning Scheme Map 10PAO to delete the PAO1 from land within the road reserves for the Western Port Highway and Thompsons Road; and place a PAO1 on land at 172P Aylmer Road, 590 and 620 Western Port Highway and 635 Hall Road.

- Amend Planning Scheme Map 14PAO to delete the PAO1 from land within the road reserve for the Western Port Highway; and place a PAO1 on land at 635 and 570S Hall Road, 840R, 950, 980-1020, 1050, 1120, 1140, 1150, 1170, 1180 and 1200 Western Port Highway, 590 and 600 Cranbourne-Frankston Road, 15 Carrboyd Road and 181W and 224R Browns Road.

Frankston Planning Scheme

- Amend Planning Scheme Map 6 to rezone land within the road reserve for Ballarto Road from Rural Conservation Zone Schedule 2 to Road Zone Category 1.

- Amend Planning Scheme Map 3PAO to delete the PAO2 from land within the road reserve for Hall Road; replace the PAO2 on land at 490, 500, 510 and 550 with a PAO1; and place a PAO1 on land at 565, 605, 665, 671, 675, 685, 695, 715, 735, 865 and 875 Western Port Highway, 880 Thompsons Road and 475, 510 and 550 Hall Road.

- Amend Planning Scheme Map 6PAO to delete the PAO1 from land within the road reserve for Ballarto Road; and place a PAO1 on land at 875, 905, 925M, 935, 945, 955, 965, 995, 1025, 1035, 1045, 1055, 1075, 1145, 1155, 1165, 1171, 1175, 1181, 1185, 1195, 1199M, 1205, 1207 and 1209 Western Port Highway, 10 Maraline Road, 605, 610 and 650 Ballarto Road and 505, 515, 525, 565, 550, 560 and 570 Cranbourne-Frankston Road.

Greater Dandenong Planning Scheme

- Amend Planning Scheme Map 9PAO to delete the PAO1 from land within the road reserve for the Western Port Highway.

- Amend Planning Scheme Map 12PAO to delete the PAO1 from land within the road reserve for the Western Port Highway; and place a PAO1 on land at 265, 335 and 325 Western Port Highway and 875-885 Thompsons Road.

2 THE PROJECT

2.1 Overview

The Western Port Highway (North) Upgrade project, as facilitated by the planning scheme amendments, involves the expansion of the dual carriageway road between South Gippsland Freeway (SGF) and approximately 1.2km south of Cranbourne-Frankston Road (CFR) to freeway standard. Existing public acquisition overlays (PAO) in the planning schemes provide space for some of the upgrade works but are not sufficient for the full freeway upgrade.

Over most of the length of the project the additional width of the expanded reservation (PAO) will be added to the west of the existing Highway where land is less developed for urban use. South of Ballarto Road it is shifted to the east to avoid the Langwarrin Bushland Reserve. Substantial new reservation (PAO) will be required around each of the proposed interchanges, including additional land east and west of the existing Highway at Wedge Road, Hall Road and Cranbourne-Frankston Road. The expanded reservation is also required to accommodate the additional carriageways to modern standards as well as necessary other facilities including a shared use pathway, intersection treatments, re-alignment of intersecting roads and to accommodate and avoid constraints such as native vegetation.

The Western Port Highway currently operates as a declared primary arterial road. No regular public transport services run on this road except for a single bus service which crosses the Highway on Cranbourne-Frankston Road. The project will make priority provision for future bus services through interchanges in east–west and/or north-south directions.

A shared pedestrian/cyclist path exists along the east side of Western Port Highway between Moreton Bay Boulevard and north of Thompsons Road and cyclists are able to ride along the shoulder along the whole of the Western Port Highway. A signalised pedestrian crossing of Western Port Highway exists at Moreton Bay Boulevard. The project will provide the links between the existing shared use path and the sections to be provided in future development of urban land to complete the path along the east side of the Western Port Highway for the entire project length.

By agreement with the Department of Transport, Planning and Local Infrastructure (DTPLI), allowance for a possible future railway line has been made in the project design and proposed reservation. This will allow for the establishment of a potential future link between the existing metropolitan system at Lyndhurst and the Port of Hastings. The impacts of the railway line will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings, as discussed further in Section 2.5.3.

2.2 Project objectives

The following objectives have been developed for the Western Port Highway (North) Upgrade project.

Transport

- Provide a transport facility that can safely and efficiently accommodate the long term north-south and east-west traffic demands of the region.
- Allow for the provision of a rail line in the Western Port Highway (WPH) median.
- Promote sustainable transport modes by integrating, connecting and facilitating the expansion of existing and proposed pedestrian, cyclist and bus networks.
- Mitigate local accessibility impacts by ensuring that safe and convenient alternative access routes are available to properties abutting or near WPH.
- Ensure that construction can be undertaken in a manner that minimises traffic impacts.

Economic

- Be economically viable and provide a net community benefit.
- Support population growth and economic development in the region, particularly associated with the Casey-Cardinia Growth Corridor, Dandenong South Industrial Area and Port of Hastings.

Social

- Complement, support and integrate with existing and proposed land use.
- Minimise impact to existing residences and businesses along WPH.
- Minimise the extent of land acquisition, particularly in developed urban areas and urban growth areas.
- Maintain landscape and scenic values in rural areas.
- Avoid or minimise impact to cultural heritage sites, particularly sites of high significance.

Environment

- Avoid, minimise or offset impact to native flora and fauna, particularly the habitats of threatened or endangered species.
- Incorporate measures to mitigate traffic noise and air quality impacts in accordance with relevant policies.

2.3 Proposed freeway upgrade works

Works proposed for the Western Port Highway (North) Upgrade project are shown in the concept design drawings in Appendix A and by example in Figure 2.1.

Project design has progressed as necessary to fix a public acquisition overlay boundary. Design for the project will be finalised at a later stage when the upgrade is required. The current planning scheme amendments are only for the reservation of the required land. At the time when construction funding is available planning permits and other approvals that are required for the project will be sought.

The preferred design features and provisions for the project are as follows:

- Eight lane urban freeway cross-section along WPH north of Cranbourne-Frankston Road, generally comprising six lanes for general traffic and two auxiliary lanes for ramp traffic, and six lane divided cross-section along WPH south of Cranbourne-Frankston Road.
- Restriction of all access to the freeway to interchanges only.
- Full movement interchanges at South Gippsland Highway (existing interchange), Glasscocks Road, Thompsons Road (separate planning study and project), Hall Road and Cranbourne-Frankston Road and a northerly half diamond interchange at Wedge Road.
- Closure of all other road and driveway access to WPH and selected driveway access to cross-roads, with access restored via existing or new local roads and/or driveways and an overpass of WPH provided at Ballarto Road.
- Selected intersection upgrades to accommodate traffic diverted by closures of Moreton Bay Boulevard and Ballarto Road at WPH.
- Priority measures for north-south and/or east-west buses at all full movement interchanges.
- Shared pedestrian/cyclist path along the east side of WPH between South Gippsland Highway and the Cranbourne Rail Line and between Cranbourne-Frankston Road and the southern limit of the project, with connections to shared use paths by others between the Cranbourne Rail Line and Cranbourne-Frankston Road.
- Pedestrian/cyclist overpasses of the Cranbourne Rail Line and nearby WPH.
- Shared pedestrian/cyclist paths and signalised pedestrian crossing facilities at interchanges.
- Landscaping along WPH and at interchanges, and native vegetation offset planning at other locations to mitigate flora and fauna impacts.
- Allowance for a possible future railway line in the WPH reservation, with the rail line located west of WPH between the Cranbourne Railway Line and approximately 600m south of Glasscocks Road and within the WPH median further south.

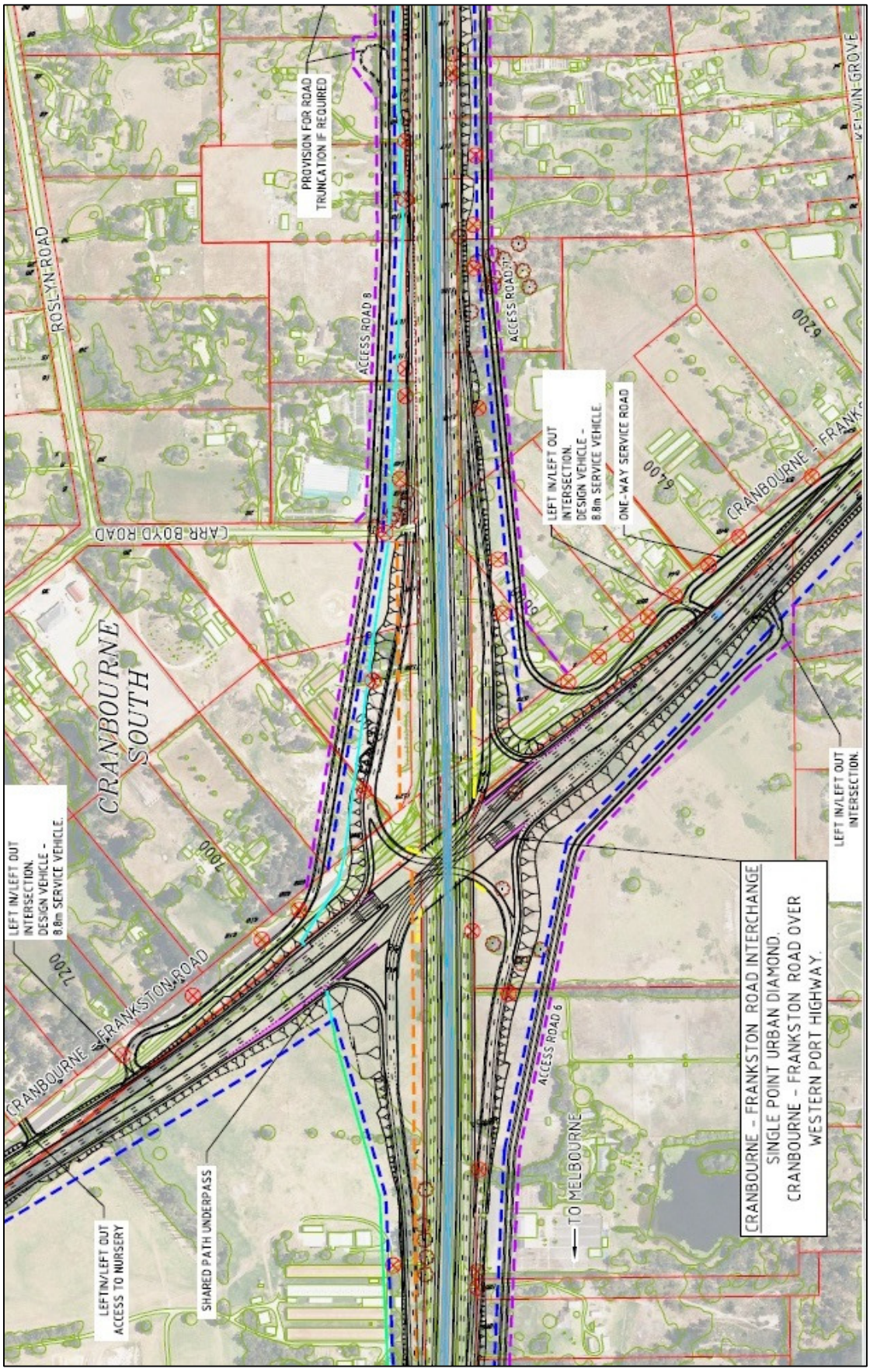


Figure 2.1 Example of freeway upgrade project concept

2.4 Project options and selected project elements

In the process of design for the project during the planning study VicRoads has examined options for various project elements. The options were assessed against project objectives including social, environmental and economic criteria as discussed below.

The preferred option is described in Section 2.3 and in shown on the drawings in Appendix A. The principal options examined during the planning study are described below.

2.4.1 Cross-section

Four options for the Western Port Highway (WPH) cross-section have been identified and assessed as shown in Transport Infrastructure Assessment (VicRoads, July 2014) in Appendix B.

The option of providing an at-grade arterial road within the existing road reserve was rejected, as it does not accommodate forecast traffic demands and does not allow for a possible future rail line to the Port of Hastings. Urban and rural freeway options without allowance for a railway line were also rejected, as the absence of a railway line would be inconsistent with current Government policy.

The preferred option comprises the following:

- Freeway along WPH, with eight lanes north of Cranbourne-Frankston Road and six lanes south of Cranbourne-Frankston Road to accommodate forecast traffic demands as discussed in Section 5.1.

- Allowance for a rail line generally in the WPH median, as discussed in Section 2.5.3, with an urban rather than rural freeway cross-section adopted to minimise property and environmental impacts.

The adopted cross-section for WPH is consistent with current design standards, and includes 3.5m wide traffic lanes and 3m wide shoulders. The additional 15m width provided for the rail line accommodates two pairs of tracks (ie. one train in each direction), a refuge zone for rail staff and adequate clearance to any overpass piers in the median. (Refer to Figure 2.2)

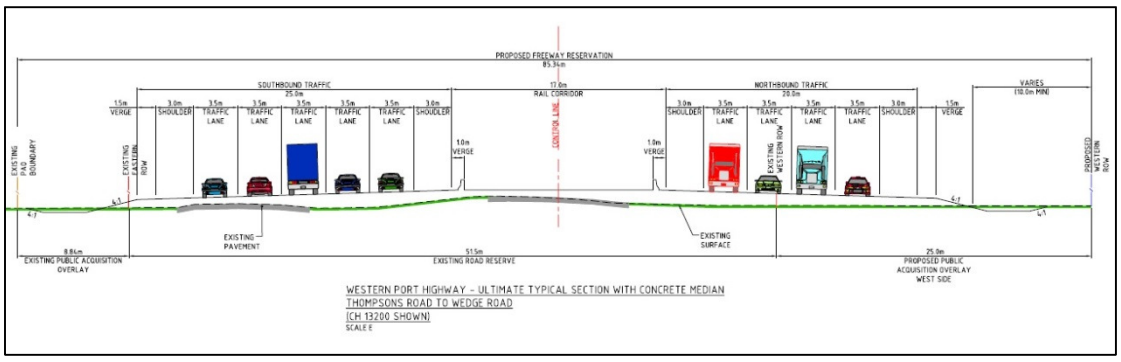


Figure 2.2 Typical cross-section

2.4.2 Alignment

Various options for the horizontal and vertical alignment of Western Port Highway (WPH) and its cross roads have been identified and assessed as shown in Transport Infrastructure Assessment (VicRoads, July 2014) in Appendix B. The preferred option comprises the following:

- Realignment of WPH to the west as necessary to avoid impact to existing development east of WPH between South Gippsland Highway and Thompsons Road.

- Generally straight alignment along WPH south of Thompsons Road to provide best traffic operation, with greater acquisition of land to the west between Thompsons Road and Ballarto Road to minimise impact to the urban growth area and greater acquisition of land to the east between Ballarto Road and Cranbourne-Frankston Road to avoid impact to the Langwarrin Bushland Reserve.

- WPH generally at grade to maximise traffic efficiency along WPH and minimise construction impacts, except at the Glasscocks Road interchange where WPH is over Glasscocks Road to avoid impact to existing urban development east of WPH.

Various options for connecting the proposed rail line to the existing Cranbourne Rail Line have been considered, including the two options discussed in Concept Design and Engineering Considerations (AECOM, June 2014) in Appendix A.

All rail line options sought to locate the rail line within the freeway median as soon as appropriate to make use of the grade separations provided at the freeway interchanges. One option matched into the median north of Glasscocks Road and the other option matched into the median south of Glasscocks Road. The latter option included a separate rail overpass of Glasscocks Road just west of the freeway interchange.

The options assessment considered rail line grade and land requirements and the implications for the freeway design and construction. It was assumed that the rail line would be constructed sometime after the freeway, and hence the option that minimised the provisions that would need to be made for the rail line during the freeway construction was preferred.

The preferred option locates the proposed rail line west of WPH between the Cranbourne Rail Line and approximately 600m south of Glasscocks Road and within the WPH median further south. (Refer to drawings in Appendix A)

It has not been necessary to change the minimum horizontal and vertical alignment criteria for the WPH project to accommodate the rail line. The horizontal and vertical alignments of the rail line generally follow the horizontal and vertical alignments of WPH, except for the vertical alignment of the rail line between Glasscocks Road and Thompsons Road, at and south of the southern limit of the study, and beneath the side road overpasses. At these locations, the rail line follows a different vertical alignment to achieve a maximum grade of 2% and minimum vertical clearance of 7.1m. (Refer to drawings in Appendix A)

2.4.3 Interchanges

Various options for the interchanges of Western Port Highway (WPH) with the cross roads have been identified and assessed as shown in Transport Infrastructure Assessment (VicRoads, July 2014) in Appendix B. The assessment considered the need for ramps, and the horizontal and vertical alignments of WPH and the cross-roads at each potential interchange location.

Consideration was given to the existing and likely future function and classification of roads intersecting with WPH and the length and spacing of these roads to determine the preferred interchange locations. Consideration was also given to the forecast volumes on these roads and any interchange ramps, and the access needs of existing and future development along these roads.

Full movement interchanges are proposed at South Gippsland Highway, Glasscocks Road, Thompsons Road, Hall Road and Cranbourne-Frankston Road, consistent with these roads being existing and/or future primary arterial roads. Traffic network modelling shows these interchanges will attract significant traffic volumes, and consequently provide important connections within the road network.

A northerly ramp interchange is proposed at Wedge Road, which is a future secondary arterial road east of WPH, to service future industrial development and provide associated economic benefits to the region. An overpass without ramps is proposed at Ballarto Road, which is the only other future secondary arterial road crossing the Western Port Highway.

Glasscocks Road

The preferred option for Glasscocks Road comprises a single point interchange, with WPH realigned to the west and over Glasscocks Road to avoid existing residential development east of the Highway and minimise construction related traffic impacts.

Options that required acquisition of urban residential development, such as associated with a straight alignment along WPH or a realignment of Glasscocks Road over WPH were rejected due to the adverse social impact. The option of providing WPH as an underpass was rejected due to construction difficulties and potential groundwater impacts. The diamond interchange option was also rejected as it requires more land and provides less efficient traffic operation than the preferred single point interchange.

Thompsons Road

The preferred option for Thompsons Road was developed as part of a separate and approved planning study and planning scheme amendment. It comprises a full movement diamond interchange, with access to the service station in the south-east corner of the interchange via the southbound entry ramp. WPH is realigned to the west and over Glasscocks Road to avoid existing residential development east of the Highway.

The land reserved for the interchange was based on a design that matched to the existing WPH. Some additional land needs to be reserved as part of the current amendments to accommodate match-in to the ultimate Western Port Freeway and restoration of access to affected properties.

Wedge Road

The preferred option for Wedge Road comprises a northerly half diamond interchange, with WPH centrally aligned, Wedge Road realigned to the north to minimise property and construction related traffic impacts, and Wedge Road over WPH to provide best traffic operation.

This option is consistent with the *Cranbourne West Precinct Structure Plan (CWPSP)*, which proposes industrial uses along WPH between Thompsons Road and Hall Road. These uses will benefit from the good access provided to Western Port Highway via Wedge Road. Commuter and freight traffic along Thompsons Road will also benefit from reduced volumes along Thompsons Road due to the relief provided via the Wedge Road interchange.

The option of providing a full movement interchange at Wedge Road was rejected as southerly ramps are not likely to attract sufficient traffic to justify the provision of such ramps. Options that caused significant adverse impact to the Cranbourne West Precinct and/or State Dogs Centre (Dogs Victoria), such as realigning WPH to the east or west or realigning Wedge Road to the south, were also rejected.

The CWPSP identifies the need for future development to set aside land for the northerly half diamond interchange. The property east of WPH affected by the interchange may be redeveloped prior to any interchange construction. The redevelopment would be consistent with the land requirements for the interchange, minimising any adverse impact. The property west of WPH (in the City of Frankston) affected by the interchange is undeveloped and hence the impact of land acquisition should be manageable.

Casey City Council, which is responsible for land to the east of WPH at this location, strongly supports the northerly half diamond interchange because the access it will provide to WPH is likely to encourage industrial development, and provide associated employment and economic benefits to the local area.

Frankston City Council, which is responsible for land to the west of WPH at this location, objects to the provision of any interchange ramps at Wedge Road. This Council contends that the interchange ramps fail to serve any component of their community and have the potential to force the rezoning and development of Green Wedge land. Frankston City Council has advised its intention to make a submission about the planning scheme amendments in this regard, with this submission expected to be subject to consideration at the panel hearing for the amendments.

The interchange provides limited access to the west, as Frankston City Council has no plans to upgrade Wedge Road west of WPH and connect Wedge Road to Taylors Road. The effectiveness of the interchange is not dependent on the extension of Wedge Road to the west. The primary benefit of the interchange for land uses within the City of Frankston is to provide good access to the State Dogs Centre, which is a State significant dog centre attracting a substantial number of visitors to weekend events. Any exclusion of interchange ramps at Wedge Road would force all visitors to the Dog Centre to use the WPH/Hall Road interchange, increasing the travel time and distance of most trips.

It is considered that the net impact of the northerly half diamond interchange to properties within the City of Frankston is positive. Any future rezoning of the land west of WPH would be a separate matter, subject to consideration of various factors including the desirably to protect Green Wedge land from rezoning and development.

Hall Road

The preferred option for Hall Road comprises a single point interchange, with WPH aligned to the east to avoid the south-west service station, Hall Road realigned to the north to minimise property and construction related traffic impacts, and Hall Road over WPH to provide best traffic operation. This option is consistent with the *Cranbourne West Precinct Structure Plan*, except for the need to acquire more land from the north and less land from the south than originally anticipated.

Options that required acquisition of the south-west service station were rejected, as the service station is the only northbound service station in the broader area and it provides safety benefits by allowing drivers to stop and rest. The closed diamond interchange option was rejected as it did not accommodate the high forecast traffic volumes. Options that caused greater adverse impact to traffic during construction and/or the farming property to the south-west were also not preferred.

Ballarto Road

The preferred option for Ballarto Road comprises an overpass without any interchange ramps, with Ballarto Road over WPH and allowance for a construction side track to the south to minimise property impacts. This option is consistent with the *Cranbourne West Precinct Structure Plan*.

The preferred treatment of Ballarto Road was subject to extensive investigations and consultations with Frankston and Casey City Councils. Options with and without ramps were considered, together with various alignment options for Ballarto Road. Traffic modelling shows that southerly ramps attract a very low volume, which does not justify the provision of such ramps. Northerly ramps are more attractive to traffic, however, such an option would not be consistent with the *Cranbourne West Precinct Structure Plan*.

There is no compelling justification for northerly ramps, as the ramps would largely service residential uses rather than major employment areas. Adequate alternative routes are available if ramps are not provided.

Frankston City Council, which is responsible for land to the west of WPH at this location, objects to VicRoads' proposed treatment of Ballarto Road. Further discussion of options for Ballarto Road is provided in Section 7.

Cranbourne-Frankston Road

The preferred option for Cranbourne-Frankston Road comprises a single point interchange, with Cranbourne-Frankston Road realigned to the north to minimise property and construction related traffic impacts, and Cranbourne-Frankston Road over WPH to provide best traffic operation.

Options that caused greater adverse impact to the rural residential area, such as centrally aligning Cranbourne-Frankston Road or aligning WPH to the west were rejected. Diamond and loop interchange options were rejected as they did not accommodate the high forecast traffic volumes. The northerly ramp only option was also rejected as it did not accommodate traffic demands to and from the south.

2.4.4 Access restoration

The Transport Infrastructure Assessment (VicRoads, July 2014) in Appendix B discusses options for restoring access to properties affected by road and driveway closures associated with the project.

The project involves closure of access to the Western Port Highway at Monash Drive, Northey Road, Bayliss Road, Moreton Bay Boulevard, Carbine Way, Pandora Drive, Ballarto Road and Carrboyd Road. Adequate alternative routes are generally available to accommodate traffic diverted by these closures. The project includes signalisation of the Glasscocks Road/Aylmer Road intersection to better accommodate traffic diverted by the closure of Moreton Bay Boulevard. The project also includes upgrade of the Ballarto Road/Potts Road and Hall Road/McCormicks Road intersections as necessary to accommodate increased turning movements associated with the closure of Ballarto Road.

An initial access restoration option was presented to the local community in May 2010. Aspects of this option were not favoured by the community and VicRoads modified its proposals to better address community views and needs where possible. The preferred option was developed on the basis of providing safe and convenient alternative access to affected properties and minimising adverse social, environmental and economic impacts.

The preferred option comprises eight new sealed local roads adjacent to the Western Port Highway (WPH) reservation at selected locations to provide access to properties, with these roads generally:

- Accommodated within a 15m or 18m wide reservation, depending on traffic volumes.
- Connected to arterial roads with proposed full movement interchanges with WPH (rather than partial or no interchanges) to minimise travel distances and times.
- Discontinuous between arterial roads to minimise potential for rat running by through traffic.
- Only accommodating left in/left out movements at arterial roads to minimise impact to the operation and safety of the arterial roads.

The preferred option also includes access to the service station south-west of the WPH/Hall Road intersection via the northbound off-ramp and on-ramp, and possibly also one of the above local roads. It also includes access to the service station south-east of the WPH/Thompsons Road intersection via the southbound entry ramp, consistent with previous planning for the Thompsons Road Duplication Project.

Access to properties in the Dandenong South Industrial Area Extension, the undeveloped urban area in Lynbrook and the urban growth areas in Cranbourne West and Cranbourne South is assumed to be restored via roads proposed as part of development of these areas. If the project proceeds prior to these roads being in place, VicRoads would restore access to these properties in an appropriate manner.

Access is restored to all affected properties except the service station near Moreton Bay Boulevard. The service station near Northey Road will also lose all access to WPH and will only have access via Northey Road. Safe access cannot be provided to and from these two service stations via WPH due to the close proximity to interchange ramps at South Gippsland Highway and Glasscocks Road respectively.

2.5 Provision for transport modes

2.5.1 Buses

Government policy and the statutory framework for transport infrastructure require all major new road projects to incorporate public transport infrastructure. Inclusion of such infrastructure is consistent with the environmental sustainability objectives of the State Planning Policy Framework, *Transport Integration Act* and other strategies discussed in Section 3 of this report.

Assessment of existing and future bus networks and discussions with the former Department of Transport indicate that the project should desirably include the following provisions for buses:

- Provision for bus lanes on Cranbourne-Frankston Road (CFR) at its interchange with WPH, as CFR is an existing Bus Priority Route at this location.
- Provision for bus lanes on Glasscocks Road at its interchange with WPH, as Glasscocks Road is a future Bus Priority Route at this location.
- No allowance for bus lanes on Hall Road, Wedge Road and Ballarto Road, as these roads are not existing or proposed future Bus Priority Routes.
- No allowance for bus lanes on WPH, as bus volumes would likely be minimal and not justify the provision of dedicated lanes.
- Provision for bus stops and lanes on the interchange ramps at Glasscocks Road, Hall Road and Cranbourne-Frankston Road, to facilitate the possible use of WPH by express buses and dropping off of passengers at the cross-roads.

The preferred option for the project is shown on the drawings in Appendix A and includes all of the above provisions except at the Cranbourne-Frankston Road interchange ramps. Bus stops and lanes (for WPH express buses) cannot be feasibly provided at these interchange ramps due to traffic operation requirements and the skewed alignment of Cranbourne-Frankston Road. Any buses exiting at the Cranbourne-Frankston Road interchange would need to perform a U-turn on Cranbourne-Frankston Road to re-enter WPH.

2.5.2 Pedestrians and cyclists

The State Planning Policy Framework requires all major road projects to incorporate cycling infrastructure. Inclusion of pedestrian and cycling infrastructure is consistent with the environmental sustainability and health and wellbeing objectives of the State Planning Policy Framework, Transport Integration Act and other strategies discussed in Section 3.

A shared pedestrian/cyclist path exists along the east side of WPH between Moreton Bay Boulevard and north of Thompsons Road. The Lynbrook and Lyndhurst Development Plan and Cranbourne West Precinct Structure Plan propose extension of this shared path north and south to provide a continuous path between the Cranbourne Rail Line and Ballarto Road. It is expected that development plan for the recently rezoned land east of WPH between Ballarto Road and Cranbourne-Frankston Road will include a shared use path.

It is not considered necessary to provide a shared use path within the freeway reservation between the Cranbourne Rail Line and Cranbourne-Frankston Road, as the shared use path through the adjacent development is considered adequate to accommodate cycling and pedestrian demands.

Assessment of pedestrian and cyclist needs and discussions with the three abutting Councils indicate that the project should include the following:

- Shared use path between South Gippsland Highway and the Cranbourne Rail Line and between Cranbourne-Frankston Road and the southern limit of the project (to provide a continuous shared use path for the full length of WPH as part of the project or by others).
- Shared use path overpass of the Cranbourne Rail Line to provide north-south connectivity.
- Shared use path overpass of WPH near the Cranbourne Rail Line to provide east-west connectivity.
- Underpasses or signalised crossings of all cross roads to provide north-south connectivity.
- Shared pedestrian/cyclist paths on all cross-roads.
- Signalised pedestrian crossings facilities at all interchanges.

The preferred option for the WPH project is shown on the drawings in Appendix A and includes all of the above proposals.

2.5.3 Rail freight

As discussed in Section 3, the *Victoria – The Freight State, Plan Melbourne* and the State Planning Policy Framework require planning to allow for the development of the Port of Hastings and the protection of a WPH transport corridor to link the Port to the broader road and rail networks. The project is consistent with this framework, as it:

- Facilitates good road access to the Port of Hastings by including adequate road capacity to address the traffic demands of a fully developed port facility.
- Protects the preferred option for providing rail access to the Port of Hastings by including additional land, approximately 15m in width, for a railway line.

Allowance for Hastings Rail Link (Raylink Consulting, March 2014) in Appendix C discusses options for accommodating rail freight to the Port via either the WPH corridor or East Link – Peninsula Link – Stony Point Rail Line corridor. The WPH is the preferred corridor considering access needs and traffic, safety and public space impacts.

Development proposals for the Port of Hastings, and associated road and rail requirements, are subject to the outcomes of detailed planning and assessment processes proposed to be undertaken by the Port of Hastings Development Authority in the coming years.

This report does not consider the impacts of an operating railway line. The assessment of the railway line has been limited to consideration of the impacts of the additional land required and any implications to the road design. The impacts of the railway line will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

This assessment approach is consistent with the Minister for Planning's decision on the referral on the need for an Environment Effects Statement (EES) for the Western Port Highway (North) Upgrade. The Minister determined that an EES is not required for a project scope which clearly excluded the construction and operation of the railway line. In making his decision the Minister anticipated *"that any future development of rail in this corridor will be subject to a separate referral coupled with either the proposed Port of Hastings or Western Port Highway (South) Upgrade."*

There is no current reservation for the railway line in Western Port Highway (South) between Cranbourne-Frankston Road and the Port of Hastings. Hence the reservation of land for a railway line in Western Port Highway (North) will not in itself facilitate the construction of the railway line. The railway line is solely required to provide access to the Port of Hastings, and its provision would be dependent on the future reservation of land for the railway line in Western Port Highway (South).

It is considered prudent to reserve the land required for a rail line in Western Port Highway (North) as part of the planning scheme amendments to reserve the land for the freeway because it provides the following:

- Certainty to Councils and property owners of potential future land requirements, enabling land development and future use to proceed in a manner that is complementary to possible transport uses and does not preclude the possibility of rail.

- Flexibility in the event of unforeseen land use changes, particularly at and near the Port of Hastings, with the land reserved for rail able to be used for another form of transport infrastructure such as a bus way or truck only lanes if considered appropriate in the future.

- Less social, economic and environmental impact than the option of providing a separate rail corridor parallel to and offset from the WPH road corridor.

2.6 Project implementation

There is currently no intention to fund or construct the freeway upgrade in the short term, other than to reserve the land required. Therefore limited consideration has been given to the proposed construction and contracting approach.

The timing of the upgrade will depend on forecast and actual traffic increases, development patterns and activity in the urban growth areas, Port of Hastings and other employment areas and ultimately government prioritisation and funding. The upgrade may be constructed as a single project or in multiple stages.

The first priority is the upgrade of the WPH/Thompsons Road intersection, which has been the subject of a recent planning study and planning scheme amendment associated with the duplication of Thompsons Road between Dandenong-Frankston Road and South Gippsland Highway.

The project represents the remainder of the stages for upgrading WPH between South Gippsland Freeway and south of Cranbourne-Frankston Road to freeway conditions. The scope of these stages is unclear at this time, and may involve construction of isolated interchanges (eg. Hall Road interchange) or conversion of a section of WPH to freeway conditions (eg. section between South Gippsland Freeway and Thompsons Road, including Glasscocks Road interchange).

Interim works may be undertaken along WPH prior to the conversion to freeway conditions. For example, development of land in the Cranbourne West Precinct may involve an interim roundabout at WPH/Wedge Road and an interim connection to the WPH/Ballarto Road roundabout. Any interim access arrangements would be removed at the time of freeway conversion and property access provided via alternative means.

Construction of any rail line in the WPH median may not be undertaken until after WPH is upgraded to freeway conditions. The rail line construction is a separate project, subject to a separate project assessment and approval process as discussed in Section 2.5.3.

3 STRATEGIC PLANNING AND POLICY CONTEXT

3.1 State transport and strategic planning context

3.1.1 Transport Integration Act 2010

The *Transport Integration Act (TIA)* provides the framework for the provision of an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible State. The Act requires that all decisions affecting the transport system be made within the same integrated decision-making framework, support the same objectives and recognise that land-use planning and transport planning are interdependent.

Under the system established by the Act strategic land-use decisions are brought under the policy framework by the creation of interface bodies and interface legislation. Planning authorities under the Planning and Environment Act 1987 are 'interface bodies' under the TIA. When a planning authority is preparing a planning scheme amendment that is likely to have a significant impact on the transport system, the authority and its officers must have regard to the TIA's transport system objectives and decision making principles. Other interface bodies of relevance to the consideration of the project are:

- Department of Transport, Planning and Local Infrastructure (DTPLI) and the Port of Hastings Development Authority (POHDA) when developing the rail line to the Port of Hastings.
- Metropolitan Planning Authority when implementing the metropolitan planning strategy and preparing precinct structure plans.

The Act provides a framework with six transport system objectives and eight decision-making principles, which decision makers including interface bodies must have regard to in discharging their responsibilities.

An assessment of the project against the transport system objectives and decision-making principles specified in the Act, is shown in Table 3.1

Table 3.1 Assessment Against Objectives and Principles of Transport Integration Act

Transport Integration Act	Assessment of Project
Transport System Objectives	
Provide a means by which persons can access social and economic opportunities to support individual and community wellbeing.	Project includes provisions for all transport system users and proposals for restoring access to directly affected properties to maintain access opportunities.
Facilitate economic prosperity.	Project addresses long term travel demands of the region and reduces the costs and delays of traffic congestion. Project improves access to existing and proposed places of employment, business and service, including Dandenong South Industrial Area, Cardinia-Casey Growth Corridor and the Port of Hastings.

Transport Integration Act	Assessment of Project
Actively contribute to environmental sustainability.	Project includes provisions for buses, cyclists and pedestrians to promote use of environmentally sustainable transport modes. Project developed on the basis of avoiding or minimising environmental impacts where appropriate (considering social and economic impacts) and includes native vegetation offsets.
Provide for the effective integration of transport and land use and facilitate access to social and economic opportunities.	Project includes sufficient traffic lanes and regularly spaced, high capacity interchanges to provide good access to communities and employment areas. Project integrated with adjacent land uses (existing and proposed) and developed on the basis of minimising land use impacts and facilitating consistency with land use plans and policies. Project land requirements to be reserved in a timely manner to inform land use planning and development proposals.
Facilitate network-wide efficient, coordinated and reliable movements of persons and goods at all times.	Project addresses long term travel demands of the region and reduces the costs and delays of traffic congestion. Project includes provisions for all transport system users to facilitate access between different travel modes.
Be safe and support health and wellbeing.	Project will improve safety along WPH. Project includes provisions for cyclists and pedestrians to promote cycling and walking and achieve associated health benefits.
Decision Making Principles	
Integrated Decision Making	Project scope informed by the views of various State Government agencies, Local Government and affected businesses and property owners.
Triple Bottom Line Assessment	Project scope based on assessment of options against economic, social and environmental factors.
Equity	Project includes provisions for all transport system users and requires land acquisition from both urban and rural areas. Project developed to address the needs of existing and future generations.
Transport System User Perspective	Project includes provisions for all transport system users, including general traffic, buses, cyclists, pedestrians and road and rail freight.
Precautionary Principle	Project scope informed by various environmental investigations (eg. flora and fauna, noise and air quality) and based on assessment of options against environmental and other factors.

Transport Integration Act	Assessment of Project
Stakeholder Engagement and Community Participation	Project scope informed by the views of stakeholders, property owners and the community.
Transparency	Project development has included the provision of information to stakeholders, property owners and the community in relation to the project scope and impacts and decision making process.

The Western Port Highway (North) Upgrade project is consistent with the objectives and decision making principles of the Transport Integration Act 2010 because the project:

- Is an outcome of an integrated decision making process involving VicRoads, Department of Transport, Planning and Local Infrastructure, other government agencies and relevant Councils.
- Includes provisions that address the needs of existing and future generations and all transport system users
- Contributes to social and economic prosperity by providing for efficient, reliable and safe movement of persons and goods and improving access to places of employment, business and service.
- Contributes to environmental sustainability by including provisions for public transport, cyclists and pedestrians.

3.1.2 Victorian transport, freight and logistics planning

Plan Melbourne - Melbourne Planning Strategy

Planning for transport in Melbourne is being integrated with long term strategic planning for land use via *Plan Melbourne (2014)*. The Plan will help guide the growth of Melbourne over a 35 year time horizon. It acknowledges Western Port Highway as an important transport corridor with particular emphasis on its provision of access to the Port of Hastings. (Refer to Section 3.1.3)

Victoria: The Freight State – The Victorian Freight and Logistics Plan (VFLP)

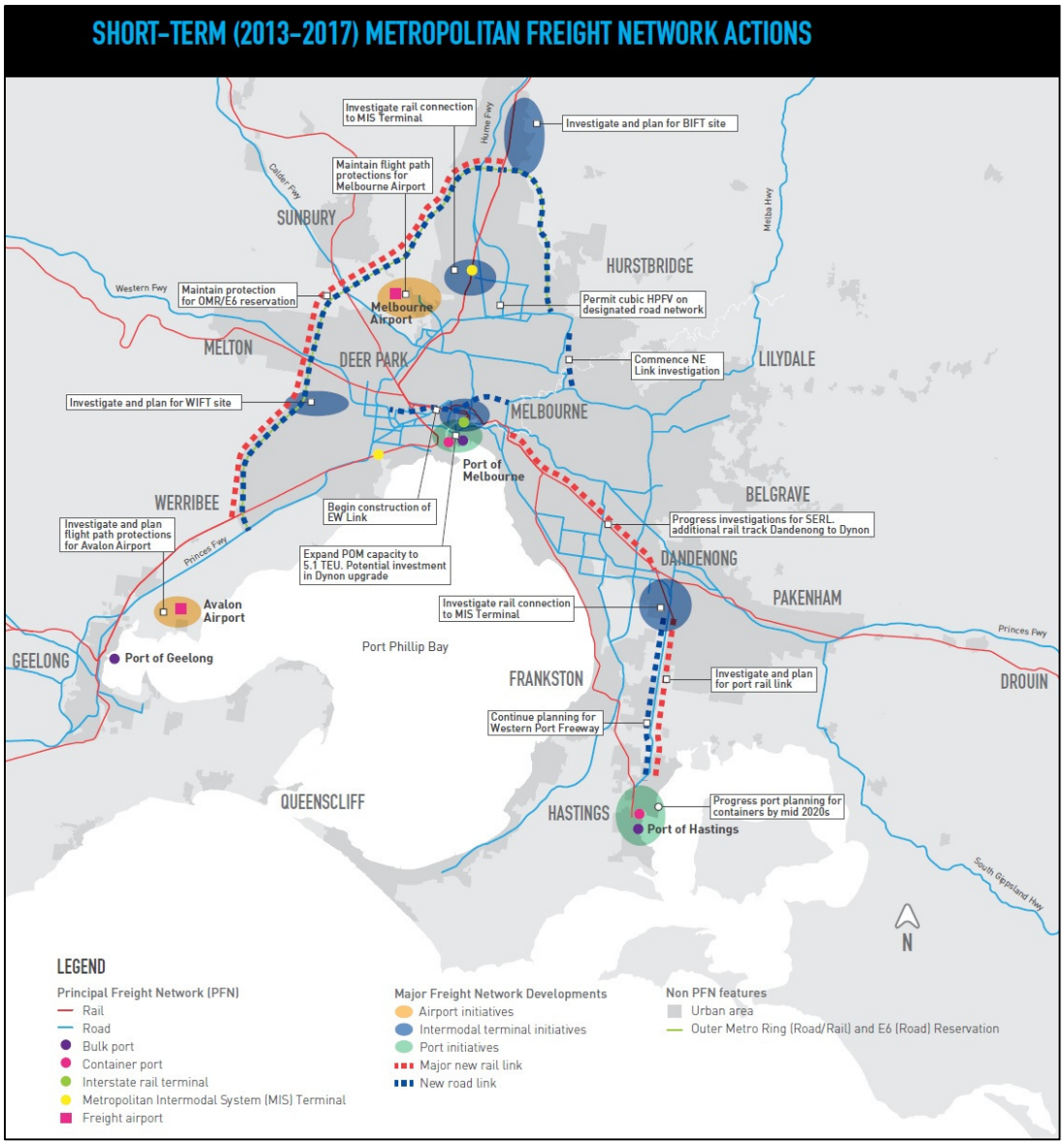
Victoria - The Freight State (2013) is an evidence based freight and logistics plan to support the growth and development of Victoria's economy through effective management of the growing freight task. The plan examines long term freight forecasts for the State up to 2050 and uses these forecasts to create and model a wide range of freight network scenarios that can inform decision making for future projects and initiatives.

The goal of the plan is *"To maximise the contribution of the freight and logistics sector to Victoria's productivity and liveability."* To do this, the following objectives have been adopted:

- Plan for and deliver capacity at key freight gateways in a timely manner.
- Improve the efficiency and productivity of key freight network links.

- Ensure future options are secured for key freight network developments.
- Progressively decentralise freight activities from central Melbourne to selected outer industrial areas.
- Protect and enhance access to markets for regional Victoria and adjoining catchments.

A summary of the short-term actions specified in Victoria – The Freight State for the metropolitan freight network is shown in Figure 3.1.



Source: Victoria – The Freight State (page 88)

Figure 3.1 Metropolitan freight network actions

The plan has a clear strategy for meeting the rapidly growing container demand. It proposes to invest in expanded capacity at the Port of Melbourne in the short term and create additional capacity at the Port of Hastings to service expected demand from the mid-2020s to 2050 and beyond.

The plan acknowledges Western Port Highway as a major freight network asset and the preferred road and rail transport corridor to connect the Port of Hastings to the broader transport network. One of its long term actions is *"progressively upgrading the Western Port Highway to form a full freeway standard link to meet increasing transport movements generated by the growth of Melbourne's south east and the development of the Port of Hastings."*

Consistent with this long term action, the plan includes short term actions to *"plan for upgrading the Western Port Highway corridor to full freeway standard"* and *"investigate and plan for a transport corridor for the Port of Hastings, which includes provision for adequate rail connections."*

Victoria – The Freight State (2013) supersedes previous policies including *Port Futures (2009)* and *Freight Futures (2008)*, which are still referenced in the State Planning Policy Framework. The Draft Planning Policy Framework proposes to remove these out-dated policies and incorporate *Victoria – The Freight State (2013)*.

Shaping Melbourne's Freight Future

Shaping Melbourne's Freight Future (2010) is a discussion paper for the development of a network of intermodal hubs for moving rapidly growing volumes of port-related freight around Melbourne. It proposes three Inland Ports in Melbourne's western, northern and south-eastern suburbs. *Victoria – The Freight State (2013)* incorporates findings from this discussion paper.

One of the options for the south-east inland port is a property located north-west of the intersection of Western Port Highway with Glasscocks Road. The project facilities good access to this property, by providing a high capacity interchange at Glasscocks Road and allowing for the provision of a future rail line along WPH.

Western Port Highway is a key component of the metropolitan freight network. Its proposed upgrade is consistent with and will strongly support existing policies for the metropolitan freight and logistics system including the linking of employment areas, ports and intermodal facilities.

Port of Hastings

The Victorian Government has established the Port of Hastings Development Authority (POHDA) with the principal task of overseeing the development of Hastings as Victoria's second container port after the Port of Melbourne. The Government has committed $110M over four years (2013/14 to 2016/17) for POHDA to progress planning, design, environmental assessments, approvals and business case preparation for the development of the port.

The Western Port Highway is the principal transport corridor to the port and allowance for a rail line is being included in the proposed reservation to facilitate the construction of a rail connection to the port in the long term if required.

Planning for the Port of Hastings as Melbourne's second container port is underway. Plans for the port rely on Western Port Highway as the principal transport corridor for the movement of road and rail freight.

3.1.3 Metropolitan planning

Planning for Melbourne has evolved over the last decade commencing in 2002 with the metropolitan planning strategy *Melbourne 2030,* which was updated in 2008 by *Melbourne @ 5 million*. These strategies were recently replaced by *Plan Melbourne (May 2014)*, which provides the current framework for metropolitan planning.

In 2005 the Victorian Government refocussed the management of strategic planning in metropolitan growth areas by releasing substantial new land for urban development, establishing a Growth Areas Authority (GAA) and creating a process for managing the planning and release of new urban areas.

In 2006 via Amendment VC41 the Government introduced reference to Growth Area Framework Plans (GAFP) into the State Policy section of the relevant planning schemes and an Incorporated Document setting out the GAFPs for five metropolitan growth areas including Casey-Cardinia. These GAFPs which are currently referenced in the planning schemes have formed the recent basis for municipal strategic planning. They are proposed to be replaced in metropolitan planning schemes as the basis for strategy by Growth Corridor Plans (GCP) released in 2012.

The Metropolitan Planning Authority was established in 2013, replacing GAA and incorporating broader planning responsibilities across Victoria.

Casey-Cardinia Growth Area Framework Plan 2006

The *Casey-Cardinia Growth Area Framework Plan* (2006) sets the long-term strategic planning directions to guide the development of one of Melbourne's five growth areas. The Casey-Cardinia growth area extends from Endeavour Hills in the north-west, to Pakenham in the east and Cranbourne in the south. Western Port Highway between South Gippsland Freeway and Ballarto Road forms part of the western boundary of the growth area.

The Plan identifies Western Port Highway as a possible future freeway between South Gippsland Freeway and Cranbourne-Frankston Road. The Plan also identifies Glasscocks Road, Thompsons Road, Wedge Road and Hall Road as arterial roads within the growth area.

The project is consistent with and supportive of the Casey-Cardinia Growth Area Framework Plan through its proposed upgrade of the road to freeway status and the inclusion of interchange locations on arterial roads identified in the Plan.

Amended Urban Growth Boundaries (UGB) 2010

In August 2010 the Government enacted amendment VC68 to the metropolitan planning schemes which put in place a number of the initiatives including the expansion of the Urban Growth Boundary (UGB). This expansion of the UGB and expanded area of Urban Growth Zone (UGZ) included a substantial increase to the extent of the UGB in Casey but no changes to the west in the vicinity of the Western Port Highway.

At the same time the GAA invited submissions to the preparation of Growth Area Framework Plans (GAFP) for the land included in the UGB by amendment VC68.

Logical Inclusions 2012

In June 2012 the Victorian Government released the results of an inquiry into the "Logical Inclusions" to the Urban Growth Boundary. In accepting the recommendations of the Advisory Committee the Minister for Planning approved the inclusion of Casey Area 1 into the Urban Growth Zone (UGZ). This site is the land bounded by Western Port Highway, Ballarto Road and the Cranbourne-Frankston Road. In approving its inclusion in the UGZ the Advisory Committee noted that:

The Brompton Lodge submission tabled plans for a future upgrade to the Western Port Highway to freeway status, with a rail link within the road reserve. The date of this upgrade is not known. However this would have a significant impact on the adjacent green wedge, and on the existing land use activities within Casey Areas 1 and 2. The proposed upgrade would result in a severe barrier to habitat and to the effective use of green wedge land.

The point of this comment appears to be to justify the inclusion of the site (Area 1) in the UGZ and not to criticise the upgrade of WPH. In rezoning the land the Minister for Planning on advice of his Advisory Committee appears to acknowledge that the upgrade will occur in the future.

The project is acknowledged in major land use decision making by Government and forms a principal boundary to the current and foreseeable Urban Growth Area in the Lynbrook/Cranbourne West area.

Growth Corridor Plans 2012

Coincident with the release of the "Logical Inclusions" report the Victorian Government released a series of Growth Corridor Plans. They are intended to *"set out the strategic plan for the future development of Melbourne's Growth Corridors over the next 30 to 40 years."* In this regard the broad purpose of the plans is the same as the Metropolitan Strategy, with the Plans comprising corridor planning input to the Strategy.

The Growth Corridor Plans (GCP) provide a broad land use framework that will guide the future planning and development of new precincts. Before development can commence, detailed planning for each precinct must occur in the form of individual Precinct Structure Plans (PSPs), which must be 'generally in accordance' with the GCPs.

The GCPs have thus replaced the incorporated GAFPs as the basis for the strategic planning and management of metropolitan growth corridors. The planning schemes still contain the out-dated GAFPs as an Incorporated Document and references to the GAFP's in state policy. It is intended to replace the GAFPs in the planning schemes with the adopted GCPs in the near future after completion of biodiversity approvals by the Commonwealth Government.

South East Growth Corridor Plan 2012

The South East Growth Corridor Plan (SEGCP) which is shown in part in Figure 3.2 replaces the Casey Cardinia Growth Area Framework Plan.

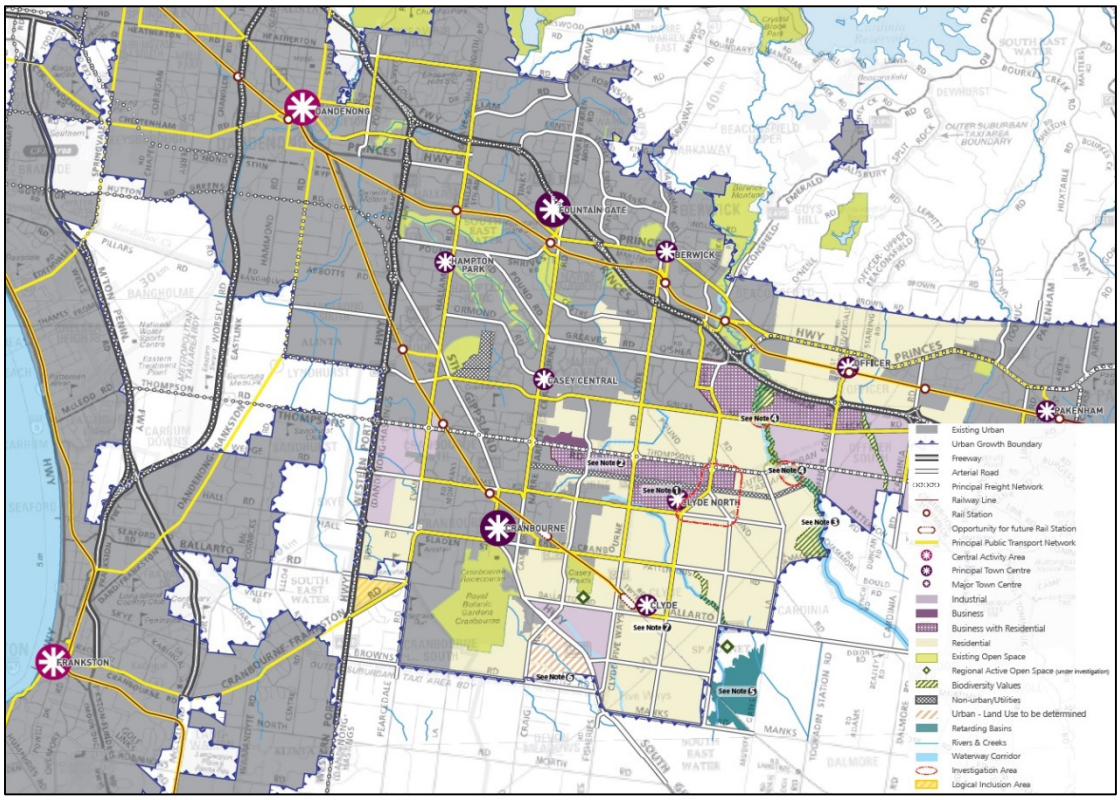


Figure 3.2 Extract of South East Growth Corridor Plan

The SEGCP, which identifies Western Port Highway as part of the Principal Freight Network, expresses its vision in part as:

"Development of the South-East Growth Corridor will continue to enhance the region's self-sufficiency, sustainability and distinctiveness by providing a good range of new employment opportunities which are well-connected by appropriate transport links between homes and new and existing jobs. New job opportunities will be provided at Pakenham, Thompsons Road and South Gippsland Highway, as well as in the existing and identified town centres and within new residential communities."

In setting the long term context for its key provisions the Plan notes that:

"..over the longer term, the potential exists for the South East Growth corridor to be re-positioned as central to an emerging sub-regional economic triangle comprising Dandenong, the Casey/Cardinia employment area and the Port of Hastings. The proposed land use and transport framework will facilitate this outcome, by providing opportunities for greater business investment and better sub-regional transport connectivity." (Section 6.1 The South East Growth Corridor Plan)

It addresses "Planning for Freight" in Section 6.6.3 of the SEGCP by noting in the role of road transport with the reference:

"parts of the road network will be planned to carry freight as a key function, including:
- *the Princes Freeway;*
- *the Western Port Highway".*

In addressing the proposed role of rail the SEGCP notes:

"The key future rail development is the proposed Lyndhurst-Hastings port rail line."

The project is consistent with and supportive of the South East Growth Corridor Plan in supporting the efficient functioning of the corridor and in particular its future economic development.

Plan Melbourne - Metropolitan Planning Strategy 2014

The Department of Transport, Planning and Local Infrastructure (DTPLI) has recently finalised *Plan Melbourne (May 2014)* to replace the former Government's *Melbourne 2030* (2002) for managing urban growth and development across metropolitan Melbourne. Recent population forecasts predict strong growth in Melbourne's population, from 4.3 million persons in 2013 to 7.7 million persons in 2051

Plan Melbourne includes an objective *to "provide an integrated transport system connecting people to jobs and services, and goods to market".* Relevant directions (3.1 to 3.6) that support this objective are to *"improve access to job-rich areas across Melbourne", "improve transport infrastructure, services and affordability in Melbourne's newer suburbs"*, *"improve the efficiency of freight networks"* and *"improve landside transport access to*" ports.

Direction 3.5 of the strategy supports the delivery of the freight and logistics actions identified in *Victoria - The Freight State*. The direction includes a map (Map 23) that identifies Western Port Highway as part of the Principal Freight Network (road and rail).

Direction 3.6 gives high priority to the development of the Port of Hastings to supplement the Port of Melbourne from the mid-2020s, and the associated preservation of a transport corridor along the Western Port Highway for enhanced rail and road connections. It proposes the progressive conversion of the Western Port Highway to freeway standard in the medium to long term to service port demands. The project is consistent with this direction.

Plan Melbourne's vision for the southern subregion is shown in Figure 3.3.

Plan Melbourne provides strong recognition of the Western Port Highway as a principal transport corridor in the metropolitan south east. It emphasises the Highway's role as a key freight transport facility linking the major employment areas of Dandenong South and the Port of Hastings. The amendments and the project are consistent with the strategy.

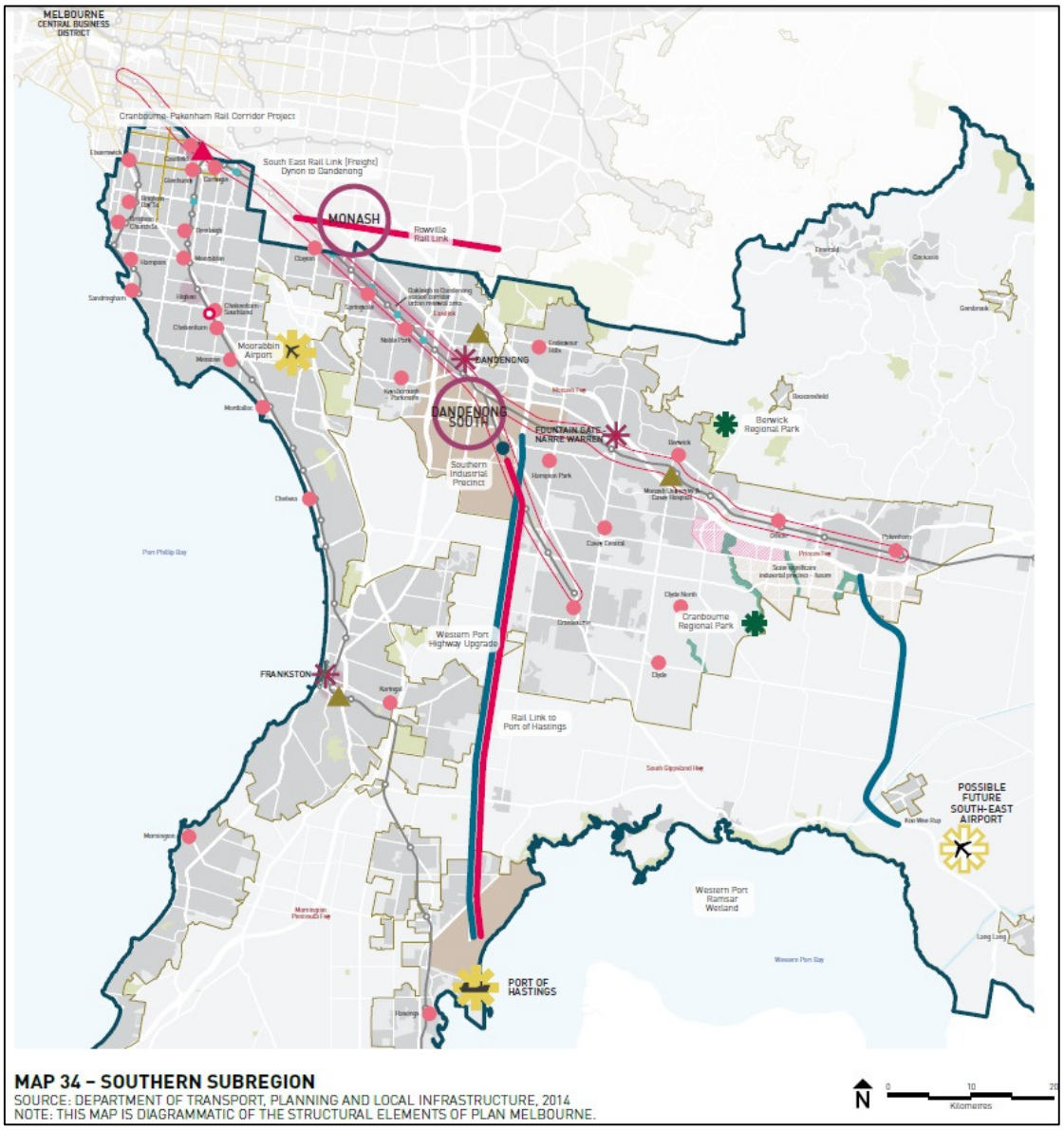


Figure 3.3 Plan Melbourne's vision for the southern subregion

3.2 Local strategic planning context

3.2.1 *Casey C21 - Building a Great City* (2011)

Originally produced in 2002 as a long term vision for the future development of the City, Casey C21 has been revised and adopted as *Casey C21 Building a Great City*, by Council in 2011. The Vision includes 12 themes around which the strategy defines the community's aspirations and values. Key outcomes and influences from Casey C21 that are relevant to the project include:

- Ensure that regional and local planning integrates land use and transport outcomes.
- Provide for an arterial road grid that maximises road based transport accessibility throughout Casey.
- Upgrade Casey's east-west arterial road links in order to improve regional accessibility, especially to regional jobs.
- Direct regional through traffic onto designated routes in order to minimise impacts on local areas.
- Support the development of an integrated transport network to service the future of the Port of Hastings.
- Work in partnership to link the existing and projected employment areas of Dandenong and Cardinia with Casey's employment centres, and integrate these areas with major transport connections such as the Monash Freeway, the Pakenham railway line, and Thompsons Road to create an integrated jobs corridor.

Figures included in the strategy emphasise a number of key aspirations for transport and land use in Casey. They include:

- Western Port Highway as a principal freeway/highway link providing connection to major employment and activity centres including Dandenong South, Cranbourne West and the Port of Hastings.
- Development of key east-west arterial road capacity links from Clyde Road to the Western Port Highway and further west into Dandenong-Frankston Road.

Casey C21 recognises the importance of the Western Port Highway in the regional road transport network in the short and long term. The upgrade of Western Port Highway will be consistent with key aims of C21 for the interaction of land use and transport.

3.2.2 *Lynbrook and Lyndhurst Development Plan (2013)*

The *Lynbrook and Lyndhurst Development Plan, 2013 (LLDP)* applies to the suburbs of Lynbrook and Lyndhurst. More specifically, it applies in the area bounded by Northey Road and Olive Road in the north; Western Port Highway in the west; Thompsons Road in the south and Evans Road, South Gippsland Highway and Hallam South Road in the east.

The LLDP has been adopted by council of the City of Casey most recently in September 2013 and has been adapted from previously adopted plans including the Lyndhurst Local Structure Plan 1 and the Lynbrook Development Plan. The LLDP has provided the basis for preparation of a development contributions plan for the area as well as the administration of planning permits and development control.

It is proposed to introduce key aspects of the LLDP to the Casey Planning Scheme but at this time the LLDP itself is not incorporated into the Scheme. It remains an adopted council plan. (Refer to Figure 3.4)

The LLDP includes the following road network proposals:

- Upgrade of WPH to a six lane divided road.
- Uncontrolled intersection on WPH at Northey Road.
- Controlled intersections on WPH at Moreton Bay Boulevard, Glasscocks Road and Thompsons Road.

The proposed treatment of the intersections of WPH with Northey Road and Moreton Bay Boulevard are not consistent with the proposed conversion of WPH to freeway conditions. Measures to mitigate the impacts of the road closures are discussed in Section 2.4.4.

Aspects of the Lynbrook and Lyndhurst Development Plan conflict with the proposed Western Port Highway (North) Upgrade project. The project includes signalising the Glasscocks Road/Aylmer Road intersection to mitigate the impacts of closing Moreton Bay Boulevard.

3.2.3 Cranbourne West Precinct Structure Plan (2012)

The Cranbourne West Precinct Structure Plan (CWPSP) was introduced into the Casey Planning Scheme as an Incorporated Document and carries the statutory weight of the scheme. Land use and development decisions in the area must be taken in accordance with the provisions of the Plan.

The CWPSP applies to land abutting the east side of Western Port Highway between Thompsons Road and Ballarto Road. It is generally bounded on the east by Evans Road and Cranbourne Frankston Road. Under the CWPSP, land abutting the Highway is generally proposed for industrial development north of Hall Road and residential development south of Hall Road. A business hub is proposed to front the south side of Thompsons Road and the balance of the CWPSP area is proposed for residential community with a range of densities and planned community facilities, open space and infrastructure.

Key road transport features of the CWPSP (refer to Figure 3.5) are consistent with VicRoads requirements in general and the Western Port Highway (WPH) upgrade project in particular. The key features are:

- Recognition of the proposed upgrade of the WPH to freeway standard.
- Interim intersection treatments on WPH are at-grade roundabouts at Wedge Road and Ballarto Road.

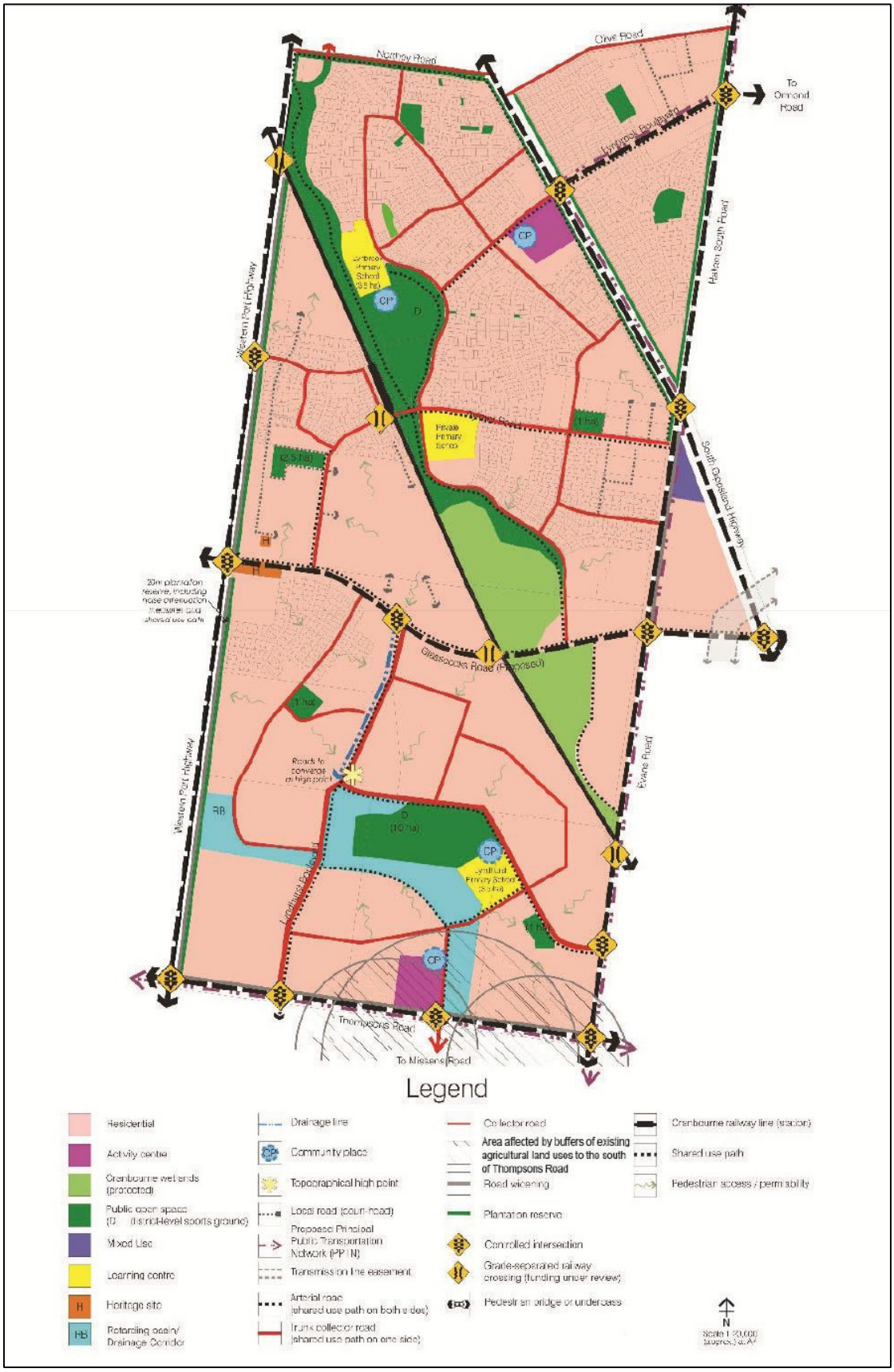


Figure 3.4 Lynbrook and Lyndhurst Development Plan

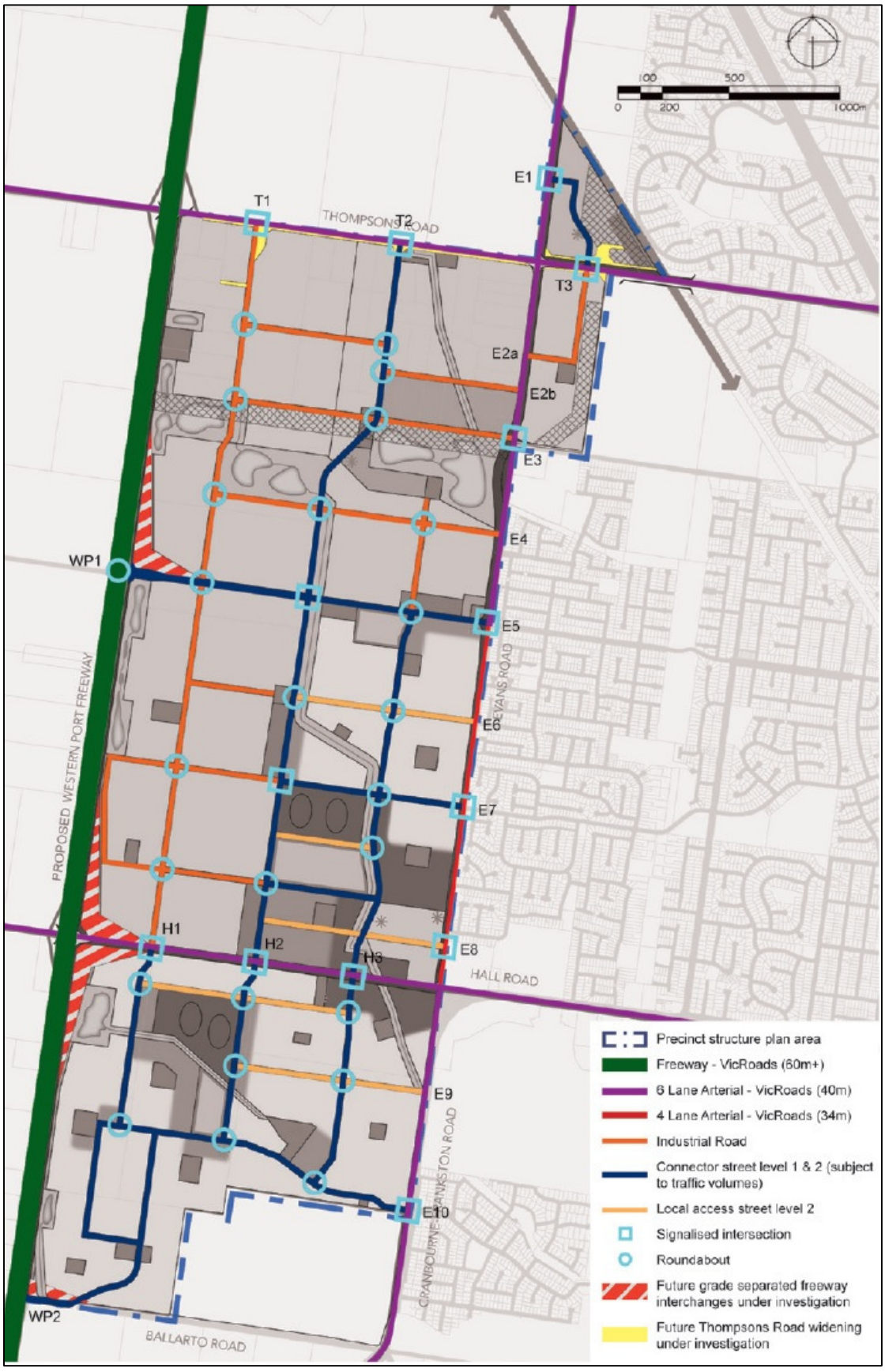


Figure 3.5 Cranbourne West Precinct Structure Plan – Road Network Plan

- Ultimate WPH freeway access limited to grade separated interchanges at Thompsons Road, Wedge Road (northerly half diamond only) and Hall Road and an overpass of WPH at Ballarto Road.

- New north-south road, located approximately 300m to 400m east of WPH, to provide access to properties abutting WPH.

- A tree reserve must be provided within residential subdivisions along the interface with the Western Port Highway/Future Freeway between Hall Road and Ballarto Road that provides a continuous shared use path and a double row of trees.

The CWPSP identifies land, known as investigation areas, that needs to be set aside for the interchanges and overpasses at Wedge Road, Hall Road and Ballarto Road. The land required for the project is slightly different to the investigation areas. Casey City Council and the affected property owners have been advised of the changes, and have provided no objection.

The Western Port Highway (North) Upgrade project is consistent with and fully supportive of the Cranbourne West Precinct Structure Plan. The Precinct is being developed to respect and complement the existing and long term function of Western Port Highway as a major transport facility in the region.

3.2.4 Dandenong South Industrial Area Extension Structure Plan (2009)

The Dandenong South Industrial Area Extension Structure Plan (DSIAESP) was introduced into the Greater Dandenong Planning Scheme as an Incorporated Document and carries the statutory weight of the scheme. Land use and development decisions in the area must be taken in accordance with the provisions of the DSIAESP.

The DSIAESP applies to industrial land at Keysborough and Lyndhurst which will be developed for industrial purposes. At Lyndhurst, land under the control of the DSIAESP abuts the west side of Western Port Highway between Bayliss Road and Glasscocks Road. (Refer to Figure 3.6)

Key road network features of the DSIAESP are consistent with VicRoads requirements in general and the Western Port Highway (North) Upgrade project in particular. The key features are:

- Requires the access at Bayliss Road to be closed when one of the following occurs:

    - Upon declaration of the Western Port Highway to a Freeway;

    - If the extension of the railway to the north of Bayliss Road is permitted to cross Bayliss Road to the south as part of the development of the land on the south side of Bayliss Road as an Inland Port; or

    - VicRoads determines that the operation of the intersection of Bayliss Road and the Western Port Highway is not satisfactory.

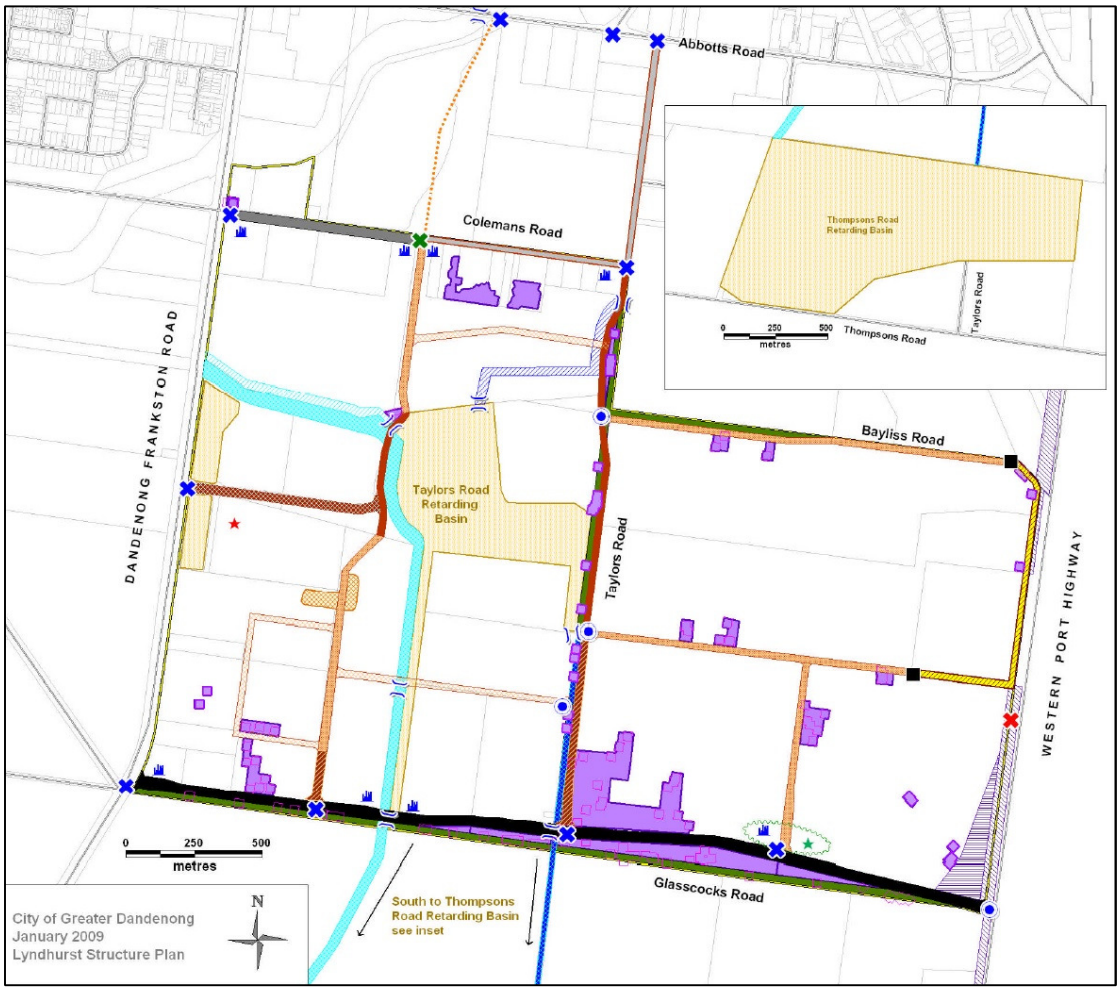


Figure 3.6 Lyndhurst Structure Plan

- Provides for a temporary access to the Western Port Highway at the intersection of Moreton Bay Boulevard, to the satisfaction of VicRoads.

- Restricts permanent access to the Western Port Highway to the intersection with Glasscocks Road.

The Western Port Highway (North) Upgrade Project is consistent with and supportive of the Dandenong South Industrial Area Extension Structure Plan. The Precinct is being developed to respect and complement the existing and long term function of Western Port Highway as a major transport facility in the region by incorporating requirements for closure of Bayliss Road and a grade separated interchange at Glasscocks Road.

3.3 State planning policy

State planning policy is embodied in the State Planning Policy Framework (SPPF) of the Victoria Planning Provisions (VPP) which means that it is included in every planning scheme in Victoria. The project is subject to the operation of Casey Planning Scheme, Frankston Planning Scheme and Greater Dandenong Planning Scheme. The aspects of the SPPF contained in these schemes that is relevant to the consideration of the Western Port Highway (North) Upgrade Project are examined in this section.

Relevant policies from the SPPF are referred to by the clause number of the planning scheme with direct quotes shown in italics and quotation marks.

Clause 11 – Settlement

Clause 11.02-2 Planning for growth areas

The objective of this Clause is:

"To locate urban growth close to transport corridors and services and provide efficient and effective infrastructure to create benefits for sustainability while protecting primary production, major sources of raw materials and valued environmental areas."

The proposed upgrade of Western Port Highway (North) is supportive of this policy because it will allow for continued provision of effective infrastructure for the new and emerging growth areas of Casey-Cardinia and the Port of Hastings.

Clause 12 - Environmental and Landscape Values

Clause 12.01-1 Protection of biodiversity

The objective of this Clause is:

"To assist the protection and conservation of Victoria's biodiversity, including important habitat for Victoria's flora and fauna and other strategically valuable biodiversity sites."
and;

Clause 12.01-2 Native vegetation management

The objective of this Clause is:

"To ensure that permitted clearing of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity."

VicRoads has conducted environmental surveys of the project area and where possible the project has been designed to respect the policy objectives to protect and conserve biodiversity and to achieve net gain in the extent and quality of native vegetation. VicRoads will meet and secure its net gain requirements at the time that the project is being implemented and these undertakings will form part of its permit application prior to construction.

Planning for the proposed upgrade of Western Port Highway has respected the intent of these biodiversity policies and in so doing is supportive of their achievement.

Clause 15 – Built Environment and Heritage

Clause 15.03-2 Aboriginal cultural heritage

The objective of this Clause is:

"To ensure the protection and conservation of places of Aboriginal cultural heritage significance."

VicRoads has surveyed the project area and consulted the local Aboriginal communities in the development of the conceptual design for the proposed works. Aboriginal cultural heritage items in the form of isolated artefacts, artefact scatters and scarred trees may be impacted by the proposed freeway works. Before any works are commenced VicRoads will obtain any necessary permits and will complete a Cultural Heritage Management Plan for the project.

VicRoads will work with the Aboriginal communities to minimise impacts on cultural heritage during final design for the project.

Planning for the proposed upgrade of Western Port Highway has respected the intent of these cultural heritage policies and in so doing is supportive of their achievement.

Clause 18 – Transport

Clause 18.01-1 Land use and transport planning

The objective of this Clause is:

"To create a safe and sustainable transport system by integrating land-use and transport."

The proposed freeway (with allowance for a possible future railway line) has been planned in consultation with adjacent major urban development projects and the responsible planning authorities. Plans for the growth areas and the future Port of Hastings will reflect the integration of the Highway with the long term strategic land use of the area.

Clause 18.01-2 Transport system

The objective of this Clause is:

"To coordinate development of all transport modes to provide a comprehensive transport system."

The proposed upgrade of Western Port Highway has been planned to accommodate the need of all transport modes. It incorporates provisions for public transport, cycling and walking consistent with the strategies in this clause.

The amendments are consistent with the strategy to *"reserve land for strategic transport infrastructure",* as they reserve land for a freeway and possible future railway line to the Port of Hastings.

Clause 18.02-4 Management of the road system

The objective of this Clause is:

"To manage the road system to achieve integration, choice and balance by developing an efficient and safe network and making the most of existing infrastructure."

The proposed upgrade of Western Port Highway will ensure that the use of existing infrastructure in the road and adjacent road systems are optimised. It is consistent with the strategy to *"selectively expand and upgrade the road network to provide for …upgrading of key freight routes [and] ongoing development in outer suburban areas*".

18.03-1 Planning for ports

The objective of this Clause includes in part:

"To recognise the transport and logistics role of Victoria's commercial trading ports at Melbourne, Geelong, Hastings and Portland in supporting the State's economy and to facilitate their ongoing sustainable operation and development."

The amendments are consistent with the Clause's strategy to *"identify and protect key transport corridors linking ports to the broader transport network".*

18.05-1 Develop freight links

The objective of this Clause is:

"To further develop the key transport gateways and freight links and maintain Victoria's position as the nation's premier logistics centre."

The proposed upgrade of Western Port Highway is consistent with the strategy to *"Improve the freight and logistics network to optimise freight handling",* and in particular supports development of an intermodal freight terminal in Dandenong.

Planning for the upgrade will ensure that the objectives of this policy to integrate land use and transport and optimise use of infrastructure for all transport modes, including freight traffic generated by the Dandenong South Industrial Area and the Port of Hastings, are supported.

3.4 Local planning policy

Local planning policy is embodied in the Local Planning Policy Framework (LPPF) of every planning scheme in Victoria. The LPPF comprises a Municipal Strategic Statement (MSS) and Local Planning Policies (LPP). The MSS is a concise statement of the key strategic planning, land use and development objectives for the municipality and the strategies and actions for achieving the objectives. Local Planning Policies are specific statements of policy used to implement the objectives and strategies of the MSS.

The project is subject to the operation of Casey Planning Scheme, Frankston Planning Scheme and Greater Dandenong Planning Scheme. The aspects of the LPPF contained in these schemes that is relevant to the consideration of the Western Port Highway (North) Upgrade Project are examined in this section.

Relevant policies from the LPPF are referred to by the clause number of the planning scheme with direct quotes shown in italics and quotation marks.

3.4.1 Municipal Strategic Statement (MSS) - Casey

The Casey MSS is focussed on the five regions within the Municipality and its functional linkages. Roads are acknowledged as important infrastructure in achieving municipal strategic goals and the Western Port Highway forms the boundary of the City and is acknowledged in a number of locations as an important transport infrastructure facility.

The main references are noted as follows:

Clause 21.03 Vision – Strategic Framework contains the figure titled "Framework Plan" which identifies the highway as an existing main road abutting existing and future urban areas. Intersections of the highway with Thompsons Road and the Cranbourne Frankston Road are identified as "Municipal Gateways".

In ***Clause 21.07 The Farm***, the context statement notes that:

"South Gippsland Highway is the main traffic thoroughfare in this Region. It is notably used by tourists on their way to Phillip Island. However, Western Port Highway is also an important north-south connector and it provides the municipality's primary link to the deep water port at Hastings and the Mornington Peninsula."

The Strategies in this clause propose to:

"Discourage commercial development at inappropriate locations along Western Port Highway, South Gippsland Highway and other main roads."

A similar control over commercial development is included in ***Clause 21.08 The Bay***.

Clause 21.12 Image notes that the "gateways" (as noted in the Framework Plan) and "main travel corridors" (as noted in Transportation Corridors Plan – unable to be located in MSS) are among the prominent and highly visible areas in Casey which are worthy of attention to image management.

The strategy notes a range of measures for managing the image and amenity of Casey's physical environment. A concluding action proposed is to develop a:

"Main Roads Design Policy to assess and guide development along main roads."

Clause 21.14 Infrastructure contains a figure which includes the Highway. This Ultimate Transport Framework Plan identifies the Western Port Highway as part "*High Quality Access Controlled Road*" and part "*Divided Road".* The clause goes on to identify "*Further strategic work*" as including:

"Preparing a Municipal Transportation Strategy for Casey incorporating road and public transport."

The proposed freeway upgrade will not adversely affect any of the strategic policy directions contained in the Casey MSS. Aspects of the proposed upgrade including long term access control, intersection upgrades and landscape proposals will eventually support these current strategic intentions.

3.4.2 Local Planning Policies – Casey

There are three policies in Casey's Local Policies that are directly relevant to the consideration of the proposed amendment.

Clause 22.14 Infrastructure Policy

The policy identifies the importance of road infrastructure to the future development of the municipality and its rapidly growing urban areas. It notes:

"The provision of infrastructure includes development infrastructure (roads, traffic management devices, parks, active open space facilities, bike paths, etc.) and community infrastructure, particularly buildings for community activities and the like. The timely provision of high quality infrastructure is an essential ingredient for achieving the level of liveability envisaged by Casey for its new residents."

The amendments are expected to facilitate the proposed freeway upgrade, and to enable the provision of quality infrastructure in a timely manner.

Clause 22.18 Aboriginal Cultural Heritage Policy

In respect to proposed planning scheme amendments this policy states:

"A request to amend the planning scheme that, if approved, would result in additional buildings and works on substantially undeveloped land, is to be accompanied by a Community Heritage Assessment."

However it also provides a *Waiver of requirements* which states*:*

"The responsible authority may, upon request, waive all or part of the above requirements, such as for an application for minor buildings and/or works, unless a Cultural Heritage Management Plan is separately prescribed under the Aboriginal Heritage Act 2006."

VicRoads has sought and received a waiver in relation to the Community Heritage Assessment.

VicRoads has conducted an Aboriginal cultural heritage management investigation of the proposed project area. Any planning permits required for proposed future roadwork will be accompanied by a Cultural Heritage Management Plan.

Clause 22.21 Non-agricultural uses in Green Wedge Areas Policy

The policy applies to all Green Wedge, Green Wedge A and Rural Conservation zone land where a permit is required to establish a non-agricultural use. A "non-agricultural use" is a use that does not fall within the definition of 'Agriculture' in Clause 74. Strictly interpreted this means that the policy may not apply to a new road or road widening.

However, the policy intent as noted in the following objectives is relevant to the consideration of new road infrastructure as a non-urban element in the Green Wedge.

- *"To ensure that new buildings and alterations to existing buildings do not detract from the landscape and scenic values of 'green wedge' areas.*
- *To ensure that non-agricultural uses do not adversely affect or prejudice the operation of existing and/or future agricultural activities."*

The proposed freeway upgrade is generally supportive of these policies.

3.4.3 Municipal Strategic Statement (MSS) - Frankston

There are three MSS components that are relevance to the consideration of the project. Two are important because they establish important considerations for design and siting and a third because it establishes transport objectives for the municipal area.

Clause 21.06 Environmental and Landscape Values

Key objectives established under this policy of relevance are:

"Objective 2 - Maintain and enhance the current level of biological diversity in the City and encourage the retention of and revegetation with indigenous species, particularly along watercourses, the coastline and identified habitat corridors."

Objective 3 - Maintain areas of landscape or visual quality and significant trees or areas of vegetation.

A map included in the clause identifies environmentally sensitive areas which include the green wedge land adjacent to the Western Port Highway and habitat corridors and potential open space links. A "*Habitat corridor*" and "*Potential link between areas of open space*" are identified as crossing the Western Port Highway in the vicinity of the Langwarrin Bushland Reserve between Ballarto Road and Cranbourne-Frankston Road.

VicRoads has prepared the proposed road reservation based on information from environmental and landscape investigations, and avoided impact to the Langwarrin Bushland Reserve.

Clause 21.10 Built Environment and Heritage

Under this clause the key objective of relevance to the project is:

"Objective 3 - Protect and maintain the integrity of significant Aboriginal cultural heritage and "post settlement" heritage sites."

VicRoads has carried out cultural heritage assessments and prepared the proposed road reservation in consideration of these investigations.

Clause 21.11 Transport

Under this clause the key issues include:

- *"Balancing the need for the arterial road network to meet the requirements of both the Frankston community and the broader community in terms of performing a regional role.*
- *Accommodating extensions to the on-road public transport network.*
- *Catering for alternative modes of transport, including cycling.*
- *Utilising the existing transport infrastructure efficiently.*
- *The need to plan for a rail freight link between the Port of Hastings and a proposed "inland port"."*

One of the actions is to *"advocate to have any Port of Hastings rail link located in the Western Port Highway corridor."*

The proposed upgrade project will support the key issues by contributing to the long term function and efficiency of the City's arterial road system for both the local and wider community, by catering for public transport and cycling and by utilisation of existing road infrastructure. The proposed upgrade project also makes provision for the ultimate rail connection between the Port of Hastings and the Cranbourne railway line at Lyndhurst.

The proposed freeway upgrade is supportive of key transport elements of the Frankston MSS. Plans for the expanded reservation have been prepared to minimise impacts on environmental and cultural heritage values of the project area.

3.4.4 Local Planning Policies - Frankston

There are no Local Planning Policies under clause 22 of the Frankston Planning Scheme that are directly relevant to the consideration of the proposal.

3.4.5 Municipal Strategic Statement (MSS) - Greater Dandenong

The MSS contains objectives and strategies that establish the land use context and strategic importance of Western Port Highway in existing and future planning for the City of Greater Dandenong.

Clause 21.02 Municipal Profile identifies the Highway and the upgrade to freeway status as key elements of the City's transport networks.

"The planned upgrade by VicRoads, of the Western Port Highway to Freeway standards including replacement of non-conforming access points with designated grade separated interchanges needs to be considered in future land use planning."

It also identifies the position of Dandenong in relation to the Port of Hastings as follows:

"Due to its proximity to Port of Hastings and its proposed expansion, Dandenong is a strategic location for an inland port and logistics centres."

Clause 21.03 A Vision for Greater Dandenong establishes the strategic view of the future city and in doing so includes a *Strategic Framework Map* that identifies the Western Port Highway as a part of the *Principal public transport network* and also includes the potential for an additional railway line along the Dandenong to Cranbourne corridor via Lyndhurst.

Clause 21.04-3 Industrial

"Objective 3 - To develop and exploit existing infrastructure and locational advantage of the City's industrial areas."

Although the strategies that support this objective do not directly refer to the Western Port Highway, this road is one of the key transport infrastructure facilities that give rise to the objective.

This is further acknowledged by notation of the Highway as part of the *Principal Public Transport Network (Roads) (Smart Bus Routes)* on the *Strategic Industrial Framework Map* in *clause 21.04-3.*

Clause 21.07 Infrastructure and Transportation of the MSS addresses relevant issues for the project. In the contextual analysis it notes:

"Support for the long-term viability of transport links to strategic regional infrastructure, such as ports, airports and major industry as well as the local street network and good access to public transport are important to achieve economic efficiency and growth."

The clause also notes that:

"The Integrated Transport Strategy 2005 promotes the development of road and rail transfer facilities, which can encourage increased freight transport by rail, particularly freight access to the potential development of a deep water port at Hastings. Development of the East Link as an integrated transport corridor, the future development of a deep water port will see Greater Dandenong as a major freight and logistics hub bringing in many economic benefits."

Several policy components of this MSS identify the importance of arterials roads and the need for future road infrastructure. Notable among the relevant provisions in this clause are:

Clause 21.07-5 Transport Services

"*Objective 2 - To enhance the efficiency of freight movement"*, which contains the strategy to:

"2.2 Support the protection and enhancement of the existing operation and safety of arterial roads for all road users through ongoing management of vehicular access points."

The *Strategic Transport Framework plan* at the end of this clause contains reference to the Western Port Highway as a *"Principal Public Transport Network (Roads) (Smart Bus Route*s)" and also to a *"Future strategic road corridor*" along Glasscocks Road and intersecting with the Western Port Highway.

The reservation of land for the future upgrade to freeway standards, including allowance for a possible future railway line to the Port of Hastings, is supported by numerous references to the Highway in the MSS.

3.4.6 Local Planning Policies - Greater Dandenong

The Local Policies of the Greater Dandenong Planning Scheme are generally not relevant to the proposal. One policy ***Clause 22.02 Green Wedge Local Planning Policy,*** contains reference to Western Port Highway (which it also refers to as Dandenong Hastings Road) and provides some planning policy context for the proposed freeway upgrade.

In ***Clause 22.02-7 Lyndhurst Precinct*** the highway is noted as providing both context and land use management issues as follows:

"The precinct is bounded to the east and west by important north-south arterial roads, the Frankston-Dandenong Road and the Western Port Highway. These roads provide some of the more visible and accessible parts of the non-urban area and provide important entry points to the wider South-East Non-Urban Area. High visibility and good accessibility have also caused significant pressure for commercial activities along these routes."

The eventual upgrade of the Highway to freeway standard will provide a greater level of control over the establishment of adjacent commercial activities through the management of access.

4 STATUTORY REQUIREMENTS AND OWNERSHIP

The principal regulatory mechanism for the management of the use and development of land is the local planning scheme operating within municipal areas under the administration of the local council as planning authority and responsible authority.

The proposed freeway upgrade is subject to the operation of three planning schemes which apply in the municipal areas of Casey, Frankston and Greater Dandenong. Planning permits may be required under these planning schemes for the use and development of land for the upgraded road. It is not proposed to construct the upgrade in the near future and so VicRoads will not be making application at this time for any planning permits that may be required.

However to reserve the additional land required to upgrade Western Port Highway to freeway standard, an amendment is proposed to each of the three planning schemes. These planning scheme amendments which accompany this report will reserve the required land by introduction of the required public acquisition overlay (PAO1). Various changes to existing public acquisition overlays and road zones (RDZ1) within the road reserve and land owned by VicRoads are also included to provide a consistent RDZ1, without PAO, in these areas.

As background to the status of the proposed road upgrade under the three applying planning schemes the following analysis of the active provisions are documented.

The overall zoning and overlay provisions for the project area are shown in Figures 4.1 to 4.5.

4.1 Casey Planning Scheme

The Casey Planning Scheme applies to all land in the project area east of the centreline of the existing Western Port Highway for the entire length of the project from South Gippsland Freeway to south of Cranbourne-Frankston Road.

The effect of the local provisions of the Scheme is summarised in Table 4.1 at the end of Section 4.3.

In summary the project requires a planning permit under the Casey Planning Scheme for earthworks in the Green Wedge Zone (GWZ2) and Urban Growth Zone (UGZ and UGZ1). Potentially permits may be required in limited areas or locations for roadworks under the control of the Public Acquisition Overlay (PAO3), Special Building Overlay (SBO), Environmental Significance Overlay (ESO7) and Heritage Overlay (HO22). Permits may also be required for the removal of native vegetation under the provisions of Clause 52.17. These permit requirements will be the subject of a later application and are not the subject of this amendment.

Reservation and Acquisition of Land

The project within Casey requires additional land to be reserved to facilitate the construction of the freeway upgrade. Through this amendment the reservation in the form of a Public Acquisition Overlay (PAO1) is proposed to be introduced to land administered under the Casey Planning Scheme as well as land administered under the Frankston and Greater Dandenong Planning Schemes.

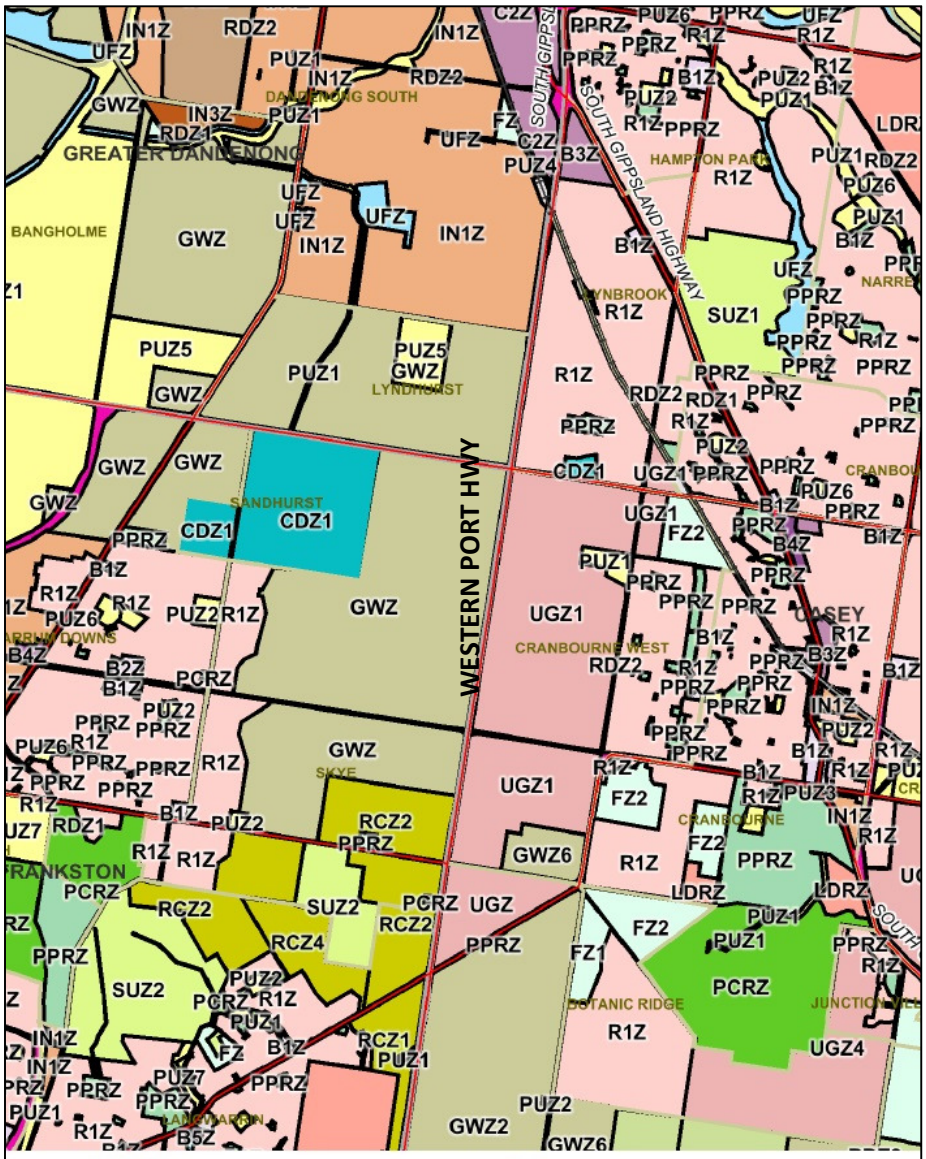


Figure 4.1 Planning scheme zones

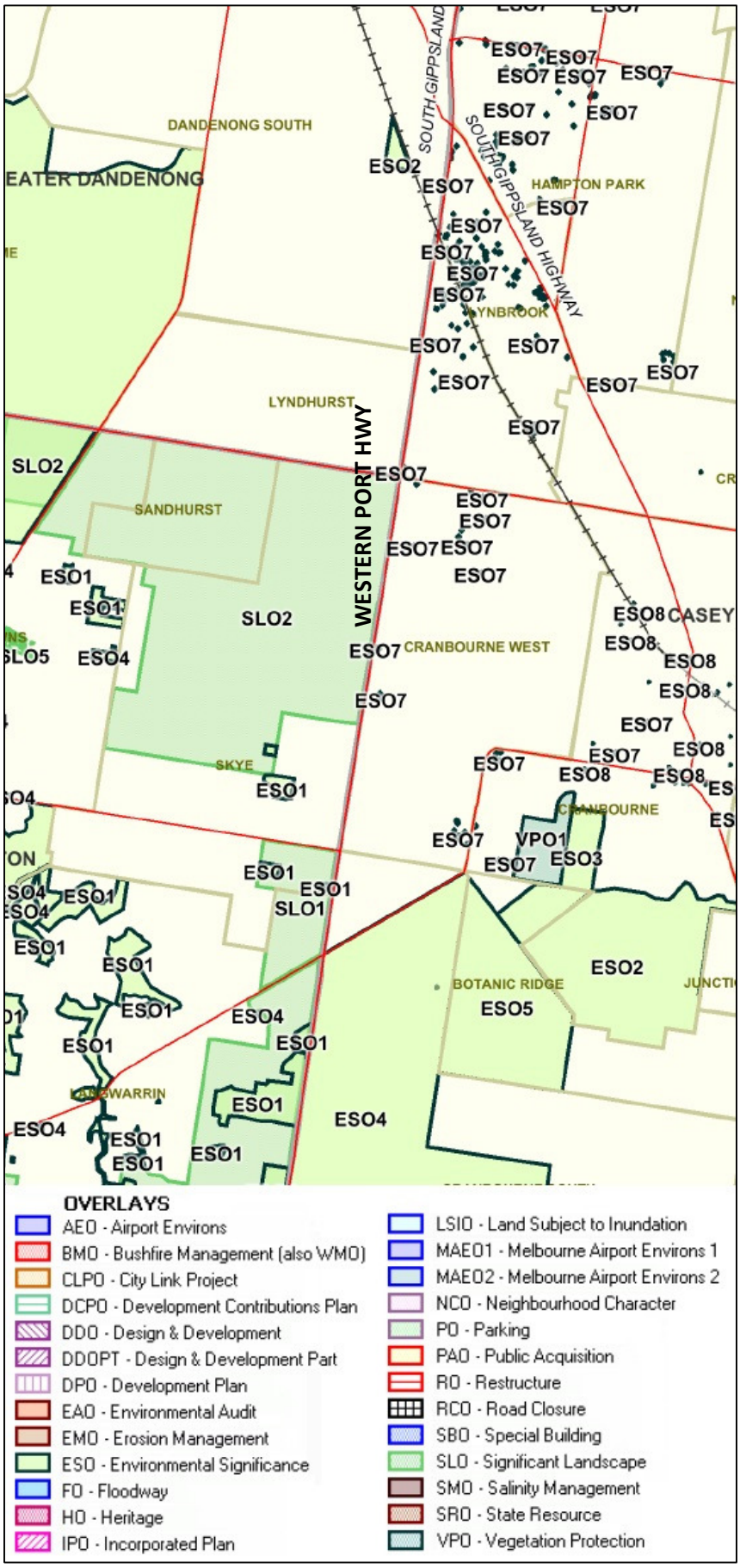


Figure 4.2 Planning scheme overlays – Environmental and landscape

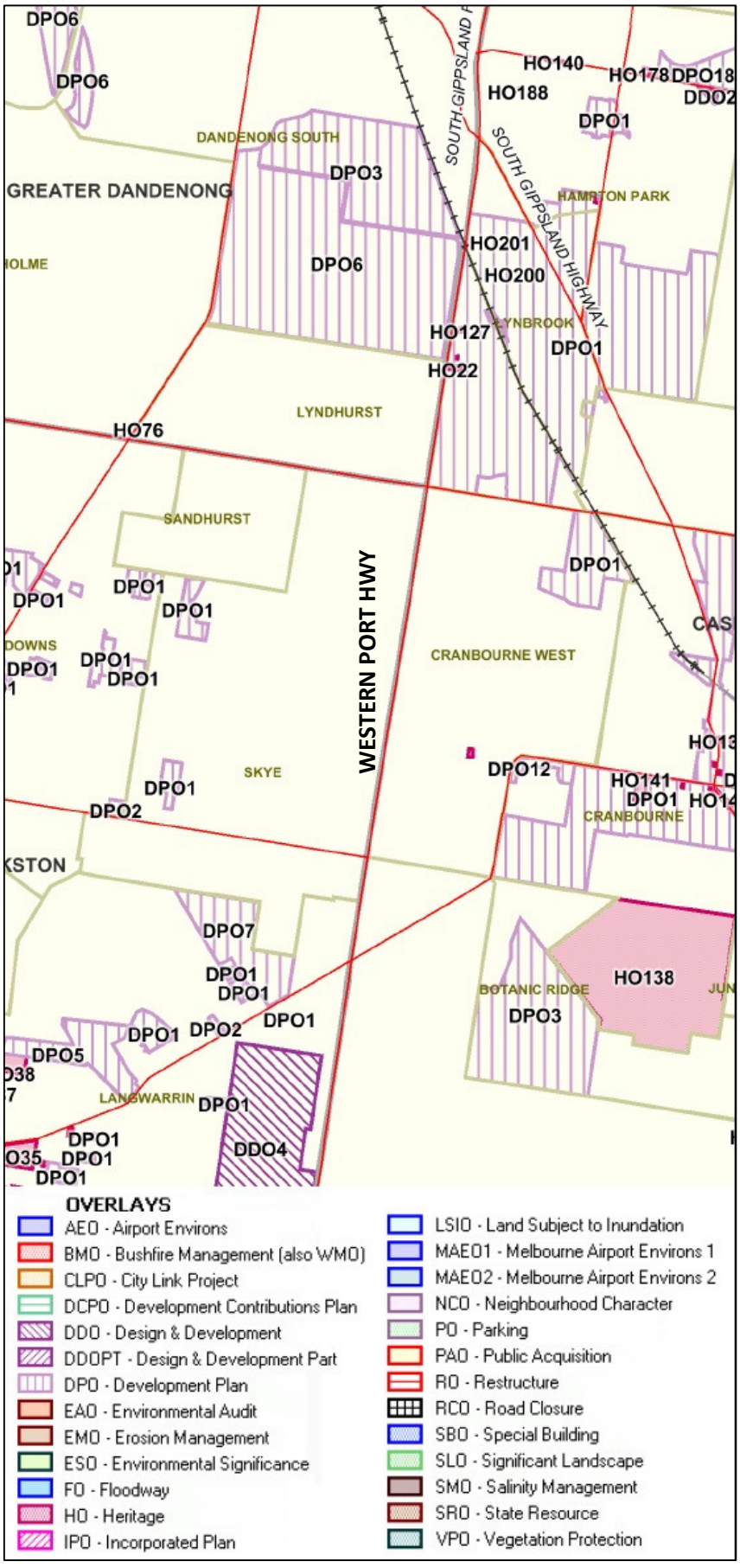


Figure 4.3 Planning scheme overlays – Heritage and built form

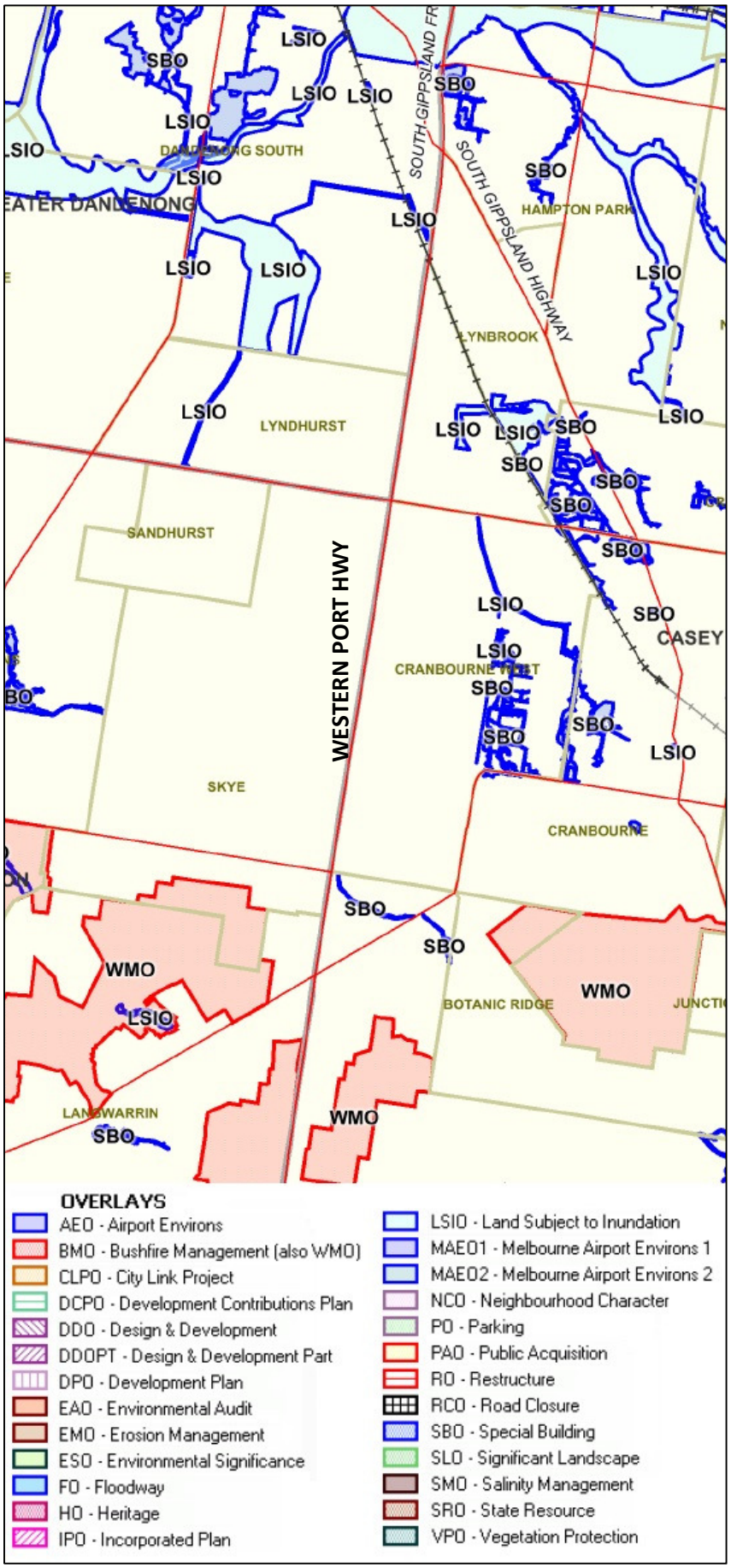


Figure 4.4 Planning scheme overlays – Land management

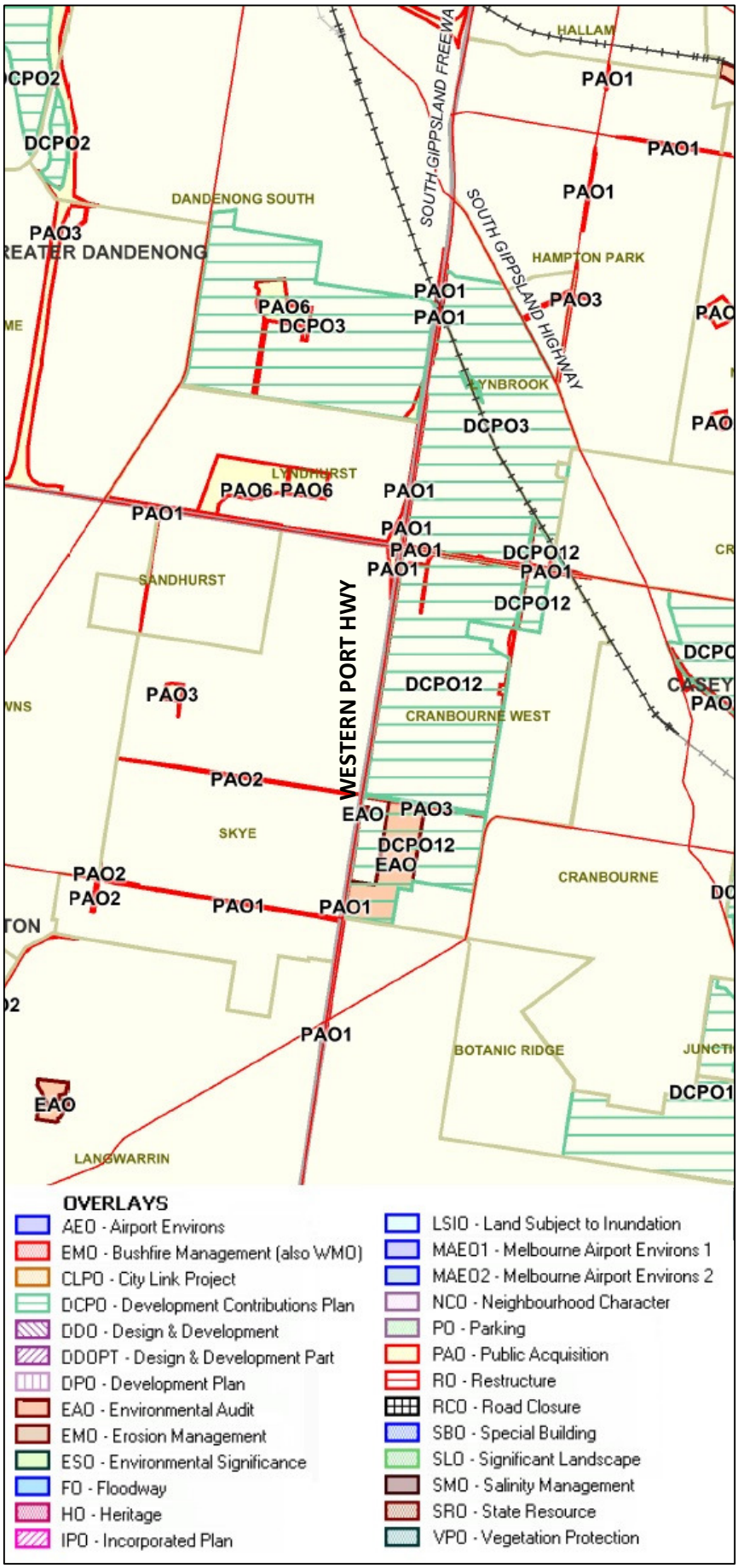


Figure 4.5 Planning scheme overlays – Other

Zones

The project area is subject to the provisions of four zones in this scheme, namely: Residential 1 Zone (R1Z), Green Wedge Zone (GWZ2), Road Zone 1 (RDZ1 and RDZ2), and the Urban Growth Zone Schedule 1 (UGZ and UGZ1).

Under the UGZ1 an approved Precinct Structure Plan for Cranbourne West (CWPSP) is incorporated into the scheme and a number of zones are applied to the area. Three zones which apply to the portion of the UGZ1 affected by the proposed road upgrade are the Business 3 Zone (B3Z), Residential 1 Zone (R1Z), and the Road Zone 2 (RDZ2). It is noted that this should also include RDZ1 for the widening along the Western Port Highway. The CWPSP also shows the investigation areas for upgrade of the intersections at Wedge, Hall and Ballarto Roads.

Under none of the applying zones does the use of land for a road require a permit.

Subdivision of land requires a planning permit under each of the applying zones however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

Under the GWZ and UGZ/UGZ1 a permit is required for "earthworks which alter the rate of flow or discharge point of water across a boundary" It is possible that roadworks fall within the definition of earthworks for the purposes of the Casey Planning Scheme and therefore a permit would be required for project works in this zone.

Overlays

The project area is subject to the operation of six overlays in the Casey Planning Scheme. They are: Environmental Significance Overlay (ESO4 and ESO7), Heritage Overlay (HO22), Development Plan Overlay – Schedule 1 (DPO1), Special Building Overlay (SBO), Public Acquisition Overlay (PAO1 and PAO3) and the Development Contributions Plan Overlay (DCPO3).

A permit is not usually required for use of land under any of the applying overlays; however under a PAO any use permitted under the zone would require a permit unless it is to be used by the authority responsible for acquiring the land and related exemptions. A permit is potentially required for use of land under the PAO3 as VicRoads is not the public land manager for this overlay.

Under the SBO roadworks will require a planning permit. Permits are not required for this project under any of the other overlays.

Subdivision of land requires a planning permit under four of the applying overlays however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

Other Provisions

Clause 52.17 (Native Vegetation) of the Casey Planning Scheme requires a permit "*to remove, destroy or lop native vegetation".*

This does not apply:

- *"If the table to Clause 52.17-7 specifically states that a permit is not required.*
- *To the removal, destruction or lopping of native vegetation specified in the schedule to this clause.*
- *To an area specified in the schedule to this clause."*

It also does not apply *"if a Native vegetation precinct plan corresponding to the land is incorporated into the scheme."*

Therefore in view of the presence of native vegetation within the project area in Casey, a planning permit for the removal of native vegetation will be required if it is not possible to avoid the vegetation through project design and management or it is not covered by a native vegetation precinct plan.

4.2 Frankston Planning Scheme

Frankston Planning Scheme applies to all land in the project area west of the centreline of the existing Western Port Highway and south of the centreline of the existing Thompsons Road. Various provisions of the Scheme apply in different ways to proposed project elements.

The effect of the local provisions of the Scheme is summarised in Table 4.2 at the end of Section 4.3.

In summary the project would not require a planning permit under the Frankston Planning Scheme for use of land for a road or for buildings and works or subdivision. A permit would be required for removal of native vegetation within the Environmental Significance Overlay (ESO1), Significant Landscape Overlay (SLO2) and under the provisions of Clause 52.17, if native vegetation is to be removed in these areas when the project is to be constructed. These permit requirements will be the subject of a later application and are not the subject of this amendment.

Reservation and Acquisition of Land

The project within Frankston requires additional land to be reserved to facilitate the construction of the freeway upgrade. Through this amendment the reservation in the form of a Public Acquisition Overlay (PAO1) is proposed to be introduced to land administered under the Frankston Planning Scheme as well as land administered under the Casey and Greater Dandenong Planning Schemes.

Zones

The project area is subject to the provisions of four zones in this scheme, namely: Green Wedge Zone (GWZ), Rural Conservation Zone (RCZ1 and RCZ2), Public Use Zone 1 (PUZ1) and the Road Zone 1 (RDZ1).

Under none of the applying zones does the use of land for a road require a permit.

Subdivision of land requires a planning permit under each of the applying zones however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

A permit is not required for buildings and works under the provisions of the applying zones.

Overlays

The project area is subject to the operation of four overlays in the Frankston Planning Scheme. They are: Environmental Significance Overlay (ESO1), Public Acquisition Overlay (PAO1 and PAO2), Bushfire Management Overlay (WMO) and the Significant Landscape Overlay (SLO2).

A permit is potentially required for use of land under the PAO2 as VicRoads is not the public land manager for this overlay. Although the amendments seek to change this PAO2 to a PAO1.

Under the ESO and SLO the project will require a planning permit for the removal of native vegetation if it is not possible to avoid the vegetation through project design and management.

Subdivision of land requires a planning permit under three of the applying overlays, however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

Other Provisions

Clause 52.17 (Native Vegetation) of the Frankston Planning Scheme requires a permit "*to remove, destroy or lop native vegetation"*

This does not apply:

- *"If the table to Clause 52.17-7 specifically states that a permit is not required.*
- *To the removal, destruction or lopping of native vegetation specified in the schedule to this clause.*
- *To an area specified in the schedule to this clause."*

It also does not apply *"if a Native vegetation precinct plan corresponding to the land is incorporated into the scheme."*

Therefore in view of the presence of native vegetation within the project area in Frankston, a planning permit for the removal of native vegetation will be required if it is not possible to avoid the vegetation through project design and management or it is not covered by a native vegetation precinct plan.

4.3 Greater Dandenong Planning Scheme

Greater Dandenong Planning Scheme applies to all land in the project area west of the centreline of the existing Western Port Highway and north of the centreline of the existing Thompsons Road. Various provisions of the Scheme apply in different ways to proposed project elements.

The effect of the local provisions of the Scheme is summarised in Table 4.3.

In summary the project requires a planning permit under the Greater Dandenong Planning Scheme for earthworks in the Green Wedge Zone (GWZ), roadworks in the Urban Floodway Zone (UFZ) and Land Subject to Inundation Overlay (LSIO), and the removal of native vegetation under the provisions of Clauses 52.16 and 52.17. These permit requirements will be the subject of a later application and are not the subject of this amendment.

Reservation and Acquisition of Land

The project within Greater Dandenong requires additional land to be reserved to facilitate the construction of the freeway upgrade. Through this amendment the reservation in the form of a Public Acquisition Overlay (PAO1) is proposed to be introduced to land administered under the Greater Dandenong Planning Scheme as well as land administered under the Casey and Frankston Planning Schemes.

Zones

The project area is subject to the provisions of six zones in this scheme, namely: Industrial 1 Zone (IN1Z), Business 3 Zone (B3Z), Green Wedge Zone (GWZ), Public Use Zone 4 (PUZ4), Road Zone 1 (RDZ1) and the Urban Floodway Zone (UFZ).

Under none of the applying zones does the use of land for a road require a permit.

A planning permit is required for roadworks under the UFZ. A permit is not required for buildings and works under the PUZ1 or RDZ1. Under the GWZ a permit is required for "earthworks which alter the rate of flow or discharge point of water across a boundary" It is possible that roadworks fall within the definition of earthworks for the purposes of the Greater Dandenong Planning Scheme and therefore a permit is required for project works in this zone.

Subdivision of land requires a planning permit under each of the applying zones however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

Overlays

The project area is subject to the operation of four overlays in the Greater Dandenong Planning Scheme. They are: Development Plan Overlay (DPO3 and DPO6), Public Acquisition Overlay (PAO1), Development Contributions Plan Overlay (DCPO3) and the Land Subject to Inundation Overlay (LSIO).

Under the LSIO roadworks will require a planning permit. Permits are not required for this project under the DPO3 DPO6 or DCPO3.

Subdivision of land requires a planning permit under two of the applying overlays however under the provisions of Cl.62.04, subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot.

Other Provisions

The *Dandenong South Native Vegetation Plan (January 2009)* applies to land in the project area west of the existing Western Port Highway and between Bayliss Road and Glasscocks Road. The plan allows for the removal of some native vegetation within the project area.

Clause 52.16 (Native Vegetation Precinct Plan) of the Greater Dandenong Planning Scheme requires a permit "*to remove, destroy or lop native vegetation"*

This does not apply:

- *"If the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan incorporated into this scheme. Any conditions or requirements specified in the plan must be met.*

- *To the removal, destruction or lopping of native vegetation specified in the table to Clause 52.16-4, unless a native vegetation precinct plan specifies otherwise."*

Clause 52.17 (Native Vegetation) of the Greater Dandenong Planning Scheme requires a permit "*to remove, destroy or lop native vegetation"*

This does not apply:

- *"If the table to Clause 52.17-7 specifically states that a permit is not required.*

- *To the removal, destruction or lopping of native vegetation specified in the schedule to this clause.*

- *To an area specified in the schedule to this clause."*

It also does not apply *"if a Native vegetation precinct plan corresponding to the land is incorporated into the scheme."*

Therefore in view of the presence of native vegetation within the project area in Greater Dandenong, a planning permit for the removal of native vegetation will be required if it is not possible to avoid the vegetation through project design and management or removal of the vegetation is not allowed by a native vegetation precinct plan.

Table 4.1 Western Port Highway (North) Upgrade - Analysis of Planning Scheme Requirements C A S E Y P L A N N I N G S C H E M E						
Planning scheme provision	**Project elements potentially affected**	**Map No**	**Permit required**			
Zones			**Use**	**Buildings and Works**	**Subdivision**	**Native Veg Removal**
32.01 Residential 1 Zone (R1Z)	• Appurtenant road works and access closures Alignment Plans 1, 2, 3	7,10	No	No	Yes (2)	No
35.04 Green Wedge Zone (GWZ2)	• The future use of the road • The future use of the railway • Project works for roadway, railway and related infrastructure Alignment Plan 7	14	No	No Earthworks (3)	Yes (2)	No
36.04 Road Zone 1 (RDZ1 and RDZ2)	• The future use of the road. • The future use of the railway • Project works for roadway, railway and related infrastructure Alignment Plans 1, 2, 3, 4, 5, 6, 7	7, 10,14	No	No	Yes (2)	No
37.07 Urban Growth Zone (UGZ and UGZ1) Note: Approval requirements vary according to whether a Precinct Structure Plan is approved – checked Cranbourne West PSP and no changes of permit status	• The future use of the road. • The future use of the railway • Project works for roadway, railway and related infrastructure Alignment Plan 4, 6,7,8,9	10, 14	No	No Earthworks (3)	Yes (2)	No
Overlays						
42.01 Environmental Significance Overlay (ESO4) (ESO7)	• Project works for roadway, railway and related infrastructure Alignment Plan 3 (ESO7) Alignment Plan 7 (ESO4)	10ESO7 14ESO4	No	Yes(1) ESO4 Limited permit for buildings/works ESO7 No – outside root zone of Red Gums	Yes (2)	Yes ESO7 - Limited to identified red gums Expires 17 May 2014 ESO4 – Native vegetation only
43.01 Heritage Overlay (HO22) Former Lyndhurst Primary School)	• Project works for roadway, railway and related infrastructure Alignment Plan 2	10HO	No	Yes Only works that interact with HO22.	Yes (2)	No
43.04 Development Plan Overlay (DPO1)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3	7DPO 10DPO	No (4)	No (4)	No (4)	No

44.05 Special Building Overlay (SBO)	• Project works for roadway, railway and related infrastructure Alignment Plan 6	14SBO	No	Yes (5) Limited location	Yes (2)	No
45.01 Public Acquisition Overlay (PAO1) (PAO3)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3,4,5,6,7	7PAO 10PAO 14PAO	Yes(6)	Yes(6)	Yes(6)	Yes(6)
			Yes – railway(7)	Yes – Hall Road and railway(7)	Yes – railway(7)	Yes – railway(7)
45.06 Development Contributions Plan Overlay (DCPO 3)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3,4,5,6	7DCPO 10DCPO 14DCPO	No (4)	No (4)	No (4)	No
Particular Provisions						
Urban Growth Boundary	• The future use of the road. • The future use of a railway • Project works for roadway and related infrastructure Alignment Plan 3,4,5,6,7	10, 14	No	No	Not relevant inside Prohibited outside – subject to Cl. 62.04	No
52.17 Native Vegetation	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3,4,5,6,7		No	No	No	Yes(8)
52.29 Land adjacent to a Road Zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3,4,5,6,7		No	Yes(9)	No	No

Key:
No – means that this action is not proposed or does not require a planning permit under the relevant provision of the planning scheme.
Yes – means that a planning permit is required for this action under the relevant provision of the planning scheme and this action is or may be proposed.
Grey shading means that a planning permit is required and no exemptions apply to this project.

1. Buildings and works for roadworks are allowed without permit under Cl. 62.02 unless specifically required by another provision. As provision is not specific to roadworks no permit is required.
2. Subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot and other exemptions. (Cl.62.04)
3. Earthworks which alter the rate of flow or discharge point of water across a boundary require a permit under schedule to GWZ1 clause 35.04 and of the UGZ clause 37.07-4
4. DPO and DCPO do not require a permit. However they require that a permit must not be issued before a plan is prepared and then buildings works or use and subdivision must comply with the plan.
5. Exemptions apply under certain circumstances – refer to Cl. 44.05-1. SBO only applies to one location at Ballarto Road.
6. Does not apply to the authority responsible for the acquisition of the land
7. If Casey is acquiring authority (minor area at Hall Road) all other authorities will require permits for use and development. If VicRoads is the acquiring authority then DTPLI or other constructing authority may require a planning permit for use and development of the railway.
8. If native vegetation is affected by project works a planning permit is required. There are certain exemptions under Clause 52.17 that should be considered.
9. Literal interpretation of this clause indicates a permit is required to create or alter an access to a Road Zone 1. VicRoads is the referral authority for these permits and so application of the clause to VicRoads actions would appear to be unintended. However there appear to be no exemptions to the application of this clause

Table 4.2 Western Port Highway (North) Upgrade - Analysis of Planning Scheme Requirements F R A N K S T O N P L A N N I N G S C H E M E						
Planning scheme provision	Project elements potentially affected	Map No	Permit required			
Zones			**Use**	**Buildings and Works**	**Subdivision**	**Native Veg Removal**
35.04 Green Wedge Zone (GWZ)	• The future use of the road • The future use of a railway • Project works for roadway railway and related infrastructure Alignment Plan 3,4,5	3,6	No	No	Yes (2)	No
35.06 Rural Conservation Zone (RCZ1), (RCZ2)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 6,7	6	No	No	Yes (2)	No
36.01 Public Use Zone Schedule 1 (PUZ1) (Service and Utility)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 7	6	No	No	Yes (2)	No
36.04 Road Zone 1 (RDZ1)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 3,4,5,6,7	3,6	No	No	Yes (2)	No
Overlays						
42.01 Environmental Significance Overlay (ESO1)	• Project works for roadway, railway and related infrastructure • Alignment Plan 7	6ESO	No	Yes (1)	Yes (2)	Yes(5)
42.03 Significant Landscape Overlay (SLO1) (SLO2)	• Project works for roadway, railway and related infrastructure Alignment Plan 3,4,5,6,7	3SLO 6SLO	No	(SLO1) No - exempt under schedule 1 (SLO2) No – exempt unless near red gums	No	(SLO1) (SLO2) Yes – unless exempt by schedules 1, 2
44.06 Bushfire Management Overlay (WMO)	• Project works for roadway, railway and related infrastructure Alignment Plan 7	6WMO	No	No	Yes (2)	No

45.01 Public Acquisition Overlay (PAO1) VicRoads (PAO2) Frankston	• Project works for roadway, railway and related infrastructure Alignment Plan 5,7	3PAO	Yes (3) Yes – railway(4)	Yes (1)(3) Yes – Hall Road and railway(4)	Yes (2)(3) Yes – railway(4)	Yes(3) Yes – railway(4)
Particular Provisions						
Urban Growth Boundary 57 Metropolitan Green Wedge	• The future use of the road. • The future use of a railway • Project works for roadway and related infrastructure Alignment Plan 3,4,5,6,7	3,6	No	No	Not relevant inside Prohibited outside – subject to Cl. 62.04	No
52.17 Native Vegetation	• Project works for roadway, railway and related infrastructure Alignment Plan 3,4,5,6,7		No	No	No	Yes (5)
52.29 Land adjacent to a Road Zone, Category 1, or a Public Acquisition Overlay for a Category 1 Road	• Project works for roadway, railway and related infrastructure Alignment Plan 3,4,5,6,7		No	Yes(6)	No	No

Key:
No – means that this action is not proposed or does not require a planning permit under the relevant provision of the planning scheme.
Yes – means that a planning permit is required for this action under the relevant provision of the planning scheme and this action is or may be proposed.
Grey shading means that a planning permit is required and no exemptions apply to this project.

1. Buildings and works for roadworks are allowed without a permit under Cl. 62.02 unless specifically required by another provision. This provision is not specific to roadworks therefore no permit is required
2. Subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot and other exemptions. (Cl.62.04)
3. Does not apply to the authority responsible for the acquisition of the land.
4. If VicRoads is the acquiring authority then DTPLI or other constructing authority may require a planning permit for use and development of railway. If Frankston is acquiring authority (minor area at Hall Road) all other authorities may require permits for use and development.
5. If native vegetation is affected by project works a planning permit is required. There are certain exemptions under the ESO and Schedule 1 and Clause 52.17 that should be considered.
6. Literal interpretation of this clause indicates a permit is required to create or alter and access to a Road Zone 1. VicRoads is the referral authority for these permits and so application of the clause to VicRoads actions would appear to be unintended. However there appear to be no exemptions to the application of this clause

Table 4.3 Western Port Highway (North) Upgrade - Analysis of Planning Scheme Requirements GREATER DANDENONG PLANNING SCHEME						
Planning scheme provision	**Project elements potentially affected**	**Map No**	**Permit required**			
Zones			**Use**	**Buildings and Works**	**Subdivision**	**Native Veg Removal**
33.01 Industrial 1 Zone (IN1Z)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 1,2	9,12	No	Yes (1) Yes Railway	Yes (2)	No
34.03 Business 3 Zone (B3Z)	• The future use of the road • Project works for roadway and related infrastructure • Alignment Plan 1	9	No	Yes (1)	Yes (2)	No
35.04 Green Wedge Zone (GWZ)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 2,3	12	No	Yes (1) Earthworks (3)	Yes (2)	No
36.01 Public Use Zone Schedule 4 (PUZ4) (Transport)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 1	9	No	No	Yes (2)	No
36.04 Road Zone 1 (RDZ1)	• The future use of the road • The future use of a railway • Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3	9,12	No	No	Yes (2)	No
37.03 Urban Floodway Zone (UFZ)	• The future use of the road • Project works for roadway and related infrastructure Alignment Plan 1	9	No	Yes	Yes (2)	No
Overlays						
43.04 Development Plan Overlay (DPO3)(DPO6)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2	9DPO 12DPO	No (4)	No (4)	No (4)	No

45.01 Public Acquisition Overlay (PAO1)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3	9PAO 12PAO	Yes (5) Yes – railway(6)	Yes (1)(5) Yes – railway(6)	Yes (2)(5) Yes – railway(6)	Yes(5) Yes – railway(6)
45.06 Development Contributions Plan Overlay (DCPO 3)	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2	9DCPO 12DCPO	No (4)	No (4)	No (4)	No
44.04 Land Subject to Inundation Overlay (LSIO)	• The future use of the road • Project works for roadway and related infrastructure Alignment Plan 1	9LSIO	No	Yes Roadworks	Yes (2)	No
Particular Provisions						
Urban Growth Boundary 57 Metropolitan Green Wedge	• The future use of the road. • The future use of a railway • Project works for roadway and related infrastructure Alignment Plan 2,3	12	No	No	Not relevant inside Prohibited outside – subject to Cl. 62.04	No
52.16 Native Vegetation Precinct Plan	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2		No	No	No	Yes(8)
52.17 Native Vegetation	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3		No	No	No	Yes (7)
52.29 Land adjacent to a Road Zone, Category 1, or a PAO for a Category 1 Road	• Project works for roadway, railway and related infrastructure Alignment Plan 1,2,3		No	Yes(9)	No	No

Key:
No – means that this action is not proposed or does not require a planning permit under the relevant provision of the planning scheme.
Yes – means that a planning permit is required for this action under the relevant provision of the planning scheme and this action is or may be proposed.
Grey shading means that a planning permit is required and no exemptions apply to this project.

1. Buildings and works for roadworks are allowed without a permit under Cl. 62.02 unless specifically required by another provision. This provision is not specific to roadworks therefore no permit is required
2. Subdivision does not require a planning permit if it is by a public authority acquiring land and it does not create an additional lot and other exemptions. (Cl.62.04)
3. Earthworks which alter the rate of flow or discharge point of water across a boundary require a permit under schedule to GWZ clause 35.04
4. DPO and DCPO do not require a permit. However they require that a permit must not be issued before a plan is prepared and then buildings works or use and subdivision must be in accordance with the plan.
5. Does not apply to the authority responsible for the acquisition of the land
6. If VicRoads is the acquiring authority then DOT or other constructing authority may require a planning permit for use and development.
7. If native vegetation is affected by project works a planning permit is required. Certain exemptions under Clause 52.17 should be considered including the presence of a Native Vegetation Precinct Plan.
8. Dandenong South Native Vegetation Precinct Plan, January 2009 applies to part of the project area. This Clause exempts native vegetation removal authorised under the Plan. Other removal or lopping requires approval.
9. Literal interpretation of this clause indicates a permit is required to create or alter and access to a Road Zone 1. VicRoads is the referral authority for these permits and so application of the clause to VicRoads actions would appear to be unintended. However there appear to be no exemptions to the application of this clause

4.4 Land ownership and encumbrances

Land required for the proposed freeway upgrade project comprises:

- Land within the existing road reservation of Western Port Highway and intersecting roads.
- Land which has been reserved in the planning schemes under an existing public acquisition overlay (PAO1, PAO2, PAO3).
- Land which adjoins but is not included in the existing road and existing PAO and which is required for the freeway upgrade and associated works.

This latter category of land is proposed to be included in the PAO1 under these amendments to the existing planning schemes. Land parcels proposed for acquisition and proposed to be covered by either or both of the existing and new PAOs in the planning schemes are summarised in Table 4.4.

Table 4.4 Land parcels affected by land acquisition

	a. Existing PAO	b. New PAO	c. Existing and New PAO	Total land parcels a + b - c
Acquired by VicRoads for WPH project only	29	68 *	20	77
Acquired by VicRoads for Thompsons Road and WPH projects	2	2	2	2
Total	31	70 *	22	79
* A PAO is proposed over one additional property (550 Hall Road, Service Station). However, the PAO is not proposed to be used if the service station remains on the property, as the project design retains the service station and provides access between Western Port Highway and the service station via the Hall Road northbound interchange ramps. The PAO may be used if a different use is on the property at the time of the project, to facilitate acquisition of the different use, as it would not be appropriate to provide access between the freeway ramps and any other use.				

A total of 79 land parcels are affected by proposed land acquisition which would be required to implement the freeway upgrade project. Of these, 70 land parcels are affected by the proposed PAO to be introduced by the amendments supported by this report and 31 parcels are affected by the existing PAO in the planning schemes. A total of 22 land parcels are affected by both the existing PAO and the new PAO.

Within land covered by the existing PAO VicRoads will be responsible for the acquisition of 29 land parcels under the freeway upgrade while 2 parcels will be acquired by VicRoads for the Thompsons Road Duplication project which has already passed through the planning scheme amendment phase. VicRoads will have responsibility for acquisition of all 70 parcels included in the new PAO.

Ten (10) of the affected land parcels are owned by Government or local government and the remainder are registered to private owners.

The additional area of PAO to be reserved for compulsory acquisition in each parcel varies from areas as small as 50m^2 up to 90,850m^2. The land parcels proposed to be included in the PAO and details of the area to be acquired are set out in the tables in Appendix D.

4.5 Other approvals and compliance

4.5.1 Freeway Project

In addition to the planning scheme amendments which are the subject of this report, a number of other statutory approvals or regulatory requirements could apply to the proposed Western Port Highway (North) Upgrade project in due course.

As VicRoads does not intend to construct the proposed freeway upgrade works at this time it acknowledges that it will need to seek various other approvals for the works at a later time. In addition to the need for planning permits discussed in Sections 4.1 to 4.3 of this report the proposed roadworks would (currently) be subject to other potential approvals and compliance requirements and their status is as follows.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC)

The project may trigger the provisions of this Commonwealth Act if it is likely to have a significant impact on a matter of national environmental significance. Investigations to this time have not identified any nationally listed species or communities and it is unlikely that the project will have a significant impact on matters of national environmental significance. However in view of the existence of an historical record of Southern Brown Bandicoot in the study area the project consultants recommend that the project be referred in due course to the Commonwealth Minister for determination of whether the project is a controlled action under the Act. This referral, if required, will be undertaken at a time closer to project implementation.

Flora and Fauna Guarantee Act 1988 (FFG)

The presence of several FFG listed protected flora in or adjacent to the existing road reservation and potentially within the proposed road reservation mean that a permit could be required under the Act for the taking of protected flora.

Environment Effects Act 1978 (EEA)

In April 2012 VicRoads referred the project to the Minister for Planning under the EEA for a decision on the need for an Environment Effects Statement (EES). On 13 November 2012 the Minister determined that an EES is not required for the project subject to the condition that:

"The proponent is to prepare a noise impact assessment report that:

i. Identifies the noise objectives proposed to be applied to the project and provides a clear justification for these;
ii. Provide predictions of noise levels at representative sensitive receptors likely to result from the project, relative to the existing noise environment;
iii. Identifies suitable measures that are proposed to mitigate significant noise effects on existing sensitive receptors;

iv. Provides an assessment of the likely residual noise effects on existing sensitive receptors following implementation of proposed noise mitigation measures."

"The report is to be prepared to the satisfaction of the Secretary of the Department of Planning and Community Development and released as part of public notification processes under relevant procedures for statutory approval."

The Minister also noted that the possible future railway line is not part of the referred project and it will need to be referred before entering the approvals phase for a determination under the Act.

VicRoads has prepared the required noise impact assessment which is submitted as Appendix J to this report.

Aboriginal Heritage Act 2006 (AHA)

The AHA provides protection for Aboriginal cultural heritage including Aboriginal places, objects and human remains. This means that Aboriginal cultural heritage is protected from harm and it is illegal to carry out an activity that can disturb cultural heritage places, objects or human remains without the appropriate authorisations under the Act, namely:

- Cultural Heritage Management Plan, or
- Cultural Heritage Permit.

Under the Act a planning permit cannot be issued for the project until a Cultural Heritage Management Plan is approved if one is required (s. 52(1) Aboriginal Heritage Act 2006).

VicRoads has completed cultural heritage investigations for the project area which have identified a range of potentially affected sites of Aboriginal cultural heritage significance. A Cultural Heritage Management Plan will be prepared for the project in accordance with the requirements of the Act.

Water Act 1989

A works on waterway permit will be required under the provisions of this Act for any part of the project which occurs within a waterway.

4.5.2 Possible Future Railway Line

The planning scheme amendments propose to reserve land for both a freeway and possible future railway line to the Port of Hastings. The impacts of the railway line will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

This assessment approach is consistent with the Minister for Planning's decision on the referral on the need for an Environment Effects Statement (EES) for the Western Port Highway (North) Upgrade. The Minister determined that an EES is not required for a project scope which clearly excluded the construction and operation of the railway line. In making his decision the Minister anticipated *"that any future development of rail in this corridor will be subject to a separate referral coupled with either the proposed Port of Hastings or Western Port Highway (South) Upgrade."*

There is no current reservation for the railway line in Western Port Highway (South) between Cranbourne-Frankston Road and the Port of Hastings. Hence the reservation of land for a railway line in Western Port Highway (North) will not in itself facilitate the construction of the railway line.

The possible future railway line will be subject to the operation of the Casey, Frankston and Greater Dandenong Planning Schemes. Planning permits may be required under these planning schemes for the possible future railway line.

Under none of the currently applying zones within the three planning schemes, including any future Road Zone 1 that may apply to the land for the possible future railway line, does the use of land for a railway require a permit. A permit is potentially required for use of land for a railway under a public acquisition overlay in which the Government agency responsible for constructing the railway line is not the public land manager for the overlay.

The possible future railway line may require a planning permit for earthworks in certain zones and any roadworks required in areas under certain overlays in the three planning schemes. Potential exists for a planning permit for subdivision for railway purposes. Planning permits may also be required for the removal of native vegetation.

Under the Greater Dandenong Planning Scheme, railway works in the Industrial Zone (IN1Z) require a planning permit.

Whilst it is possible that the Government would seek to construct the railway line at the same time as construction of some or all of the freeway upgrade, it is considered more likely that the freeway would be in place before any need for the railway line. Consequently some planning permit triggers, such as removal of native vegetation, may be addressed as part of the freeway upgrade project and not be relevant to the future railway line.

The possible future railway line would also be subject to other potential approvals and compliance requirements under relevant legislation.

5 PLANNING AND ENVIRONMENTAL ISSUES

Planning and environmental issues that arise from the proposed reservation of land for the Western Port Highway (North) Upgrade project have been derived from an examination of the proposed road improvements and their environmental and planning context, as well as a review of the applying planning scheme provisions.

As discussed in Section 4, planning permits would be required to allow the commencement of project development; however, these permits are not being sought at this time. The current action is for the reservation of land by introduction of a PAO1 into each planning scheme.

Therefore the issues discussed in this report are those which apply to consideration of the widening and upgrading of Western Port Highway as a strategic planning decision, including the question of whether there are any prudent or feasible alternatives. Issues which would arise from consideration of the impacts of the actual roadworks are matters which should be investigated and considered when final designs are available, and are submitted for approval under the planning and environmental regulatory system applying at that time.

At this stage it is acknowledged that the permit triggers for the project as set out in Sections 4.1 to 4.3 of this report are not extensive. By approving amendments to introduce a PAO1 the Minister would be endorsing the upgrade of the Highway to freeway standard, including the acquisition of the necessary land. Subject to obtaining planning permits at a later time for such matters as removal of native vegetation, VicRoads could proceed with the freeway upgrade project.

Included in this approval is the reservation of land for a future railway connection between Lyndhurst and the Port of Hastings. The railway project would be subject to a separate referral and decision potentially under the Environment Effects Act or Major Transport Projects Facilitation Act.

This report addresses as far as possible, issues which arise from the proposed freeway upgrade in order to inform the community and affected parties and to assist the Minister in the assessment of the amendments. Issues addressed in this report are derived from the planning and environmental context of the project and an analysis of the relevant planning scheme provisions including the policy framework, decision guidelines and particular provisions. The issues are:

- Urban context and future development
- Project benefits
- Traffic implications
- Land use impacts
- Social issues
- Economic effects
- Ecological issues including native vegetation
- Landscape considerations and the visual environment
- Cultural heritage
- Traffic noise
- Air quality
- Stormwater management and drainage
- Geotechnical and groundwater issues
- Construction issues

5.1 Urban context and future development

Western Port Highway links the South Gippsland Freeway at Dandenong South with Frankston Flinders Road at Hastings, a distance of approximately 27km.

Under the metropolitan planning regime as discussed in Section 3.1, the Casey Cardinia growth area has for many years comprised one of the principal urban corridors for Melbourne. Comprising the major urban corridor through Berwick – Pakenham and the broader urban areas of Cranbourne, Clyde and Clyde North it has more recently been expanded and renamed the South East Growth Corridor under the strategic and structure planning by State and local government.

The Western Port Highway abuts the eastern edge of the south-eastern metropolitan green wedge, which separates the existing south-east Bayside urban area and adjacent Carrum Downs/Skye and Frankston/Langwarrin urban areas from the South Eastern Growth Corridor. In doing so it forms the western boundary of the Lyndhurst and Cranbourne West urban areas from the Cranbourne Railway Line in the north to Cranbourne-Frankston Road in the south. The road is the defined Urban Growth Boundary (UGB) over this segment. Undeveloped or semi-rural Green Wedge land abuts the western side of the Highway over this northern segment of the road.

South of Cranbourne-Frankston Road the southern segment of the Highway traverses the rural areas between Cranbourne West and the town and port of Hastings, passing adjacent to the Langwarrin urban area en-route.

Western Port Highway is a declared primary arterial road which links the major south-eastern road transport arteries of South Gippsland Freeway, Princes Highway and South Gippsland Highway with a series of major east-west primary and secondary arterial roads serving the south-eastern metropolitan areas, including Thompsons Road, Cranbourne-Frankston Road, Baxter-Tooradin Road and Frankston-Flinders Road.

With its major north-south connectivity the Highway plays a significant role in the accessibility of the broader metropolitan area. It provides key linkage with major employment areas including Dandenong South, Lynbrook and Cranbourne West and other transport and logistics facilities including the Port of Hastings and existing and future regional intermodal facilities. By interconnection it also facilitates accessibility to principal activity centres including Dandenong, Frankston, Cranbourne and Fountain Gate and an array of lesser activity centres in the region. As a consequence the Highway is an important component of Melbourne's principal freight network as well as its broader general traffic role.

In the long term, as facilities such as the Port of Hastings develop, the Highway will occupy an enhanced principal accessibility function in the State and National freight effort.

Conclusions – Urban context and future development

Western Port Highway is a principal metropolitan arterial road traversing the south eastern metropolitan green wedge and the South East Growth Corridor.

It fulfils a primary transport function including a key role in Melbourne's principal freight network and will provide essential regional accessibility between primary land use functions and major transport and freight hubs including the Port of Hastings in the long term.

5.2 Project benefits

The upgrade of the Highway to freeway standard and related intersection and access improvements will ultimately deliver a range of traffic and transport benefits with consequential economic, social and environmental benefits. These include:

- Reduced travel time and improved traffic efficiency
- Improved access for private and commercial activities
- Improved public transport access with allowance for future bus services
- Improved modal choice including provision for walking and cycling
- Improved efficiency of freight movements
- Improved road safety
- Support for urban growth strategies and regional growth
- Improved connections between employment, activity centres and residential areas
- Improved access to the Port of Hastings in conjunction with other long-term projects

The project is expected to have a net community benefit. Whilst the project will have some localised negative impacts, the social and economic benefits to the broader community will be significant and outweigh the negative impacts.

Transport efficiency benefits

The project will provide significant benefit to traffic flow along Western Port Highway and its arterial cross roads by removing the congested conditions on these roads in peak times. The conversion to freeway standard will provide free-flow conditions along the Western Port Highway, with associated efficiency and safety benefits due to the removal of traffic signals and roundabouts and the limitation of interaction with cross-road traffic to high speed entry ramps.

The additional road capacity provided along Western Port Highway will attract traffic from parallel roads, including East Link, Dandenong-Frankston Road, Evans Road, South Gippsland Highway and the northern part of McCormicks Road. The reduced volumes along these roads will improve traffic operation and provide amenity benefits to abutting land uses.

The project includes provisions for all transport modes, including buses, cyclists and pedestrians. The improved provisions may encourage greater use of sustainable transport modes.

Social benefits

The Social Impact Assessment (AECOM, June 2014) for the project in Appendix E, found that *"a net community benefit is likely for the Victorian community as the WPH upgrade will be a catalyst for economic growth and employment"*.

The report found that *"the WPH upgrade is also likely to result in a net community benefit for the greater metropolitan south-east region through improved accessibility to employment nodes, activity centres and community infrastructure. It is likely to improve:*

- *The connectivity of friends and family who are dispersed throughout the greater south-east region;*

- *Traffic safety as a result of reduced conflicts at roundabouts and between trucks, tourism traffic and local traffic;*

- *Travel times to all of these destinations.*"

The social benefits and impacts are discussed further in Section 5.5.

Economic benefits

The project is expected to have significant positive economic benefits, particularly for the overall road transport function in this sector of the metropolitan area. It will provide a more efficient road transport network and reduce the time and cost of travel for commuter and freight vehicles.

The project will support urban growth and regional development by providing high standard access to major industrial and employment uses, including uses in Dandenong South, Cranbourne West and the Port of Hastings. The development of these uses will generate economic benefits at a local and regional level.

An economic assessment of the project by Parsons Brinckerhoff (July 2014), as shown in Appendix F, indicates that the project is estimated to have a benefit cost ratio of at least 4. This relatively high benefit cost ratio is due to significant forecast savings in travel time and vehicle operating costs and the expected reduction in road crashes.

The economic benefits and impacts are discussed further in Section 5.6.

Conclusions – Project benefits

The upgrade of the Highway to freeway standard and related intersection and access improvements will ultimately deliver a range of traffic and transport benefits with consequential economic, social and environmental benefits.

The project is expected to provide a net community benefit to the Victorian community, particularly the metropolitan south-east region where it will provide improved accessibility to employment nodes, activity centres and community infrastructure and a catalyst for economic growth and employment.

The project is estimated to have a benefit cost ratio of at least 4 due to the significant forecast savings in travel time and vehicle operating costs, and the expected reduction in road crashes.

5.3 Traffic implications

The contents of this section are summarised from the report "Transport Infrastructure Assessment", VicRoads (July 2014) which is included in Appendix B and "Ballarto Road Interchange Options Assessment", AECOM (August 2014) in Appendix L.

Planning for the future development of the south-eastern growth corridor of Melbourne requires that arterial road capacity be matched to forecast future traffic levels. The Port of Hastings is the Government's preferred location as the future second container port for Victoria and the Western Port Highway is the primary road and rail access route to the expanded port. The upgrade of Western Port Highway (WPH) to freeway standards with associated intersection improvements has been designed to accommodate these key strategic future needs.

The *Transport Infrastructure Assessment (VicRoads, July 2014)* analysed the predicted future traffic demand of Western Port Highway and the surrounding arterial road network to determine the need for and extent of improvements. It included various traffic modelling exercises undertaken during 2010 to 2012 to determine future traffic volumes along Western Port Highway and its cross roads and the road and interchange forms required to accommodate such volumes. Key aspects of this report are summarised below.

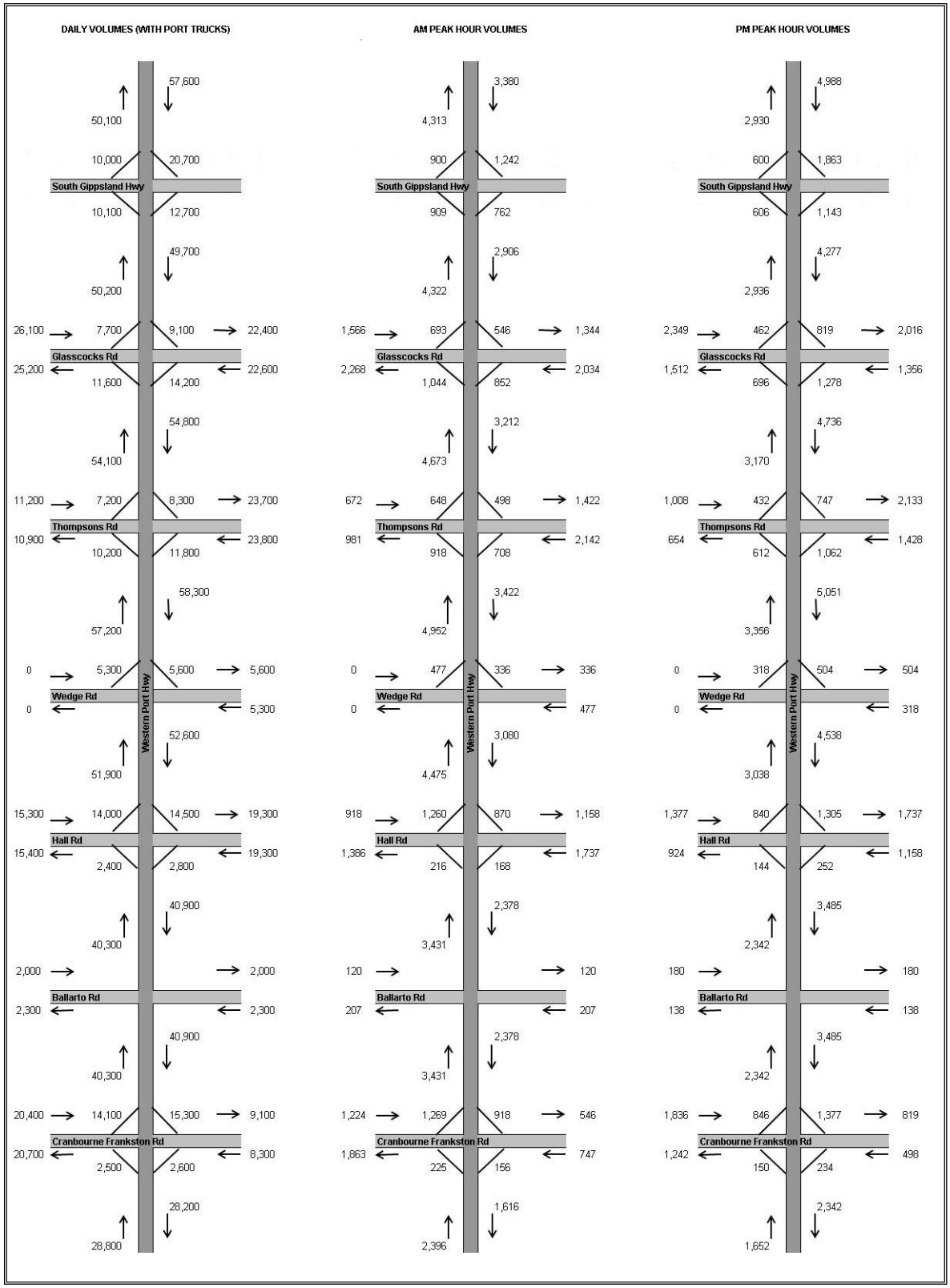
The *Ballarto Road Interchange Options Assessment (AECOM, August 2014)* was recently prepared in response to objections from Frankston City Council in relation to VicRoads' proposal for Ballarto Road. The report was prepared for the purposes of consulting with property owners and occupiers that may be affected by Frankston City Council's alternative proposal for Ballarto Road, and thereby enabling these parties to make their own submissions about the planning scheme amendments in this regard. The report included network modelling for the project as summarised below. The report also included various other assessments which are discussed in Section 7.

Initial Traffic Network Modelling - 2010

Ashton Traffic Services (ATS) undertook network modelling in 2010 to determine weekday traffic volumes in 2035 and beyond. The network modelling provided the basis for the initial development of the project, with further modelling undertaken as discussed below to confirm project proposals.

The forecast weekday volumes for a possible ultimate trade scenario at the Port of Hastings are shown in Figure 5.1 and highlight that WPH is expected to carry 80,000 to 115,000 veh/day (vehicles per day) between Cranbourne-Frankston Road and South Gippsland Freeway and less than 60,000 veh/day south of Cranbourne-Frankston Road.

The daily volumes shown in Figure 5.1 include 8,000 port trucks/day (two way) along WPH, assuming 20% of containers by rail, 60% of Port trucks along WPH and 40% of Port trucks along Peninsula Link and other roads. The assumptions in relation to the port's traffic generation were preliminary only, as limited information was available at the time of the modelling.



Notes:
1. Volumes shown in vehicles/day or vehicles/hour
2. Volumes assume ultimate development at the Port of Hastings in 2035, which may be overly optimistic

Figure 5.1 2035 Volumes (Ultimate Port) – Ashton Traffic Services

The peak hour volumes shown in Figure 5.1 are based on volumes in the peak and counter peak directions being 9% and 6% respectively of the daily volumes.

Initial Traffic Analyses - 2010

VicRoads had consultants AECOM undertake capacity and level of service analyses in 2010 to determine the road and interchange forms required to accommodate the traffic volumes determined in the ATS work.

A design level of service of D, corresponding to traffic operation close to the limit of stable flow and severely restricted, has been adopted to determine the number of traffic lanes required on WPH and its cross roads.

The investigation concluded that the following road and interchange forms are required:

- Freeway conditions along WPH between South Gippsland Freeway and Cranbourne-Frankston Road, with three lanes in each direction to accommodate midblock demands plus one auxiliary lane in each direction at critical locations to accommodate ramp merge/diverge demands.

- Three lanes in each direction on Glasscocks Road, Hall Road and Cranbourne-Frankston Road.

- Two lanes in each direction on Wedge Road and Ballarto Road (at WPH).

- Single point interchanges at Glasscocks Road, Hall Road and Cranbourne-Frankston Road and a northerly half diamond at Wedge Road.

The consultant's investigation highlighted the following:

- Failure to upgrade WPH to freeway conditions results in undesirably high volumes on secondary arterial roads such as Evans Road.

- Southerly ramps are not justified at Wedge Road, considering the very low traffic volumes forecast by ATS.

- Provision of an overpass at Ballarto Road does not significantly affect traffic volumes and operation at adjacent interchanges, compared to the option of providing a northerly half diamond interchange at Ballarto Road.

The investigation also included SIDRA analyses to determine the number of turn lanes required at each interchange.

Supplementary Modelling and Analyses – 2011 and 2012

VicRoads undertook additional network modelling and traffic analyses in 2011 and 2012 to confirm the road and interchange forms required along WPH to accommodate future traffic volumes. The network modelling was based on the Melbourne Integrated Transport Model (MITM), which was the best available model at the time.

2046 Forecast Year

VicRoads' network model provided two hour volumes in the AM peak period for 2046. AM peak hour volumes and weekday volumes were assumed to be 0.5 and 7.0 times the AM two hour volumes obtained from the model.

The model was based on assumptions at the time in relation to full development of the land within the urban growth boundary and ultimate development of the Port of Hastings. The 2046 timeframe adopted by VicRoads for ultimate development of the Port Hastings was more realistic than the 2035 timeframe adopted by ATS, however, it is still likely to be optimistic.

The forecast weekday volumes for 2046 are shown in Figure 5.2 and highlight that WPH is expected to carry 105,000 to 120,000 veh/day between South Gippsland Freeway and Hall Road, around 95,000 veh/day between Hall Road and Cranbourne-Frankston Road and less than 70,000 veh/day south of Cranbourne-Frankston Road.

The ATS' and VicRoads' models are based on different inputs and assumptions and cannot be readily compared. Despite the differences between the model outputs there is reasonable correlation between the forecast volumes for WPH in each model. Higher volumes are forecast at the southern end of WPH in VicRoads' model, as VicRoads assumed a freeway south of Cranbourne-Frankston Road and ATS assumed an arterial road. The models also assumed different road networks along Wedge Road and Ballarto Road.

There are some differences in the forecast volumes on the interchange ramps in each model. Both models show that the northerly ramps at Hall Road and northerly ramps at Cranbourne-Frankston Road carry the highest volumes.

Level of service analyses for freeway midblock sections and interchange ramps indicated the following:

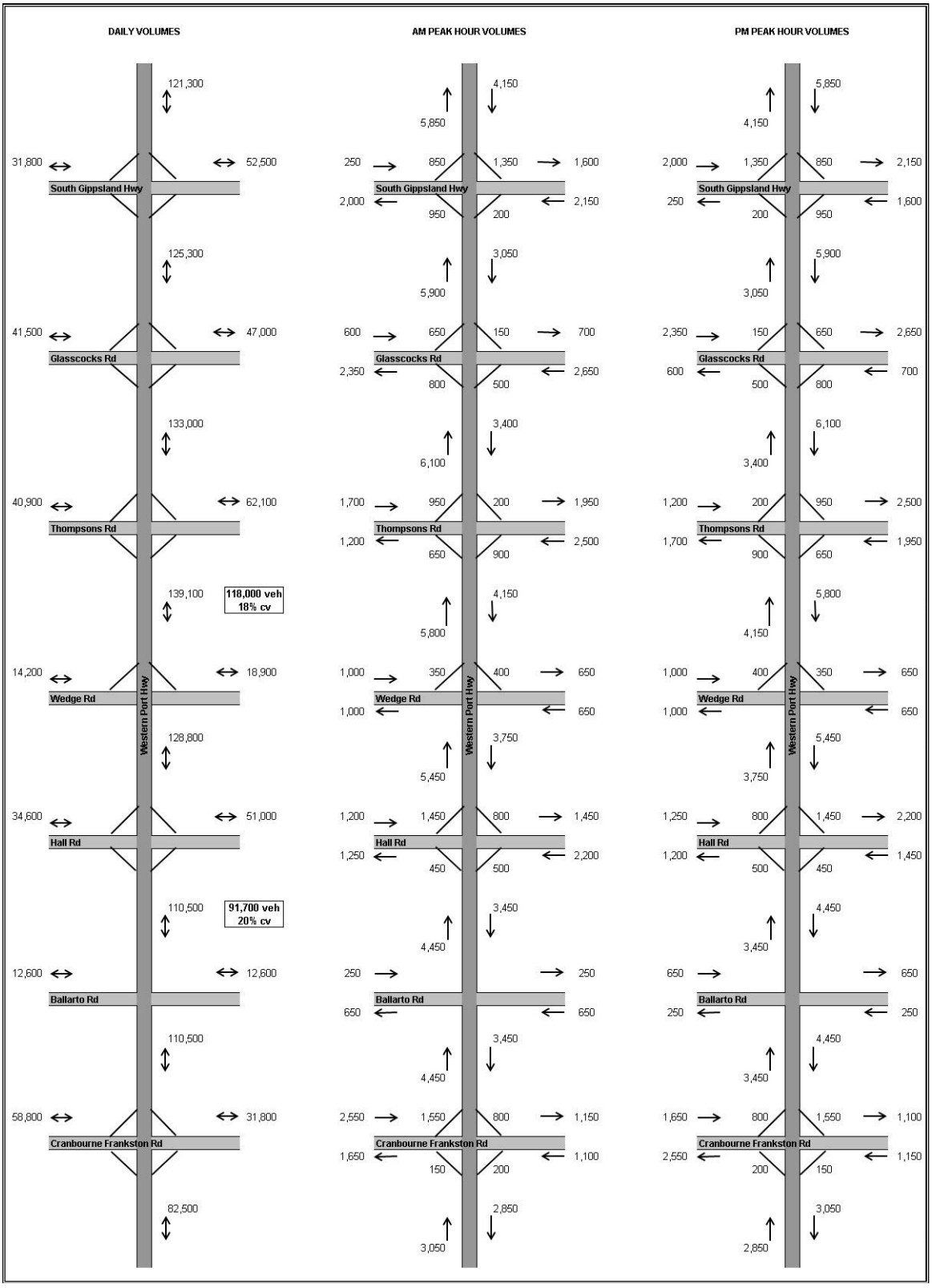
- Four freeway lanes are generally required in each direction along WPH between South Gippsland Highway and Cranbourne-Frankston Road to provide adequate through capacity and ramp merge/diverge capacity, particularly due to high ramp volumes and/or close interchange spacing.

- Three lanes are required in each direction on WPH south of Cranbourne-Frankston Road to provide adequate capacity under freeway or arterial road conditions.

It is estimated that the above quoted volumes on WPH would be reduced by around 10,000 veh/day if the development of the Port of Hastings did not proceed. Whilst the volume reduction would provide some improvement in traffic operation, the volumes along WPH would still be very high and warrant the provision of a freeway.

2031 Forecast Year

Network modelling has also been undertaken for 2031, to determine volumes at the possible time of completion of the WPH upgrade and the Stage 1 development of the Port of Hastings. The 2031 timeframe is generally consistent with current development proposals for the port.



NB. Volumes shown in passenger car units/day or hour (unless otherwise shown), which are 5% to 20% greater than the same demand expressed in vehicles/day or hour (percentage amount varies for each road)

Figure 5.2 2046 Volumes (Ultimate Port) – VicRoads

The modelling shows that the existing road network cannot accommodate north-south demands in 2031 and that WPH and several parallel north-south arterial roads experience volume/capacity ratios in excess of 1.0 and in some cases in excess of 1.2. The upgrade of WPH to a freeway better accommodates north-south demands and relieves parallel roads.

As shown in Figure 5.3, the WPH project attracts an additional 25,000 to 45,000 veh/day to the WPH compared to the "without project" option. An upgraded WPH attracts approximately 70,000 to 95,000 veh/day in 2031.

Comparison of traffic volumes across the network indicates that the project is expected to have the following impacts on other roads:

- Reduce volumes on parallel arterial roads, including East Link, Dandenong-Frankston Road, Evans Road, South Gippsland Highway and the northern part of McCormicks Road.
- Increase volumes on some arterial roads that cross and interchange with WPH (NB. Interchange design has allowed for the upgrade of these roads as necessary to accommodate future volumes).
- No increase in volume on undeclared roads parallel to WPH affected by the closure of access between WPH and Ballarto Road, including McCormicks Road, McClelland Drive and Potts Road.
- Negligible increase in volume on arterial roads near the Frankston Activity Centre.

Recent Modelling – 2014

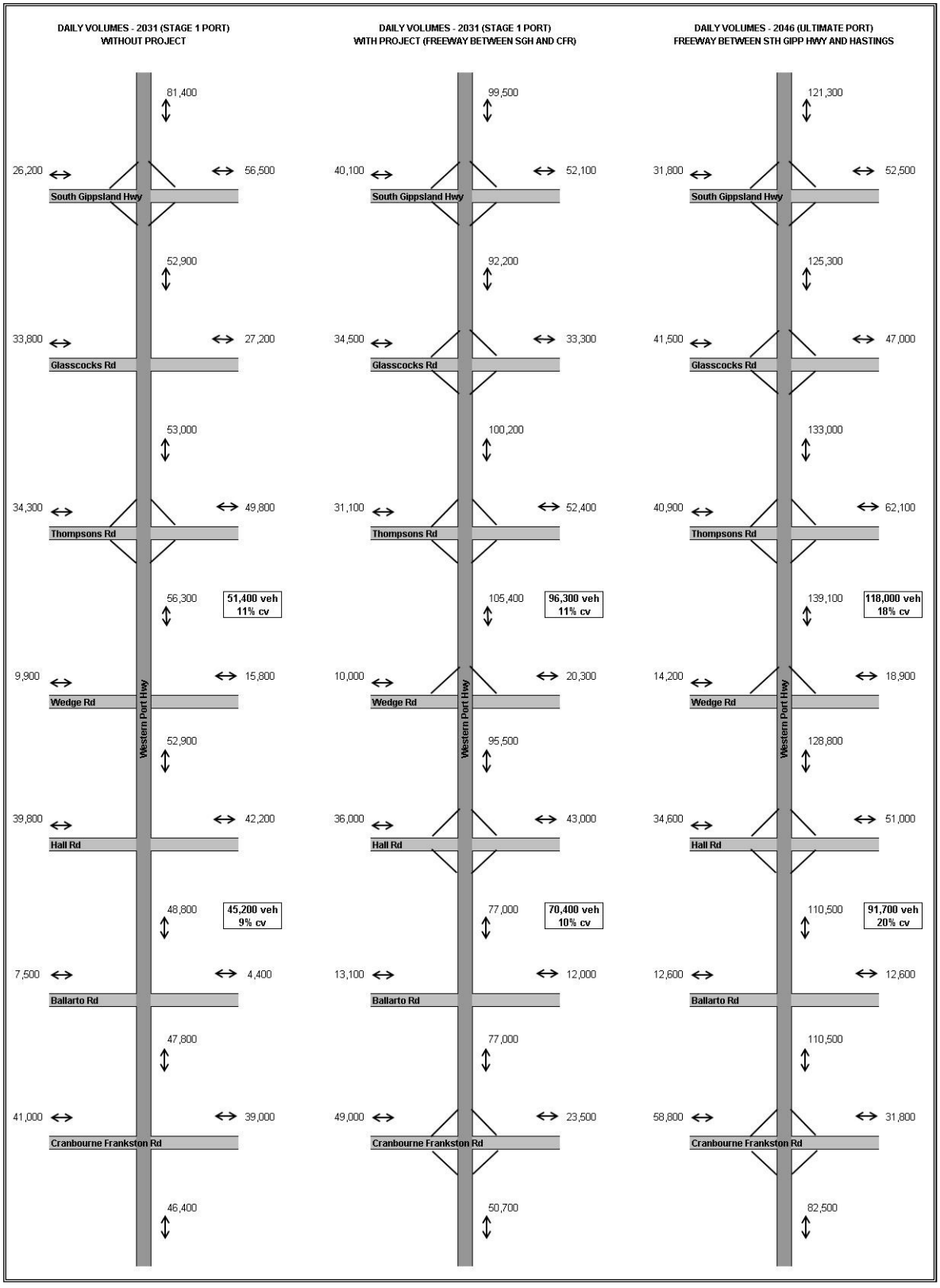
VicRoads had consultants AECOM undertake network modelling in mid 2014 using the Victorian Integrated Transport Model (VITM), which is currently the best available model for the strategic assessment of major road projects.

VITM undertakes assignments for AM peak, inter-peak, PM peak and off peak time periods, and derives average weekday traffic volumes by applying appropriate weights to the four time periods.

The modelling considered various "with project" and "without project" options in 2031 and 2046. Consideration was also given to scenarios without any expansion at the Port of Hastings and with the possible ultimate expansion of the port to accommodate 9M TEU of container trade beyond 2046.

The key findings of the modelling are as follows:

- Comparison with VicRoads' previous modelling in 2011 and 2012 indicates some differences between the results. Generally these differences are small, with VicRoads' modelling showing slightly higher weekday and AM peak period traffic volumes along WPH (North) in some scenarios.
- The existing WPH and parallel Frankston-Dandenong Road and Evans Road are expected to reach capacity and experience significant peak period congestion in the future due to traffic volume increases, indicating a need for the WPH (North) project to accommodate future traffic demands.



NB. Volumes shown in passenger car units/day (unless otherwise shown). which are 5% to 20% greater than the same demand expressed in vehicles/day or hour (percentage amount varies for each road)

Figure 5.3 2031 vs 2046 Volumes – VicRoads

- In 2031 the upgraded WPH is forecast to carry 85,000 to 95,000 veh/day between South Gippsland Highway and Hall Road and around 50,000 veh/day between Hall Road and Cranbourne-Frankston Road, assuming the Port of Hastings expansion proceeds.

- In 2046 the upgraded WPH is forecast to carry 85,000 to 100,000 veh/day between South Gippsland Highway and Hall Road and around 60,000 veh/day between Hall Road and Cranbourne-Frankston Road, assuming further expansion of the Port of Hastings. Traffic volume growth in the northern part of this section of WPH is somewhat constrained by available capacity.

- In 2046 the upgraded WPH is forecast to carry 75,000 to 85,000 veh/day between South Gippsland Highway and Hall Road and nearly 50,000 veh/day between Hall Road and Cranbourne-Frankston Road if the port expansion does not proceed. The project is required irrespective of any development at the Port of Hastings.

The results of the modelling of options for WPH and Ballarto Road are discussed in Section 7.

Conclusions – Traffic implications

Traffic modelling and capacity analyses indicates the long-term need for a freeway along Western Port Highway, with three through lanes in each direction to accommodate future traffic demands and an auxiliary lane in each direction between critical interchanges to provide adequate ramps merge/diverge capacity. Such a freeway is expected to carry up to 100,000 veh/day in 2046 based on the most recent network modelling.

The project is expected to reduce traffic volumes and congestion on parallel routes, including East Link, Dandenong-Frankston Road, Evans Road, South Gippsland Highway and the northern part of McCormicks Road.

5.4 Land use impacts

The land use implications of the proposed freeway upgrade, with allowance for a possible future railway line, are examined in this section in two parts. Firstly the overall land use and development context for the project is presented to define the current activity profile on adjoining land. This provides the setting for the detailed analysis of the land use and development impacts of the proposed road upgrade which follows.

5.4.1 Land Use Context

This section describes the land use adjacent to Western Port Highway (WPH) and its main intersecting roads and highlights broad land use context affected by the proposed WPH upgrade. The analysis is by segment of road as follows:

- South Gippsland Highway to Cranbourne Railway Line
- Cranbourne Railway Line to Thompsons Road
- Thompsons Road to Hall Road
- Hall Road to Cranbourne Frankston Road and
- Cranbourne Frankston Road to Browns Road/McKays Road

Land use is described as the principal activity currently occurring on the land, however it is noted that within the study area there are several instances where there are multiple land uses on the one property. For example, business activities may also contain a residential component while most of the land is devoted to farming or rural use. To avoid duplication these have been classified in accordance with the underlying land use zone.

South Gippsland Highway to Cranbourne Railway Line

WPH is the municipal boundary between the City of Greater Dandenong (west) and City of Casey (east) in this segment.

West side
The M1 Business Park occupies all land on the west side in this segment. Not all sites are currently developed. At the railway there is substantial vacant or under used land within the Lyndhurst rail yards.

East Side
A business park occupies the northern two thirds of the land abutting this side of WPH and the residential area of Lynbrook the southern portion to the railway line. An independent service station occupies the site on the corner of Northey Road.

Comment
Developed employment and residential areas surround the Highway in this segment and they obtain access via local roads which will be closed when the upgrade occurs. The service station access closure is a significant land use issue.

Cranbourne Railway Line to Thompsons Road

WPH is the municipal boundary between the City of Greater Dandenong (west) and City of Casey (east) in this segment.

West side
Lyndhurst rail freight yards, a commercial and public waste recycling centre, farms and dwellings occupy land in this segment. The farms in the area between the railway and Glasscocks Road have been rezoned for industrial purposes. A major freight handling facility (inland port) and Bunnings distribution centre are currently under construction. A boarding kennel/cattery abuts the Highway south of Glasscocks Road and horse agistment and farrier activities are located on Thompsons Road.

East side
From north to south in this segment the main land uses are a vacant parcel, a Shell service station and the Lyndhurst residential estate which occupies most of the segment. Access to the residential area has been improved by extending Glasscocks Road from WPH to Aylmer Road and Mellington Drive.

On the northern side of Thompsons Road between the WPH and Evans Road land use comprises the residential estate and a proposed neighbourhood activity centre on the northern side of Thompsons Road near Missens Road which is under development.

Comment
The area is a fast developing urban land use segment. Industrial uses will occupy part of the west and the residential areas on the east are almost fully developed. Direct functional relationships between the activities on either side of WPH are likely to be low.

Access is a key issue for the residential areas on the eastern side of WPH because accesses at Moreton Bay Boulevard and Carbine Way will be closed after upgrading. An alternative road network has been constructed for the residential estates, which orients internal access to Glasscocks Road and Thompsons Road.

Thompsons Road to Hall Road

WPH is the municipal boundary between the City of Frankston (west) and City of Casey (east) in this segment.

West side
Existing rural use predominates on the west side of the Highway with a number of substantial non rural uses. Two major commercial nurseries and dog training centre are significant uses fronting the road in this area. Several rural residential properties also occupy sites abutting the Highway.

East Side
The entire frontage to the east side of WPH in this segment is nominated for industrial use under the Cranbourne West Structure Plan (CWPSP). Presently the land is mainly in its undeveloped rural state. A major service station occupies the south east corner at Thompsons Road. An array of rural residential sites occupy frontage immediately south of Thompsons Road and a large commercial nursery occupies a parcel midblock.

Comment
Rural land uses predominate on either side of the WPH at this time. The development of the eastern side for industry will provide a contrasting activity for the foreseeable future because the west is designated as Green Wedge and is outside the Urban Growth Boundary (UGB). Land use interaction between east and west is unlikely to be significant.

The structure plan (CWPSP) supports access to the future industrial park at Cranbourne West via Thompsons, Wedge and Hall Roads only and not directly from the WPH. All current land uses will have existing access points removed during upgrade and alternative access will be provided as part of development.

Hall Road to Cranbourne Frankston Road

WPH is the municipal boundary between the City of Frankston (west) and City of Casey (east) in this segment.

West side
The entire west side is outside the UGB and zoned for either Green Wedge or Rural Conservation purposes. Land use in this area is mixed low density or rural residential and other uses. A major service station, retail plant centre and horse agistment centre are among the more intensive uses as well as an array of activities on rural residential blocks. The Langwarrin Bushland Reserve is situated adjacent to the Highway.

East Side
The east side between Hall Road and Ballarto Road is designated for urban residential use in the CWPSP and is zoned for urban growth within the UGB. Historic rural uses occupy the east side in this segment of the Highway with a number of isolated non-rural or more intensive activities fronting the road. These include an independent service station immediately south of Hall Road and a major turf farm. Development of the first residential estate (Ambrosia) in this area has also commenced midway between Hall Road and Ballarto Road.

The east side between Ballarto Road and Cranbourne-Frankston Road is zoned for urban growth and within the UGB. Historic rural uses, including the Brompton Lodge poultry farm, currently occupy the area. A structure plan is currently being prepared for the development of residential uses in this area.

Comment
The land uses on either side of the WPH are currently farming and rural living interspersed with commercial activities and an emerging residential development on the east. The redevelopment of the land on the eastern side will mean that alternative access provision is achievable to accommodate the removal of direct access by the freeway upgrade. The numerous small rural residential lots and other properties on the west will require alternative service road access to be provided.

In the long term there is potential for the existing land use relationships between both sides of the WPH to continue. These connections will be supported by good access along Hall Road, Ballarto Road and Cranbourne-Frankston Road.

Cranbourne Frankston Road to Browns Road/McKays Road

WPH is the municipal boundary between the City of Frankston (west) and City of Casey (east) in this segment.

West side
Future land use on the west is proposed to comprise activities compatible with the low density nature and conservation value of the Rural Conservation zoning. Land is already subdivided into semi-rural or lifestyle lots at a higher density than land to the east and predominantly occupied by dwellings. The land parcels are of a size that allows semi-rural commercial activities, such as nurseries and animal agistment, and a number of these are situated in the area.

Frequent access is required to the Highway due to the density of the development. Remnant native vegetation cover and more elevated topography lends a higher degree of amenity toward the southern end of this area, in even greater measure than land to the east of the Highway.

A group of rural residential properties fronting mainly the south side of Cranbourne-Frankston Road will be impacted by the project due to changed access arrangements. Some of these properties support associated businesses.

East side
Future land use on the east side of the Highway in this segment is proposed to comprise activities compatible with the low density nature of the Green Wedge zoning. Presently land is subdivided into semi-rural or lifestyle lots and occupied by dwellings. The land parcels are of a size that allows semi-rural commercial activities such as nurseries and animal agistment and a number of these are situated in the area. Frequent access is required to the Highway due to the density of the development. Scattered native vegetation cover and more elevated topography lends a degree of amenity at the southern end of this area toward Browns Road.

A group of rural residential properties some of which support associated businesses fronting Cranbourne-Frankston Road will be impacted by the project due to changed access arrangements.

Comment
Potential impacts on rural residential land use in this segment are numerous due to the higher lot and dwelling density than elsewhere in the project area. Some commercial activities on these rural residential lots would also be impacted. While project design has attempted to minimise land use impacts the residual potential impacts are significant. Access restoration is the primary land use mitigation requirement in this segment, while decisions as to whether to acquire all or part of a property are also relevant to amelioration of the land use effects.

5.4.2 Land use impacts

Existing and future land use

Land use impacts resulting from the acquisition of land for the proposed freeway upgrade (including allowance for a possible future railway line), the restriction or removal of road access and the eventual project construction are discussed in this section. Firstly the existing and proposed land uses within the project study area are set out by land use category. The land use categories adopted for this analysis are:

- Business and industrial (including service assets and reserves).
- Rural residential living.
- Rural including farming and agistment.
- Community, open space and conservation.

- Residential (urban).
- Proposed future use.

Existing land uses are shown in Figure 5.4 and the proposed future land uses in Figure 5.5. A full land use description is included for each land parcel in the tables at Appendix D.

Proposed future land use is identified by suitable zoning for urban purposes and known development proposals. Such proposals are either approved and under existing or imminent development, or have been identified as intended development by the land owner or property developer.

Land use impacts

This section identifies where and what types of impacts are likely to occur as a result of the proposed upgrade of the WPH. The land use impact assessment is based on the footprint for the WPH alignment described in Section 2 and the existing and proposed land uses that are described above.

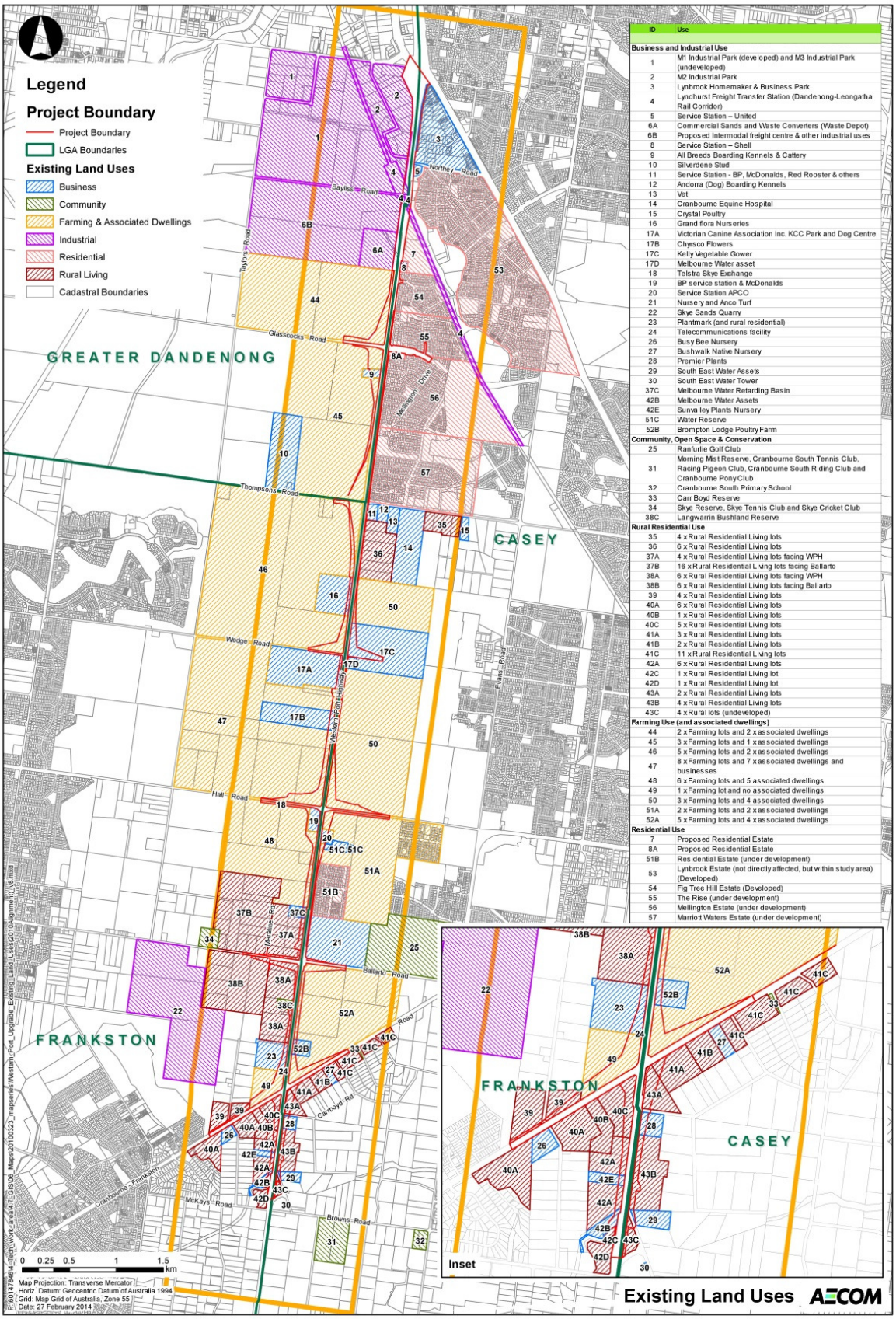
As described in Section 2.3, in preparation of continued growth in the south-east region, VicRoads is seeking to upgrade the WPH to freeway standard between the South Gippsland Freeway and Cranbourne-Frankston Road, inclusive of:

- Grade-separated interchanges at South Gippsland Highway (existing), Glasscocks Road, Thompsons Road (separate project), Wedge Road, Hall Road, and Cranbourne-Frankston Road.
- An overpass at Ballarto Road, thereby removing the existing T-intersection.
- Closing all direct driveway access from adjacent properties. All access to WPH to be via grade separated interchanges.
- Closing access from all at grade intersecting roads, except those listed above, to the WPH.

The proposed upgrade of the WPH is likely to affect land uses in one or more of the following ways:

- Acquisition of land.
- Acquisition of a building.
- Acquisition of land or change to freeway status closes driveway access to WPH, changing access arrangements.
- Change to freeway status closes road access to WPH, changing access arrangements.

Table 5.1 summarises the land use impacts on the study area and Figure 5.6 shows the location of these impacts.



ID	Use
Business and Industrial Use	
1	M1 Industrial Park (developed) and M3 Industrial Park (undeveloped)
2	M2 Industrial Park
3	Lynbrook Homemaker & Business Park
4	Lyndhurst Freight Transfer Station (Dandenong-Leongatha Rail Corridor)
5	Service Station – United
6A	Commercial Sands and Waste Converters (Waste Depot)
6B	Proposed Intermodal freight centre & other industrial uses
8	Service Station – Shell
9	All Breeds Boarding Kennels & Cattery
10	Silverdene Stud
11	Service Station - BP, McDonalds, Red Rooster & others
12	Andorra (Dog) Boarding Kennels
13	Vet
14	Cranbourne Equine Hospital
15	Crystal Poultry
16	Grandiflora Nurseries
17A	Victorian Canine Association Inc. KCC Park and Dog Centre
17B	Chrysco Flowers
17C	Kelly Vegetable Gower
17D	Melbourne Water asset
18	Telstra Skye Exchange
19	BP service station & McDonalds
20	Service Station APCO
21	Nursery and Anco Turf
22	Skye Sands Quarry
23	Plantmark (and rural residential)
24	Telecommunications facility
26	Busy Bee Nursery
27	Bushwalk Native Nursery
28	Premier Plants
29	South East Water Assets
30	South East Water Tower
37C	Melbourne Water Retarding Basin
42B	Melbourne Water Assets
42E	Sunvalley Plants Nursery
51C	Water Reserve
52B	Brompton Lodge Poultry Farm
Community, Open Space & Conservation	
25	Ranfurlie Golf Club
31	Morning Mist Reserve, Cranbourne South Tennis Club, Racing Pigeon Club, Cranbourne South Riding Club and Cranbourne Pony Club
32	Cranbourne South Primary School
33	Carr Boyd Reserve
34	Skye Reserve, Skye Tennis Club and Skye Cricket Club
38C	Langwarrin Bushland Reserve
Rural Residential Use	
35	4 x Rural Residential Living lots
36	6 x Rural Residential Living lots
37A	4 x Rural Residential Living lots facing WPH
37B	16 x Rural Residential Living lots facing Ballarto
38A	6 x Rural Residential Living lots facing WPH
38B	6 x Rural Residential Living lots facing Ballarto
39	4 x Rural Residential Living lots
40A	6 x Rural Residential Living lots
40B	1 x Rural Residential Living lots
40C	5 x Rural Residential Living lots
41A	3 x Rural Residential Living lots
41B	2 x Rural Residential Living lots
41C	11 x Rural Residential Living lots
42A	6 x Rural Residential Living lots
42C	1 x Rural Residential Living lot
42D	1 x Rural Residential Living lot
43A	2 x Rural Residential Living lots
43B	4 x Rural Residential Living lots
43C	4 x Rural lots (undeveloped)
Farming Use (and associated dwellings)	
44	2 x Farming lots and 2 x associated dwellings
45	3 x Farming lots and 1 x associated dwellings
46	5 x Farming lots and 2 x associated dwellings
47	8 x Farming lots and 7 x associated dwellings and businesses
48	6 x Farming lots and 5 associated dwellings
49	1 x Farming lot and no associated dwellings
50	3 x Farming lots and 4 associated dwellings
51A	2 x Farming lots and 2 x associated dwellings
52A	5 x Farming lots and 4 x associated dwellings
Residential Use	
7	Proposed Residential Estate
8A	Proposed Residential Estate
51B	Residential Estate (under development)
53	Lynbrook Estate (not directly affected, but within study area) (Developed)
54	Fig Tree Hill Estate (Developed)
55	The Rise (under development)
56	Mellington Estate (under development)
57	Marriott Waters Estate (under development)

Figure 5.4 Existing land uses

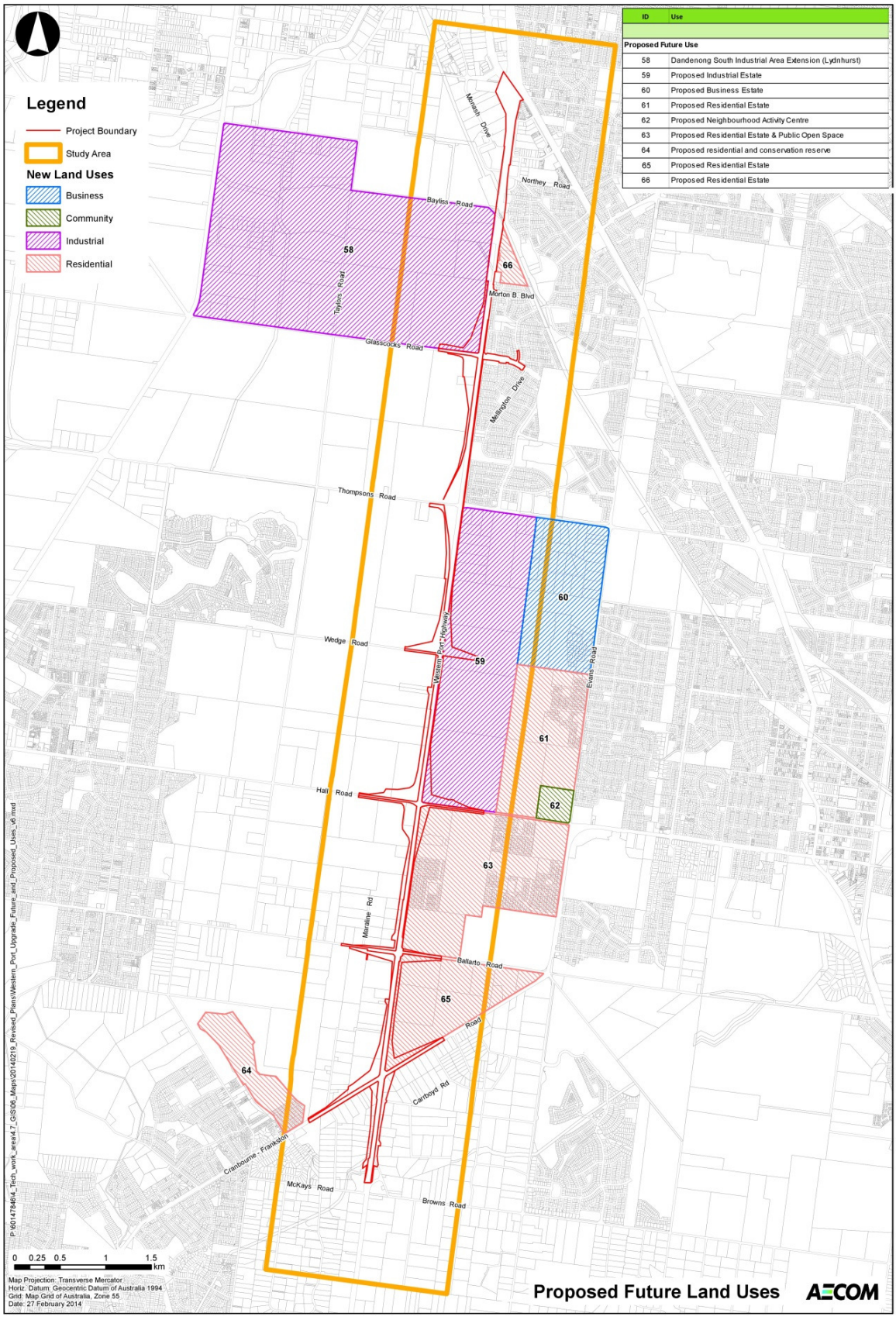


Figure 5.5 Proposed future land uses

Table 5.1 Land use impacts

	Significant quantity or portion removed#	Acquisition		Driveway closure	Road closure
		Land	**Building**		
Properties affected					
Business and industrial	6	11	4 (2)	14	Refer below
Service assets and reserves	3	11	0	6	
Rural residential living	15	39	12 (10)	35	
Rural farming and agistment	7	18	7 (4)	14	
Community, open space and conservation	0	0	0	1	
Proposed future residential (urban)	0	0	0	1	
Total	31	79	23 (16)	71	
Existing urban areas affected					
Industrial Areas (affected by Monash Dve and Bayliss Rd closures)					2
Business Areas (affected by Northey Rd)					1
Residential Areas (affected by Northey Rd and Moreton Bay Blvd closures)					2
Rural Residential Areas (affected by Ballarto Rd and Carrboyd Rd closures)					2
# Significant quantity or portion removed is a qualitative statement related to the size of the parcel, type of use and likely effect on future site use. It is typically greater than 20,000m^2 or 20% of the property and details are shown in the tables in Appendix D.					
(?) No of buildings that are occupied or habitable dwellings					

Business and industrial

The proposed upgrade of the WPH and transition to freeway status will require the acquisition of land and buildings, and will affect access to the WPH for local businesses. Summarised below are business / business areas affected. The tables in Appendix D set out in further detail how each business property is affected.

The proposed alignment will require the acquisition of land affecting eleven business properties. Of these properties, six will have a significant quantity or portion of their land acquired and four will be affected by the acquisition of buildings (including four business premises, two dwellings and one shed).

All of the eleven properties affected by acquisition, plus an additional three businesses, will have their driveway access directly affected by the proposed future works. Access will be restored to all these business via new driveways and existing or new local roads, except the APCO service station (ID 20) which is fully acquired.

The eleven properties where acquisition is required are shown in Table 5.2.

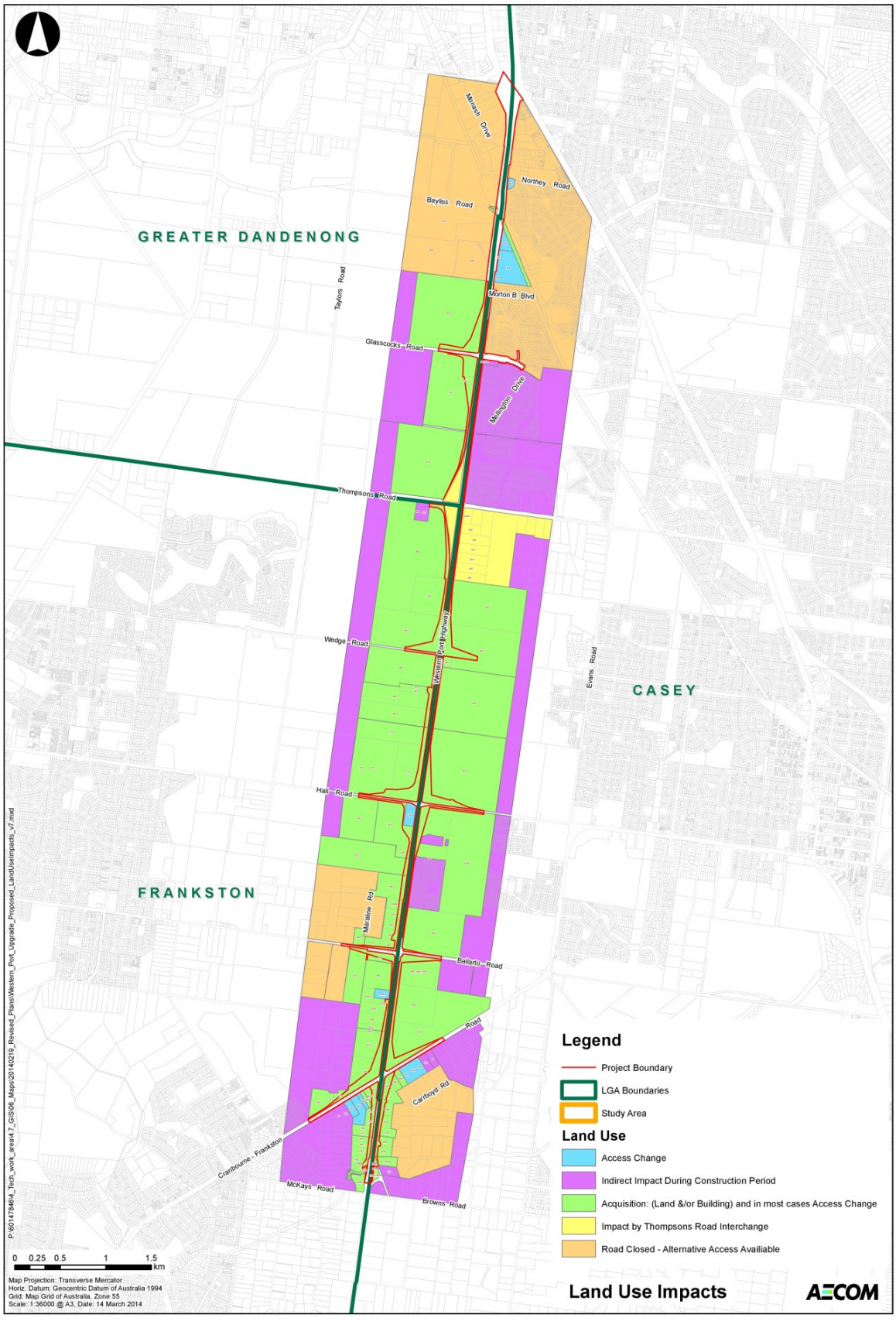


Figure 5.6 Land use impacts

Table 5.2 Business and industrial use - acquisition and access impact

Land Use ID	Address	Business
9	325 DANDENONG-HASTINGS ROAD LYNDHURST	Dog Boarding Kennel (All Breeds)
16	880 THOMPSONS ROAD & 565 DANDENONG-HASTINGS ROAD SKYE	Grandiflora Nursery
17A	665 DANDENONG-HASTINGS ROAD SKYE	Victorian Canine Association Inc, KCC Park & Dog Centre
17B	695 DANDENONG-HASTINGS ROAD CRANBOURNE	Chrysco Flowers
23	1075 DANDENONG-HASTINGS ROAD LANGWARRIN	Plant sales and agistment – Plantmark
42E	1175 DANDENONG-HASTINGS ROAD LANDGWARRIN	Sunvalley Plants Nursery
17C	620 DANDENONG-HASTINGS ROAD CRANBOURNE	Kelly Vegetable Grower
20	570S HALL ROAD CRANBOURNE WEST	APCO Service Station
21	950 DANDENONG-HASTINGS ROAD CRANBOURNE WEST	Nursery and Anco Turf
52B	980 DANDENONG-HASTINGS ROAD CRANBOURNE SOUTH	Brompton Lodge Poultry Farm
28	1140 DANDENONG-HASTINGS ROAD CRANBOURNE SOUTH	Premier Plants

The proposed upgrade to freeway status will affect driveway access to the WPH for the above eleven businesses, plus the three businesses shown in Table 5.3. The project restores access to the BP service station shown below (ID 19) via the Hall Road northbound exit and entry ramps. Access cannot be safely restored to the other two service stations via the Western Port Highway.

Table 5.3 Business and industrial use - access impact only

Land Use ID	Address	Business
19	550 HALL ROAD SKYE	McDonalds & BP Service Station
5	110A DANDENONG-HASTINGS ROAD LYNBROOK	Subway & United Service Station
8	200 DANDENONG-HASTINGS ROAD LYNDHURST	Shell Service Station

The principal effects of the project on businesses are:

- The All Breeds Dog Boarding Kennel and Cattery near Thompsons Road will not be affected by building acquisition but it will lose a significant portion of its land.
- The APCO Service Station near Hall Road will be fully acquired to accommodate the project.

- The Plantmark nursery at 1075 Dandenong-Hastings Road is affected by building acquisition and may lose passing trade due to the loss of direct access to Western Port Highway.

- The Premier Plants nursery near Carrboyd Road will not be affected by building acquisition but it will lose a significant portion of its land, including land occupied by a dam.

- The United service station at Northey Road, Lynbrook, will lose its access to the freeway and be left with access only to Northey Road (which will be closed to the freeway).

- The Shell service station near Moreton Bay Boulevard, Lyndhurst will lose its access to the freeway and have no alternative access.

The other affected businesses are not expected to experience any significant adverse impact. Opportunity exists to reconstruct affected infrastructure elsewhere on the properties. Generally the businesses do not appear to rely on passing trade.

Service assets and reserves

There are eleven properties used for retarding basins, drainage reserves and other service assets and reserves that are affected by land acquisition for the freeway upgrade. Ten of these properties are government or Council owned and one is privately owned. The privately owned land is to be fully acquired and has been set aside for road purposes as part of development in the Cranbourne West Precinct.

The eleven properties where acquisition is required are identified in the tables at Appendix D. Of these properties, three will have a significant quantity or portion of their land acquired.

The proposed upgrade to freeway status will affect driveway access to the WPH for five of the above eleven properties. Access will be restored to these properties as part of the project.

One additional property (180I Dandenong-Hastings Road) is affected by access changes, but not land acquisition. Alternative access to this property will be provided as part of development of the adjacent property for urban residential purposes.

The Melbourne Water owned water retarding basin at 925M Dandenong-Hastings Road is significantly affected by the proposed acquisition. Melbourne Water has advised that there will be sufficient remaining land available to expand the retarding basin to maintain the required storage capacity.

The impacts of the project on the uses of the other properties are not significant.

Rural residential living

The proposed upgrade of the WPH to freeway status will require the acquisition of land and buildings and will affect access to the WPH for rural residential properties. Details of the rural residential properties affected are set out in the tables in Appendix D.

The proposed freeway alignment will require the acquisition of land within 39 rural residential properties. Of these properties, fourteen will have a significant quantity or portion of their land acquired and one will be completely impacted requiring full acquisition. On rural residential properties up to twelve buildings including up to ten houses and two sheds will need to be acquired.

Of the ten properties potentially affected by house acquisition, detailed design of the project may enable acquisition of up to three of these houses to be avoided. These three properties plus one additional property have sufficient land to rebuild the houses if desired by the owner.

The proposed upgrade will remove driveway access to the WPH for 35 rural residential properties. VicRoads has made an undertaking to reinstate access to all of these properties using new service roads and driveways as necessary, generally to the nearest arterial road.

The proposed upgrade will also alter road access to the WPH for several rural living areas, these are:

- Access via Ballarto Road to rural living properties located to the west of WPH.
- Access via Carrboyd Road to rural living properties located to the south-east of WPH and Cranbourne-Frankston Road.

Properties affected by the Ballarto Road closure can make use of the existing road network, including McCormicks Road and Potts Road, to access Western Port Highway at Hall Road or Cranbourne-Frankston Road.

A new service road connected to Cranbourne-Frankston Road and potentially also Browns Road will provide alternative access for properties affected by the Carrboyd Road closure.

The majority of rural living properties could be expected to continue in this type of occupation as there is no foreseeable change of land use zoning with some exceptions. The exceptions are the rural living area located to the south-east of the WPH/Thompsons Road intersection, which due to the recently approved Cranbourne West Precinct Structure Plan will be redeveloped for urban use.

Rural including farming and agistment

Significant parts of the project area are currently used for rural purposes usually farming or agistment of animals. Some properties could better be described as vacant or awaiting development, as the original farming activity has ceased and the land if used at all is agisted to maintain the vegetation cover.

The proposed upgrade of the WPH to freeway status will require the acquisition of land and buildings, and will affect access to the WPH for farming properties.

The proposed alignment will require the acquisition of land within 18 farming properties (some properties have multiple addresses). Of these properties, seven will have a significant quantity or portion of their land acquired and seven buildings will need to be acquired of which four are houses and three are sheds. The properties affected by building acquisition have sufficient land to rebuild the houses or sheds if desired by the owner.

A total of 14 properties will have their driveway access removed by the proposed future works. VicRoads has made an undertaking to reinstate access to all of these properties using new service roads and driveways as necessary, generally to the nearest arterial road.

The 18 affected properties are identified in the tables at Appendix D.

Over time sections of the adjacent land on the eastern side will change from rural to industrial, business and residential use in accordance with recent approvals for structure plans and inclusions in the Urban Growth Area. This will not apply to all rural land, as the western side of the Highway south of Glasscocks Road is outside the current UGB.

Community, open space and conservation

The proposed alignment does not require the acquisition of any land from community, open space and conservation uses. The Langwarrin Bushland Reserve is the only such use abutting the Western Port Highway and the project has been aligned to avoid acquisition of this property. However, the property will lose driveway access to the Western Port Highway. Alternative access will be provided via a new service road connecting with Cranbourne-Frankston Road.

The proposed upgrade will change road access to the following community facilities:

- The replacement of the T-intersection with an overpass at Ballarto Road will change north-south access to Skye Reserve, Skye Tennis Club and Skye Cricket Club (ID34).

- The change to freeway status as part of the project and any additional upgrade to the south will result in the closure of Carrboyd Road and Browns Road, changing access to Cranbourne South Primary School (ID32), Morning Mist Reserve, Cranbourne South Tennis Club, Racing Pigeon Club, Cranbourne South Riding Club, and the Cranbourne Pony Club (ID31).

These facilities have alternative access routes that are available, or will be available in the future. The facilities on Ballarto Road have existing alternative access routes including north-south connections along McCormicks Road and Potts Road. To the east of WPH, access will be improved in the future via any extension of Ballarto Road from WPH to Cranbourne-Frankston Road, and connections to the north will be improved via new roads within the Cranbourne-West Structure Plan area. Existing access to community facilities on Browns Road is available via Pearcedale Road which runs north-south from Cranbourne-Frankston Road to North Road.

Existing urban areas – residential, business and industrial

Existing developed urban areas abutting the WPH are connected via local estate or collector roads which will need to be closed when full freeway upgrade occurs.

Residential areas

Residential areas with existing access to WPH are:

- Lynbrook Estate via Northey Road.

- Fig Tree and The Rise estates in Lyndhurst via Moreton Bay Boulevard, Carbine Way and Glasscocks Road.
- Mellington Estate via Glasscocks Road.
- Marriot Waters Estate via Thompsons Road.
- Ambrosia Estate via a temporary connection south of Hall Road.

Northey Road, Carbine Way, Morton Bay Boulevard and the temporary road access to Ambrosia Estate will be closed when the Highway is upgraded. Alternative access is available to Lynbrook Estate via South Gippsland Highway and to the Fig Tree, The Rise and Mellington estates via Glasscocks Road. Marriott Waters Estate has been planned without reliance on access to WPH. Ambrosia Estate has been planned and approved under the CWPSP and will eventually be accessed via estate roads created under this plan, including a connection to Hall Road.

The Carbine Way access was allowed on a temporary basis only and hence its closure should have minimal impact. The closure of Northey Road is also expected to have minimal impact, as adequate alternative access routes are available. The closure of Morton Bay Boulevard will have a more significant impact. The project includes signalisation of the Glasscocks Road/Aylmer Road intersection to mitigate the impacts of closing this road. The signalisation treatment was developed in consultation with Casey City Council.

Industrial areas

Industrial areas adjacent to WPH which will have access arrangements altered are:

- M1 Industrial Park with access via Monash Drive.
- Existing and developing Dandenong South industrial area with access via Bayliss Road.

Both Monash Drive and Bayliss Road will be closed when the freeway upgrade is implemented. Alternative access is available to the M1 Industrial Park via Abbotts Road. The Dandenong South Industrial Area is being developed in accordance with Development Overlays in the Greater Dandenong Planning Scheme and the Dandenong South Industrial Area Extension Structure Plan. These controls mandate an alternative access arrangement whereby Bayliss Road is closed and access to WPH is via Glasscocks Road and Abbotts Road.

Business areas

A business area, the Lynbrook Homemaker and Business Park, currently has access to WPH via Northey Road. Northey Road will close on introduction of the freeway upgrade. Adequate alternative access is available to the estate via Northey Road and Commercial Drive to the South Gippsland Freeway.

Proposed future land use

Certain areas of land adjacent to WPH are subject to future urban land development.

The major areas of note are:

- Area on the west side between Bayliss Road and Glasscocks Road which is subject to development for industrial purposes under the Dandenong South Industrial Area Extension Precinct Structure Plan.

- Area on the east side between Thompsons Road and Ballarto Road which is subject to development for industrial and residential urban purposes in accordance with Cranbourne West Precinct Structure Plan.

- Area on the east side between Ballarto Road and Cranbourne-Frankston Road which is subject to development possibly for residential purposes due to its recent (2012) inclusion in the UGB.

These areas of land are shown on Figure 5.5: Proposed future land uses.

The proposed upgrade of the WPH will require the acquisition of land and closure of local road access. Through sound planning processes and consultation between VicRoads and the Councils during the preparation of the various structure plans, alternative road access arrangements are mandated on the developers in these areas. This will ensure that the eventual restricted access along WPH is achieved and the new development areas contain a suitable alternative road access arrangement via the nominated grade separated interchanges.

The area between Ballarto Road and Cranbourne-Frankston Road is yet to be planned and VicRoads will maintain consultation with Casey City Council to ensure that the structure planning includes suitable access arrangements via the Ballarto Road overpass and the Cranbourne-Frankston Road interchange.

Conclusions – Land use issues

Land Use Context

On the west side, north of Glasscocks Road the Highway is bounded in part by existing industrial land use and land which is zoned for future industrial development. From Glasscocks Road south to Hall Road the adjoining land use is mainly rural with occasional more intensive use on individual sites. South of Hall Road land use is predominantly rural residential to the southern end of the project area. Interspersed with this land use pattern are individual uses of a commercial nature including a service station at Hall Road.

On the east side, north of Thompsons Road the Highway is adjoined by existing urban business and residential development including the developing Marriott Waters residential estate. South of Thompsons Road to Cranbourne Frankston Road the Highway is adjoined by land in predominantly rural or rural residential form awaiting and/or just commencing urban development. South of Cranbourne-Frankston Road the land use is rural residential with a couple of properties supporting small businesses.

The land use context is dynamic in the areas earmarked for future development, and relatively static in the other areas where planning policy aims to restrict further urban activity.

Land use impacts

Potential land use impacts arising from the project (including the allowance for a possible future railway line) include:

- 71 land parcels are affected by a new or expanded PAO.
- 79 land parcels are affected by land acquisition.
- 23 land parcels are affected by acquisition of houses, buildings or sheds.
- 71 of the land parcels are affected by driveway closures.

The most significant land use impacts arising from the project are:

- Removal of houses or buildings mainly from rural residential or rural/farming properties.
- Access removal for two service stations where there is no alternative available.

Of the 23 properties affected by land and building acquisition, 16 properties are of sufficient size to enable construction of replacement houses, buildings or sheds elsewhere on the property. Of the remaining 7 properties, 6 properties are rural residences with limited or no residual land to enable replacement housing. The other property is a service station on land that is to be redeveloped as residential.

The other significant land use impact relates to the loss of access at two service stations, with one service station having access to Northey Road and the other service station (near Moreton Bay Boulevard) having no alternative access.

Road closures associated with the upgrade project will affect existing and future urban areas and many properties near Western Port Highway are indirectly affected. Alternative access has been planned or is available for the urban areas and the impacts for existing and future users and occupiers of these areas are not considered to be significant.

5.5 Social issues

The contents of this section are summarised and in some cases directly transcribed from the report "Western Port Highway (North) Upgrade, Social Impact Assessment", AECOM, June 2014, which is included in Appendix E.

Introduction

A social impact assessment (SIA) was undertaken by AECOM in 2010 and then updated in 2014 for VicRoads as part of the planning assessment for the Western Port Highway (North) Upgrade project. The SIA provides information about the social impacts related to the introduction of a Public Acquisition Overlay (PAO) to reserve land for the future upgrade of the Western Port Highway (WPH) to freeway conditions, including the land required for a possible future railway line to Hastings, and the implementation of the future upgrade project.

Study Scope & Methodology

The SIA included reviewing information about the local area, including appropriate State and local planning policies and analysing local demographic characteristics. As part of the assessment consultation was undertaken with officers of the Cities of Casey, Frankston and Greater Dandenong as well as potentially affected landowners and other stakeholders. From this background work and the feedback received during the consultation, social impacts (positive and negative) of the project were identified and assessed. The last stage of the assessment included identifying mitigation measures and an assessment of residual impacts.

Stakeholder Consultation

Council officers identified the main issues of concern as being:

- Impact on **access** for employment, commercial and retail activities and to a lesser extent community facilities such as regional hospitals, arts and culture, sport and recreation based activities. Generally it was viewed that access would be improved across the region by the proposed upgrade of the WPH.

- **Severance** caused by the closure of streets and driveways to specific properties, the flow on impacts of re-orienting traffic, impacting access to facilities with large catchment areas, and constraining the potential for economic growth.

  Severance to urban growth areas including access to the Lyndhurst residential estates via Moreton Bay Boulevard and access to Settlers Run and Botanic Ridge via Browns Road and the development of Cranbourne West were raised as concerns. Another concern is that by not providing access to the WPH at Ballarto Road trucks from the extractive industries in this area would be forced to move through residential zoned areas.

- Providing for **individual mobility** in the form of cycle, pedestrian and bus facilities and providing safe crossings of the WPH corridor near Moreton Bay Boulevard, Thompsons Road and Hall Road.

- **Dislocation** of some land uses is being reported by landowners.

- **Amenity** impacts regarding noise attenuation and design being sympathetic to the environment and key views in the area.

The above issues were raised early in the planning study. VicRoads has consulted extensively with the Councils since the SIA to address and alleviate concerns.

Community values and concerns raised during the consultation included:

- **Sense of community** and the strength of association with particular properties in the local area.

- Concern about **lifestyle impacts** for landowners who consider that their properties are at risk of becoming unviable and dwellings unliveable.

- **Anxiety and uncertainty** for property owners caused by the WPH upgrade process.

- Concern about **impacts on property values** and other financial disadvantage associated with the introduction of the PAO.

- The need to continue suitable **access** to residential and industrial growth areas to the north-western and eastern part of the study area.

- Concern about **environmental impacts** including visual and noise impacts of the upgraded WPH on the existing and future communities within the study area.

- **Equity issues** between landholders on the eastern and western side of the WPH.

Business operation issues identified include:

- Loss of direct access to the WPH for deliveries and passing trade.

- Impact on resale value of businesses.

Social Benefits

The upgrade of the WPH will deliver integrated land use and transport benefits including:

- Safer driving conditions, particularly at intersections.

- Reduced traffic congestion and delays, particularly during peak periods.

- Reduced travel journey times.

- Improved access to and from nearby growth areas such as Cranbourne, Hallam and Hallam Park (all within the Casey-Cardinia Growth Corridor).

- Improved on-road freight movement from the Port of Hastings, and improved freight and passenger transport access to Greater Dandenong's strong industrial base at Lyndhurst and Dandenong South.

The introduction of the PAO will provide certainty for property owners and other stakeholders and will clarify future access arrangements for affected properties.

Impacts

This section identifies the potential social impacts within the study area as a result of the planning and implementation of the project.

Anxiety and uncertainty

Since the announcement of the proposed upgrade to the WPH in 2010 some residents living in the immediate area have identified feeling anxious about how to plan for their future. They have been uncertain and stressed about impacts on their properties including the acquisition process and impacts and changes to their lifestyle that this project will bring.

This impact which includes the process to introduce the proposed PAO is immediate and is likely to continue until the PAO process is completed and the extent of property acquisition is known and included in the relevant Planning Schemes.

Land acquisition and compensation impacts

The impact related to the acquisition and compensation process includes the concern about the effect the project will have on property prices, especially if a landowner wants to sell before their property is acquired and an uncertainty about whether they will receive a fair value for their property through the acquisition process. This issue is compounded for some residents who have been through the process already for road widening that has taken place and they have not been satisfied with the outcomes.

Changes to local access

The upgrade of the WPH is likely to have both beneficial and adverse impacts on local access. The adverse impacts will be experienced by landowners and residents who will lose direct access to the WPH or their local access may become more circuitous.

For residents within the greater south-east region, the WPH upgrade is likely to improve both north-south and east-west vehicle access to key regional destinations. The upgrade will also facilitate the continued urban and population growth that is projected for the region.

Severance

The WPH upgrade is likely to result in the following severances to properties abutting the WHP and/or proposed interchanges:

- 79 properties are to be at least partially acquired as a result of the Project. 57 of these are rural residential or farms with dwellings, 11 are businesses and 11 are reserves for water and other assets.

- A total of 71 properties are affected by driveway changes, including all properties currently with direct access to WPH.

- A number of local businesses that are dependent on access to and from the WPH are impacted.

Roads that currently have direct access to the WPH which will be closed are:

- West side of WPH: Monash Drive, Bayliss Road and Ballarto Road.
- East side of WPH: Northey Road, Moreton Bay Boulevard and all feeder roads, Carbine Way, Wild Sage Court (recently closed) and Carrboyd Road.

Roads that would only have north facing ramps are: Wedge Road.

Individual mobility

The WPH upgrade has the potential to limit existing and future alternative modes of transport including walking, cycling and public transport.

Dislocation

The potential for dislocation impacts may occur at the grade separated interchanges.

Glasscocks Road and Thompsons Road interchanges are located on the western side of Western Port Highway where there is predominantly farming land uses which limit impacts on residential uses on the eastern side.

Wedge Road interchange is centrally located which impacts on stock grazing area on the west side of Western Port Highway and more intensive horticultural practices on the east side.

Hall Road interchange is located on both sides of Western Port Highway, and slightly more to the east to avoid impact to the service station on the west side. The interchange proposal would have similar impacts if located on the west side as there is a service station on both sides of the Highway in this location.

At ***Cranbourne-Frankston Road*** there is intensity of land uses on both of the southern sides of the intersection and it is likely that the impacts would be generally similar. Land uses in the north are generally more dispersed. Land from up to 30 properties would be acquired and this would result in varying levels of dislocation of these households.

Anecdotal information indicates that east-west connections are relatively weak given historic land use patterns to the east and west of the WPH. Therefore the physical barrier that already exists is unlikely to further dislocate social interaction.

Changes to residents' amenity

Visual amenity is addressed in a *Visual Assessment* prepared by AECOM (refer Section 5.8). The report notes that it is inevitable that a project of this scale will result in visual changes. Although the roadway is generally following the existing route it would operate at a different scale and introduce changes to the local environment.

Noise is addressed in a *Traffic Noise Assessment* prepared by AECOM (refer Section 5.10). Traffic noise modelling indicated that 99 residences would see an increase in traffic noise by 1 to 3 dB(A)L10 (18 hour), 74 residences would experience an increase of 4 to 10 dB(A)L10(18hour), 12 residences would see a decrease in noise levels and there would be no change in noise levels at 6 residences.

Air Quality is addressed in an *Air Quality Assessment* prepared by AECOM (refer Section 5.11). The two pollutants assessed in this report were: particulate matter less than 10 microns (PM10) and nitrogen dioxide (NO2) as they are major motor vehicle pollutants. No adverse air quality impacts are predicted as a result of the Project.

Vegetation impacts are considered in a *Flora and Fauna Impacts* prepared by AECOM (refer Section 5.7).

Mitigation

This section identifies mitigation measures that could be undertaken to lessen the social impacts, some of which have already been included in the project.

Following the 2010 SIA a number of recommendations to refine the concept alignment were recommended and have been largely adopted in the current design including:

- Adopting narrower interchange configurations.
- Minimising land acquisition required by tightening boundaries where possible, particularly around the Glasscocks Road and Cranbourne-Frankston Road interchanges.
- Reviewing and amending access restoration to not require new local roads across properties and to generally run parallel with the WPH. The current plans better meet the needs and views of locals.
- Ensuring there is sufficient access to Dogs Victoria and Grandiflora.
- Ensuring buses are appropriately accommodated. The design for the WPH upgrade includes bus priority lanes at most interchanges to improve bus travel times.

In relation to timeliness VicRoads will:

- Endeavour to complete the necessary studies to support the introduction of the PAO in as timely a manner as possible.
- Continue to keep stakeholders up to date with information about the project.

In relation to land acquisition, VicRoads will compensate owners in accordance with legislative requirements and endeavour to complete the acquisition and compensation process in a timely manner and with minimum impact.

In regard to cycling and pedestrian facilities, the proposed PAO boundaries provide for existing/proposed off-road cycling and pedestrian paths along the eastern side of the WPH to be extended further north and south to the limits of the project area.

In relation to businesses losing direct access to the WPH, the plans for the project show modified access to all businesses identified via existing or new roads, except the service stations east of WPH near Northey Road, Moreton Bay Boulevard and Hall Road respectively (with the latter being fully acquired).

In regard to visual amenity the project is broadly compatible with applicable visual objectives in policies and plans covering this area. The visual assessment section of this report outlines a number of mitigation measures to be incorporated into the design.

In relation to noise impacts, *VicRoads Traffic Noise Reduction Policy* indicates that the potential upgrading of the WPH between South Gippsland Freeway and south of Cranbourne-Frankston Road is not eligible for noise attenuation.

In regard to vegetation impacts the vegetation and ecological impacts section of this report identifies possible mitigation for impacts. The impacts on vegetation and the natural environment are likely to be relatively low as the area has been highly modified for agricultural and pastoral uses and urban development.

Other mitigation measures that will be considered during the detailed design and construction phases of the project include:

- Ensuring access is maintained during construction.
- Actively communicating with landowners during the detailed design phase prior to construction to ensure their needs for access can be maintained.
- Reinstating/constructing new permanent access as early as possible in the construction period.
- Efficient delivery of the north-south pedestrian and cycling path.

Conclusion

The Social Impact Assessment found that *"a net community benefit is likely for the Victorian community as the WPH upgrade will be a catalyst for economic growth and employment"*.

The report found that *"the WPH upgrade is also likely to result in a net community benefit for the greater metropolitan south-east region through improved accessibility to employment nodes, activity centres and community infrastructure. It is likely to improve:*

- *The connectivity of friends and family who are dispersed throughout the greater south-east region;*
- *Traffic safety as a result of reduced conflicts at roundabouts and between trucks, tourism traffic and local traffic;*
- *Travel times to all of these destinations.*"

The SIA provides strategic justification to support the planning scheme amendments to introduce a PAO for the proposed upgrade of the WPH including interchanges and closures of access routes within the study area. The benefits of the project to local, regional and State communities is strong. There will be impacts on local affected land owners but these can be minimised by the implementation of the mitigation measures suggested.

The introduction of the PAO will provide certainty for property owners and other stakeholders and will clarify future access arrangements for affected properties.

Conclusions – Social issues

The Western Port Highway (North) project will negatively impact properties abutting the road. Negative social impacts relate to anxiety and uncertainty about project impacts and timing, land acquisition and compensation impacts, local access changes, severance to properties, individual mobility limitations, dislocation due to the barrier effect of the road, and changes to resident's amenity.

The Social Impact Assessment suggested numerous measures to mitigate social impacts, which have been considered in the planning to date and will be considered further during the detailed design, land acquisition and construction phases of the project.

Despite these local impacts the project is expected to provide a net community benefit to the Victorian community, particularly the metropolitan south-east region where it will provide improved accessibility to employment nodes, activity centres and community infrastructure and a catalyst for economic growth and employment.

5.6 Economic effects

5.6.1 Economic benefits

The Western Port Highway (North) Upgrade project is expected to have significant positive economic benefits particularly for the overall road transport function in this sector of the metropolitan area. It will provide a more efficient road transport network and reduce the time and cost of travel locally and in and through the local area. In this respect it will support and facilitate proposed local developments.

It is predicted that in providing a high standard linkage between the major arterials in the region that the project will have positive impacts on wider transport functions, including links between employment areas in Dandenong South, Cranbourne West and the Port of Hastings. The freeway conditions will support efficient freight movement on this Principal Freight Route, and are integral to the economic success of the State significant development proposed in Dandenong South and the Port of Hastings.

The upgraded Western Port Highway will provide high-capacity connections to arterial cross-roads and relief to parallel roads, with consequential access and amenity benefits to properties along these parallel roads. In particular the interchanges proposed at Glasscocks Road, Thompsons Road and Wedge Road will provide good access to nearby industrial and employment uses.

An economic assessment of the project by Parsons Brinckerhoff (July 2014) as shown in Appendix F indicates that the project is estimated to have a benefit cost ratio of at least 4. The assessment was based on the traffic modelling discussed in Section 5.3 and considered savings in travel time, vehicle operating costs and road crashes and impacts to environmental externalities due to the project.

It is considered that the positive benefits of the project to the broader community outweigh the negative impacts to some local businesses.

5.6.2 Economic impacts

The potential adverse economic effects of the project could arise:

- *Directly* from the loss of land, buildings or property access that would remove part or all of the business function of the site, or
- *Indirectly* through changed access and/or traffic conditions to or past particular properties or through changes in the operating environment of a particular business.

The Transport Infrastructure Assessment (VicRoads, July 2014) in Appendix B discusses the potential impacts of the project on businesses abutting and near the Western Port Highway. The design of the project has considered these impacts and incorporated measures to reduce impact where possible and appropriate.

Impacts to service stations

The Western Port Highway is abutted by four service stations on the east side and one service station on the west side. Direct access from adjacent land to freeways is only allowed in exceptional circumstances. Such circumstances may include service stations where the provision of access could provide road safety benefits by encouraging drivers to stop and rest.

The project design retains access to the service station at the south-west corner of the Western Port Highway/Hall Road intersection. Access to and from the service station is proposed via the northbound exit and entry ramps at the Hall Road interchange. This service station is the only service station abutting the west side of Western Port Highway and hence provides road safety benefits by encouraging northbound drivers to stop and rest.

The project design retains access to the service station south-east of the Western Port Highway/Thompsons Road intersection, consistent with the design for the Thompsons Road Duplication project (which was subject to a separate planning study and planning scheme amendment). This service station provides benefits to southbound traffic using Western Port Highway.

The provision of access to additional service stations on the east side of Western Port Highway for use by southbound traffic would provide negligible additional benefits in terms of encouraging drivers to stop and rest.

The project requires acquisition of the service station south-east of the Western Port Highway/Hall Road intersection to accommodate the Hall Road interchange and the realignment of Western Port Highway to the east to retain the service station south-west of the intersection. The acquisition of this service station is consistent with the Cranbourne West Precinct Structure Plan, which identifies the land occupied by the service station as being potentially acquired by VicRoads for the purposes of upgrading Western Port Highway to freeway standard.

Concept Design and Engineering Considerations (AECOM, June 2014) in Appendix A assesses the feasibility of providing access to the two service stations east of Western Port Highway and near Northey Road and Moreton Bay Boulevard. The assessment concluded that safe entry and/or exit cannot be provided to these two service stations due to the close proximity to interchange ramps at nearby arterial cross-roads. The spacing between ramps would be far less than absolute minimum design standards.

The service station near Northey Road would retain access to Northey Road, however, the loss of access to Western Port Highway is expected to have a significant adverse impact on the viability of the business. The service station near Moreton Bay Boulevard would not be accessible and hence could no longer operate.

The three service stations affected by the project are expected to be eligible for compensation in accordance with the *Land Acquisition and Compensation Act* or *Road Management Act*.

Impacts to other businesses abutting Western Port Highway

Section 5.4.2 identifies the businesses affected by land acquisition and/or property access changes. In addition to the four service stations discussed above, ten other business premises are affected by the project. The impact of the project on these ten businesses is discussed below. All properties would be eligible for compensation in accordance with the *Land Acquisition and Compensation Act*.

Some additional properties may also operate home-based or similar businesses, however, these businesses are not noticeable from the roadside and hence presumably do not rely on access to the Western Port Highway. The impact to these businesses is expected to be minimal. Any impacts to the properties due to land acquisition can be compensated in accordance with the *Land Acquisition and Compensation Act*.

All Breeds Boarding Kennels and Cattery (325 WPH)

Although the buildings on this property are not affected by acquisition, a significant portion of land would be acquired for the project which could potentially affect the business operations.

The property would lose access to Western Port Highway. Access to the property would be restored via Thompsons Road, which should provide adequate access to the business.

Grandiflora Nursery (565 WPH)

The project requires some acquisition of land from this property, however, the acquisition does not affect any buildings. A portion of the car park is affected, however, opportunity exists to relocate the car park to elsewhere on the property.

The property would lose access to Western Port Highway. VicRoads has consulted extensively with the business owner to develop appropriate access restoration proposals. Although the business does not rely on passing trade, it generates around 200 veh/day including some semi-trailers and B-Doubles.

The project restores access to the business via Thompsons Road, which provides more convenient access to the surrounding road network than the nearby Wedge Road. Right and left turn entry and left turn exit would be allowed at the Thompsons Road access. Right turn exit movements could not be safely accommodated, and exiting vehicles destined for the east would need to turn left and perform a U-turn at a median opening to the west.

Victorian State Dog Centre (665 WPH)

The project requires acquisition of a narrow strip of land across the frontage of this property, which should have negligible impact on the business operations.

Access to the property would be provided via a relocated driveway in Wedge Road, with the Wedge Road northerly ramps providing good access to and from the north. Access to the south is proposed via an access restoration road between the southern boundary of the property and Hall Road. The access restoration proposals should provide adequate access to the business.

Chrysco Flowers (695 WPH)

The project requires acquisition of a narrow strip of land across the frontage of this property, which should have negligible impact on the business operations.

The property would lose access to Western Port Highway, however, the business does not appear to rely on passing trade. Access to the property would be restored via an access restoration road connecting with Hall Road.

Right and left turn entry and left turn exit would be allowed at the Hall Road access. Right turn exit movements could not be safely accommodated, and exiting vehicles destined for the west would need to turn left and perform a U-turn at an appropriate location to the east.

Plantmark (1075 WPH)

The project requires some acquisition of land from this property, which comprises residential and business uses. The business car park is affected by the acquisition and potentially could be relocated to elsewhere on the property. The property would lose access to Western Port Highway, with access to the property restored via an access restoration road connecting with Cranbourne-Frankston Road.

There has been multiple changes in the operator of the business on this property in recent years, with different operators selling plants, animal feed and similar products. The nature of the business may continue to change over time. The current business may rely on passing trade, and hence the indirect nature of the access restoration proposal may affect the business operations.

Sunvalley Plants Nursery (1175 WPH)

The project requires some acquisition of land from the frontage of this property, which should have negligible impact on the business operations.

The property would lose access to Western Port Highway. Access to the property would be restored via an access restoration road connecting with Cranbourne-Frankston Road. The business does not appear to rely on passing trade and hence the access changes may not adversely impact the business.

Kelly Vegetable Grower (620 WPH)

The project requires acquisition of a significant portion of land from this property to accommodate the Wedge Road interchange. The interchange is required to service future industrial development to the east, consistent with the Cranbourne West Precinct Structure Plan.

Should the property be redeveloped for industrial purposes prior to the construction of the project, then the redevelopment would be undertaken in a manner compatible with the project and its associated land acquisition and access proposals.

Should the business still be operational at the time of construction of the project, then it would be affected by a reduced land area for vegetable growing. The buildings on the property would not be affected by acquisition and access would be restored via Wedge Road and/or the north-south road proposed to the east of the property. The business does not appear to be reliant on passing trade and hence the access changes should have minimal impact on business operations.

Anco Turf (950 WPH)

The project requires acquisition of land from this property and redirection of access from Western Port Highway to Ballarto Road. Should the business still be operational at the time of construction of the project, then there is ample land on the property to reconstruct the buildings affected by the project. The business does not appear to be reliant on passing trade and hence the access changes should have minimal impact on business operations.

This property is proposed to be redeveloped for residential purposes, and it is expected that the redevelopment will occur prior to construction of the project. The Cranbourne West Precinct Structure Plan provides the basis for redevelopment proposals, and was prepared on the basis of the Western Port Highway being upgraded to a freeway with an overpass without ramps at Ballarto Road. Future residences will be located clear of VicRoads' land acquisition requirements and property access will not rely on Western Port Highway.

Brompton Lodge (980 WPH)

The project requires acquisition of land from this property and redirection of access from Western Port Highway to Ballarto Road and Cranbourne-Frankston Road. Should the business still be operational at the time of construction of the project, then there is ample land on the property to reconstruct the buildings affected by the project. The business does not appear to be reliant on passing trade and hence the access changes should have minimal impact on business operations.

This property is proposed to be redeveloped for residential purposes, and it is expected that the redevelopment will occur prior to construction of the project. A structure plan is currently being developed in consultation with Casey City Council and VicRoads, to ensure that the redevelopment is compatible with the project and its associated land acquisition and access proposals. Future residences will be located clear of VicRoads' land acquisition requirements and property access will not rely on Western Port Highway.

Premier Plants (1140 WPH)

The project requires acquisition of a significant portion of land from this property, including land occupied by a private dam. The acquisition could potentially affect the business operations.

The property would lose access to Western Port Highway, with access to the property restored via an access restoration road connecting with Cranbourne-Frankston Road. The business does not appear to rely on passing trade and hence the access changes may not adversely impact the business.

Indirect impacts to businesses

The project involves closure of access between Western Port Highway and Monash Drive, Bayliss Road and Northey Road. These local roads are used by local business for convenience purposes, however, adequate alternative access is available (or will be available as part of development proposals) via roads not affected by the project. The businesses do not rely on passing trade from Western Port Highway, and the impacts of the access change associated with the project are expected to be minimal.

The project also involves closure of access between Western Port Highway and Ballarto Road. Businesses in Skye that currently make use of the Western Port Highway would need to make use of alternative roads, including McCormicks Road and Potts Road. The project includes intersection upgrades along these alternative routes as necessary to safely and efficiently accommodate diverted traffic.

Conclusions – Economic effects

The project is expected to have significant positive economic benefits for the overall road transport function in this sector of the metropolitan area and will also support local development and land use.

An economic assessment of the project indicates that it is estimated to have a benefit cost ratio of at least 4.

The most significant adverse impacts of the project on local businesses are associated with acquisition of land or loss of access to three service stations abutting the east side of the Western Port Highway. One service station is acquired and the other two service stations lose all access to the Western Port Highway, rendering the businesses unviable.

Acquisition of a significant portion of land is required from the All Breeds Boarding Kennels and Cattery. Two nurseries, Plantmark and Premier Plants, are adversely affected by the project. Changes in business operations may be required to maintain the viability of these businesses.

The impact to other businesses is expected to be minimal and/or manageable.

The affected properties and businesses would be eligible for compensation in accordance with the *Land Acquisition and Compensation Act* or *Road Management Act.*

The road closures associated with the project could affect the access routes of some local businesses near the Western Port Highway. Adequate alternative access is available via existing roads, or upgraded or new roads proposed as part of the project or land use development.

It is considered that the positive benefits of the project to the broader community outweigh the negative impacts to some local businesses.

5.7 Ecological issues including native vegetation

The contents of this section are summarised and in some cases directly transcribed from the report "Western Port Highway (North) Upgrade, Flora and Fauna Assessment", AECOM, May 2014, which is included in Appendix G.

Introduction

A number of ecological assessments have been undertaken for the upgrade of the Western Port Highway to freeway conditions between South Gippsland Highway and south of Cranbourne-Frankston Road. A desktop assessment was conducted in 2008 followed by detailed assessments and targeted surveys for particular flora and fauna species and a preliminary Net Gain Assessment. All of the information from past ecological reports is contained in the report "Western Port Highway (North) Upgrade, Flora and Fauna Assessment", AECOM, May 2014.

Targeted field surveys were undertaken for the following plant species:

- River Swamp Wallaby Grass
- Wetland Blown Grass
- Studley Park Gum
- Threatened orchids including Metallic Sun-orchid

Targeted field surveys were undertaken for the following fauna species:

- Southern Brown Bandicoot and New Holland Mouse
- Swamp skink
- Growling Grass Frog and Southern Toadlet

Additional observations were made to improve the existing knowledge of faunal species in the area. An emphasis was placed on inspecting potential habitat for the following threatened bird species:

- Brown Quail
- Latham's Snipe
- Powerful Owl
- Chestnut-rumped Heathwren
- Hooded Robin.

Study area

The study area lies within the Gippsland Plains Bioregion. The area has been largely cleared of native vegetation for residential and transport purposes. However, there are some areas of remnant vegetation and fragmented patches adjacent to the WPH. The Western Port Bay Ramsar site lies within approximately 10km to the south of the land assessed.

The study area includes the whole of the existing and proposed road reservation, including the land for the freeway and possible future railway line.

Survey results

The following eight Ecological Vegetation Classes (EVCs) were recorded in the study area (proposed project reservation) and cover approximately 17ha of the area and total 5.36 habitat hectares:

i. Heathy Woodland (EVC 48)
ii. Grassy Woodland (EVC 175)
iii. Swampy Riparian Woodland Scrub (EVC 83)
iv. Swampy Woodland (EVC 937)
v. Swamp Scrub (EVC 53)
vi. Riparian Scrub (EVC 191)
vii. Plains Grassy Woodland (EVC 55)
viii. Damp Heathy Woodland (EVC 793)

The highest quality values within the study area were:

i. Intact stands of remnant vegetation at Habitat Zones (HZs) 1A, 2A-3, 7-8, 9B, 10A, 12A, 12B, 17A, 17B, 18-26.

ii. HZs 12A and 12B (Langwarrin Bushland Reserve) are of particular importance in terms of fauna and flora diversity and their importance as part of future improvements in ecological connectivity in the region. The project has been aligned to avoid any direct impact to the reserve.

The locations of the above habitat zones are shown in Figures 2a to 2d from Appendix H of *AECOM's Flora and Fauna Assessment (May 2014)*.

The key conclusions of the assessment were as follows:

- No threatened flora were recorded in the study area. A number of relatively common orchid species were identified that are protected under the FFG Act, however, none of these species are listed under the FFG Act or are considered threatened by the Department of Environment and Primary Industries (DEPI).

- Apart from an unconfirmed sighting of a Nankeen Night Heron, only one threatened bird species was recorded from the study area during field surveys, that being the Pacific Gull (listed as near threatened in Victoria).

- The Growling Grass Frog was not recorded in the study area despite targeted surveys. There is a low likelihood of occurrence within the study area.

- The Southern Toadlet was not recorded in the study area despite targeted surveys. There is a moderate likelihood of occurrence within the study area, particularly in HZs 9B, 10A and 12B.

- The study area is considered to provide very low quality habitat for the Dwarf Galaxias.

- The most common species trapped during the field surveys were the Red Fox, Black Rat, Swamp Rat and Common Brush-tailed Possum.

- The Southern Brown Bandicoot was not recorded in the study area despite targeted surveys. However, due to a recent historical record in the broader area there is still a low potential for this species to be present in heathy woodland on the western side of the WPH south of Cranbourne-Frankston Road.

- No New Holland Mouse were detected, despite targeted surveys. The last record in the study area is from 1975 so there is a low likelihood of occurrence of the species within the study area.

- The swamp skink was not detected in the study area during field surveys but has a moderate likelihood of occurrence within the HZs 9A, 10A, 12A and 12B.

A preliminary Net Gain Assessment indicates that the project potentially requires clearing across the three municipalities of 5.85ha of habitat zones, 81 large old trees within the habitat zones and 110 scattered trees. In accordance with Victoria's Native Vegetation Management - A Framework for Action, VicRoads has assessed the required offsets for these potential impacts as 1.82Hha of vegetation and 285 trees to be protected, and 2,600 new trees to be recruited.

Recommendations and mitigation

The following recommendations by the Consultant will be addressed by VicRoads during the detailed design phase and prior to construction:

- Where possible avoid removal or damage to remnant native vegetation, particularly the more intact stands and significant EVCs at HZs 2A, 2B, 3, 7, 8, 9B, 10A, 12A, 12B, 17A, 17B and 18-26.

- Given the amount of vegetation on the western side of the Highway south of Ballarto Road and the potential presence of Southern Toadlet, Swamp Skink and Southern Brown Bandicoot, should vegetation and habitat removal be required it is preferable to impact land on the east of the Highway within this section.

- Where possible avoid removal or damage to scattered trees.

- Obtain a permit from the local Council for removal of native vegetation. As the project includes public land, a referral to DEPI is likely.

- Obtain a permit from DEPI for removal of FFG listed species.

- Where possible avoid direct and indirect impacts to waterways and water bodies.

- Implement weed management measures during construction.

- Where possible retain suitable habitat forming vegetation such as logs within remnant patches of native vegetation and wildlife corridors.

- Prepare a Construction Environmental Management Plan (CEMP) will be prepared prior to construction to address issues such as: detailed designs for bridges and culverts, weed control and the protection of native vegetation.

- Provide offsets as a result of native vegetation removal and lopping. The final offsets will be determined once the final alignment and on ground impacts are known during the detailed design phase.
- Prepare and implement a 10 year Offset Management Plan.
- Any revegetation as part of net gain offsets should utilise appropriate plant species.

Conclusions – Ecological issues including native vegetation

The study area lies within the Gippsland Plains Bioregion. The area has been largely cleared of native vegetation for residential and transport purposes.

However, there are some areas of remnant vegetation and fragmented patches adjacent to the existing WPH and within the proposed project reservation. The highest quality intact stands of remnant vegetation can be found at Habitat Zones (HZs) 1A-3, 7, 8, 9B, 10A, 12A, 12B, 17A, 17B and 18-26.

HZs 12A and 12B (Langwarrin Bushland Reserve) are of particular importance in terms of fauna and flora diversity, and the project has been aligned to avoid any direct impact to the reserve.

No threatened flora and fauna species were identified in the targeted surveys, except for two birds that may be occasional visitors to the area.

VicRoads will seek to minimise native vegetation impacts during detailed design. Permits for native vegetation removal will be sought from the relevant Councils and offsets will be provided in accordance with a10 year Offset Management Plan.

5.8 Landscape considerations and the visual environment

The contents of this section are summarised and in some cases directly transcribed from the report "Western Port Highway (North) Upgrade, Visual Assessment", AECOM, July 2014, which is included in Appendix H.

The Visual Assessment considered the potential visual impacts of a future upgrade of Western Port Highway between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road to freeway standard, including the provision of interchanges and overpasses. The assessment did not consider the visual impact of any future railway line, as this will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

Existing landscape and visual character

The study area is characterised by flat to gently undulating topography in the northern part of the alignment, rising toward the south and east, with key vistas typically oriented toward the southeast and northwest.

Vegetation within the study area is generally sparse and highly modified leaving scattered mature trees in pastures and roadsides and small fragmented roadside patches of trees and understory planting. Also typical are planted windrows and median vegetation. Some remnant vegetation exists primarily along waterways and in the southern portion of the alignment.

Much of the land to the west of the Western Port Highway (WPH) between Bayliss Road and Cranbourne-Frankston Road is characterised by open plains that are either presently or recently under agriculture. The land to the east of WPH in this vicinity is increasingly being converted to residential communities, while north of Bayliss Road most land on each side of the WPH alignment is used for industrial purposes or planned for future industrial use. South of Cranbourne-Frankston Road existing residential uses constitute the outlying perimeter of Cranbourne South. Other uses along the WPH alignment include a plant nursery, several service stations and fast food outlets, boarding kennels and cattery and the Victorian Canine Association.

There are few existing large structures associated with the roadway within the WPH project area. The intersections of major roads with the WPH are presently at grade, two lane intersections with roundabouts. The only overpass within the project area is over the South Gippsland Freeway.

Compatibility with the existing local area

For the most part the future upgraded WPH project will follow the grade of the existing WPH with only slight cuts and fills required to smooth out small rises and falls in the land. In this way, the existing line and form of the road will be largely replicated, although in some places the road would shift or expand to accommodate additional lanes. As intersections will become grade separated, the interchanges will be elevated, with the exception of Glasscocks Road, which will be at grade and pass under an elevated WPH, resulting in new bridges and associated vegetated slopes in the local visual environment.

The WPH project represents a large infrastructure change in the local environment. Although representing a change in the visual environment in an increasingly urbanised area, is not an uncommon feature nor would it be out of place or particularly memorable as a feature on the landscape. This project will undoubtedly alter the existing landscape, amenity and local character of the project area. A project of this scale, although roughly following the existing alignment of the road, will result in visual changes. Residents, motorists and recreational users of the pathways adjacent to the WPH will notice changes, not least during construction, when disruption will be at its greatest.

As a result of the project new elements will be constructed, both horizontal (access ramps) and vertical (bridges over the roadway). These changes are within the context for an increasingly urbanised area. The project is even within context of the rural land to the west of WPH, since the proposed features such as grade separations and service road changes also exist within a number of similar settings.

The planned residential and industrial communities along the eastern side of the WPH corridor incorporate buffers of up to 20 metres between the edge of structures and the WPH right-of-way to accommodate vegetation and recreational trails and may include car parking for the industrial site. This separation and vegetation buffer will assist in distancing the receptors associated with future development from the roadway. This is a key factor in lessening the severity of visual effects.

By contrast, within the Green Wedge areas, residences and structures are more sparsely interspersed, though typically, each building has a larger footprint than those found on the eastern side of the WPH or in the residential area around Cranbourne-Frankston Road.

Further south around Cranbourne-Frankston Road, the development takes on a more organic appearance, with less manufactured feel to the orientation, design, textures and colour schemes of these residences, since they have been designed individually and not as a group. Screening of these areas from the WPH can be done effectively.

Visual receptors

A range of sensitive visual receptors were identified within the study area including residents, motorists, recreational users and workers.

Residents are considered the most sensitive to potential changes associated with the WPH project. Existing residents adjacent to and in the vicinity of the WPH experience views of long duration and have the greatest personal knowledge of the roadway's appearance and its form within the landscape. Thus they are most likely to notice and experience any changes at the site and are considered the most sensitive group of those viewing the project area.

Motorists are typically transient and have minimal connection with the existing landscape. Most of the visual effects experienced by motorists travelling along the WPH would occur during construction. The effects of construction (ie. increased congestion and slower speeds) would make the changes more apparent and visible to these motorists. Motorists travelling on the cross roads will experience changes differently to those driving along the WPH. In all but one case, the intersecting roads change elevation quite dramatically as they rise to pass over the top of WPH.

Recreational users of the pathways adjacent to the WPH would have views of longer duration but they would be partly visually screened from WPH due to planned buffer plantings and topographic changes as identified in the Cranbourne West Precinct Structure Plan and Lynbrook and Lyndhurst Development Plan.

Workers at industrial sites as identified on the Lynbrook and Lyndhurst Development Plan and Dandenong South Industrial Area Extension would experience views of the project site as they approach and leave work, but are considered to have less personal investment in the visual appearance of the site and its vicinity. These would be the least sensitive of the viewers identified for the project.

Landscape treatment options

In many instances landscape measures can be used to ameliorate visual impacts. The planned communities within the project vicinity have been aware of the future development of the WPH and have therefore included buffers and the use of orientation to address potential visual impacts. The following measures therefore concentrate on existing properties such as those within the Green Wedge to the west of the WPH and those within the Cranbourne-Frankston Road area.

At a community level, views of the cross roads and on/off ramps from within the Green Wedge to the west and south of the WPH, and views from residences along Cranbourne-Frankston Road would become substantially altered. The effect on individual receptors is dependent on their distance to the altered landscape, and the scale of immediate changes.

The following design measures recommended by the Consultant will be addressed by VicRoads in the detailed design phase, with particular attention being given to landscaping:

1. Vegetation for screening unwanted views of the project

a) Where screening is required, a layered approach to vegetation planting is recommended as shown in Figure 5.7.

b) Species selected should be endemic to the region to maintain biodiversity, reflect the character of remnant vegetation and improve connectivity between remaining vegetation stands.

c) The road model and right-of-way are based on 1:4 slopes where the embankment is under 3 metres in height and 1:2 slopes where the embankment is higher than 3 metres in height. The proposed planting scheme can be established on 1:4 slopes. It would be preferable to ensure any slopes identified for planting be no steeper than 1:3.

d) Planting arrangements for understory plants on embankments and canopy trees to toe of slopes should be employed at the following locations:

- Along the northern and southern sides of Cranbourne-Frankston Road, both east and west of WPH.
- As necessary along slopes of additional cross roads (Glasscocks, Thompsons, Wedge, Hall and Ballarto Roads) west of WPH.

- While the Lynbrook/Lyndhurst and Cranbourne West plans have already designed around a vegetated buffer, the understorey/canopy scheme described here would be recommended for those locations to effectively screen views of WPH from nearby sensitive receptors.

e) Where WPH is shifted from its current alignment, there will be a need to establish vegetation on land which is currently covered in pavement. For vegetation to establish properly, it is essential that existing pavement and sub pavements be removed and soils treated in readiness for planting.

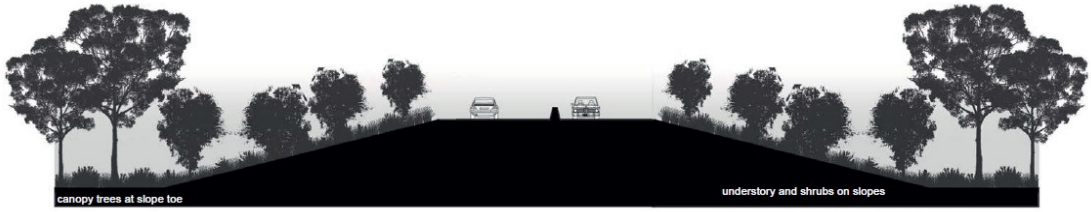


Figure 5.7 Screen effect of vegetation planting

2. Protection and replacement of vegetation

Where the WPH project requires the removal of trees or remnant vegetation, these should be replaced with similar vegetation types, to cover a similar area and be replaced within the local vicinity of the removed vegetation.

3. Creating community identity within the project's design

The structuring of the landscape or inclusion of sculptural elements can provide a broader urban design opportunity in the creation of a portal or gateway around the new road. This could be considered in areas such as: a) underpasses/bridges by way of planting and materials used, b) at the northern extent of the project where a sculptural element may be appropriate or c) at the Cranbourne-Frankston Road area where an understated feature such as a stand of trees may be more appropriate.

4. Vegetation survey

A vegetation survey of the wider area would assist in informing the detailed design process to ensure planting that occurs along the project is in line with the surroundings.

5. Access changes

A number of properties have their direct access to the WPH removed and replaced with new service roads. Where this would alter the direction from which a property is accessed, landscaping consideration should be given to screen these new views.

6. General design principles and construction methods

a. A streamlined design for bridges and other structures to minimise their apparent bulk.

b. Landscaping should be self-sustaining and comprised largely of indigenous species.

c. Frequency of light poles should be minimised.

d. Signage and supporting gantries should be consolidated wherever possible.

e. Maintain as small a construction footprint as possible.

f. Strip and stockpile topsoil prior to excavation to be reinstated in disturbed areas after construction

g. Minimise impacts of construction to local residents

h. Establish vegetated buffers early in construction to provide visual screening.

Conclusions

The project is broadly compatible with applicable visual objectives in policies and plans covering the area. Incorporating mitigation measures ensures the project is better integrated into the local landscape and appreciation of local amenity and character are maintained.

Rezoning of portions of land (to road zone following project construction) would result in impacts resulting from the removal of vegetation as a result of the larger footprint required for the project or the conversion of an area of rural character. The areas that would be affected are small and it is possible that careful design could minimise effects to these areas of vegetation. Therefore the result of rezoning sections of land is not significant.

The project affords positive benefits such as opportunities for formal and informal gateways. Additionally the impressive views that will be available across the rural landscape will benefit residents and motorists and additional vegetation plantings will improve amenity.

The project is not expected to result in undue overlooking and overshadowing effects, or disruption to views from public lands.

The visual changes that will result from the WPH project need to be considered in light of what currently exists at the site, and consequently, with mitigation incorporated, the project is anticipated to result in a neutral or potentially positive change on the landscape.

Overall, the visual effects of the proposed WPH project would be less than significant with the proposed mitigation included.

Conclusions – Landscape considerations and the visual environment

The project represents a large infrastructure change in the local environment. This change, in an increasingly urbanised area, is not an uncommon feature nor would it be out of place or particularly memorable as a feature on the landscape.

In many instances landscape measures can be used to ameliorate visual impacts. The planned communities within the project vicinity are aware of the important arterial role of the Western Port Highway and have therefore included buffers and the use of orientation to address potential visual impacts.

The mitigation recommended is largely related to detailed design and landscape treatments. VicRoads will accommodate these recommendations, where possible, during the detailed design of the project prior to construction.

Overall, the visual effects of the proposed WPH project would be less than significant with the proposed mitigation included.

5.9 Cultural heritage

The contents of this section are summarised and in some cases directly transcribed from the report "Western Port Highway Upgrade Cultural Heritage Assessment", Andrew Long & Associates, March 2014, which is included in Appendix I.

Assessments of cultural heritage in the project area were undertaken in 2010 and 2014 by Andrew Long & Associates for VicRoads to inform the planning study for the Western Port Highway (North) Upgrade. The report considers the likely impact of the proposed construction on Aboriginal cultural heritage and non-Aboriginal heritage based on a desktop and standard assessment. The project area included the whole of the existing and proposed road reservation, including the land for the freeway and possible future railway line.

Cultural Heritage Values in the Study Area

A total of 14 registered Aboriginal cultural heritage places and five non-Aboriginal cultural heritage sites are located within the project area. These sites consist of: three scarred trees of moderate scientific significance, nine artefact scatters of moderate scientific significance and two low density artefact scatters of low scientific significance.

There are also a total of 152 registered Aboriginal cultural heritage places in the geographic region.

Aside from these registered Aboriginal places the geographic area also lies within several known areas of cultural heritage sensitivity including:

- The Cranbourne sand sheet
- The Koo Wee Rup Plain
- Dunes

On the basis of the nature of the known archaeological record in the geographic area and the landforms present in the activity area, it has been determined that there is moderate to high potential for additional Aboriginal cultural heritage places to occur within the project area. Any additional Aboriginal cultural heritage places identified are likely to be artefact scatters.

There are a total of five non-Aboriginal cultural heritage sites within the project area. These historic sites comprise one historic property listed on the Heritage Inventory, one Heritage Overlay listed on the City of Casey Planning Scheme, and three Heritage Victoria D-listed historic sites.

The sites identified in the project area are discussed below.

Aboriginal cultural heritage sites

The impact of the current project is extensive and will possibly harm all of the 14 registered sites of Aboriginal cultural heritage as detailed below. The actual impact to sites will only be available when detailed design has been undertaken.

Lyndhurst 1 (7921-0182)

This site is an artefact scatter located on the eastern side of Dandenong-Hastings Road, south east of Bayliss Road. It is of moderate significance.

Dandenong 2 (7921-0215)

This site is a scarred tree located on the western side of Western Port Highway, south of Thompsons Road. It is of moderate significance.

Eclipse Park 2 (7921-0564)

This site is an artefact scatter located on the eastern side of Western Port Highway south of Aylmer Road. It is of moderate significance.

Hall Road 01 (7921-0620)

This site is an artefact scatter located near Hall Road and the Western Port Highway. It is of moderate significance.

Hall Road 2 (7921-0621)

This site is an artefact scatter located near Hall Road and the Western Port Highway. It is of moderate significance.

Hall Road 3 (7921-0622)

This site is an artefact scatter located near Hall Road and the Western Port Highway. It is of moderate significance.

Hall Road 4 (7921-0623)

This site is an artefact scatter located near Hall Road and the Western Port Highway. It is of moderate significance.

Western Port Highway 2 (7921-0824)

This site is an artefact scatter on the western side of the Western Port Highway, north west of Browns Road. It is of moderate significance.

Western Port Highway 3 (7921-0825)

This site is an artefact scatter on the western side of the Western Port Highway, south west of Browns Road. This site is of moderate significance.

CW-4 (7921-0849)

This site is a scarred tree located on the eastern side of Western Port Highway, north of Hall Road. This site is of moderate significance.

CW-11 (7921-0856)

This site is an artefact scatter located near Hall Road and the Western Port Highway. It is of moderate significance.

Thompsons Road scarred tree 3 (7921-1166)

This site is a scarred tree on the western side of Western Port Highway, south of Thompsons Road. It is of moderate significance.

Cranbourne west 116 (7921-1479)

This site is a low density artefact distribution located on the eastern side of Western Port Highway, south of Ballarto Road. It is of low significance.

335 Dandenong-Hastings Road 1 (7921-1511)

This site is a low density artefact distribution located on low sandy rises on the western side of Dandenong-Hastings Road, south of Glasscocks Road in Lyndhurst. It is of low significance.

Non-Aboriginal Sites

Valentine Park (H7921-0049)

Valentine Park is located at 295 Dandenong-Hastings Road, Lyndhurst. It was granted to Alexander Norquay in the early 1850's. The site, which has also been known as 'Lavender Park', consists of a tree lined entrance drive to an Edwardian weatherboard house with cast-iron verandah and three corbelled, red brick chimneys. The gardens include fruit trees in front of the house and a large fig tree to the north. An old domed brick well is located at the rear of the house, along with a large peppercorn tree. A long timber and corrugated iron outbuilding is situated north east of the house, where a pine-lined track leads to a large dam. This property is listed on the Victorian Heritage Inventory.

Former Lyndhurst Primary School No. 732 (HO22)

This property is located at 310 Dandenong-Hastings Road, Lyndhurst. This site is situated on the eastern side of Western Port Highway south of Glasscocks Road. It was constructed in 1888 to replace the earlier weatherboard school building at the same site. The brick school building is of local historic, social and aesthetic significance to the City of Casey. This site is covered by a heritage overlay in the Casey Planning Scheme.

Cranbourne Swamp House (D7921-0071)

This property is an extant farm complex to the west of Western Port Highway and on the north side of Cranbourne-Frankston Road. This property is a Heritage Victoria D-listed site.

Dandenong 1 - Surveyor's Blaze (D7921-0026)

This site is located at 180 Dandenong-Hastings Road, Lyndhurst and is represented by a River Red Gum tree with a scar made by bark removal and marked with the letter "S" and the numerals "VII". This site is a Heritage Victoria D-listed site.

Bald Hill artefact scatter (D7921-0077)

This historic site is represented by surface and possibly sub-surface scatter of historic artefacts. The scant information available on the Heritage Victoria Register indicates that Bald Hill was once the location of several structures. According to the Heritage Victoria Register, only the 1863 school building remains at Bald Hill. The Bald Hill artefacts are likely to reflect the only other remains of occupation at this area. The site is a Heritage Victoria D-listed site.

Pre-construction actions

A Cultural Heritage Management Plan (CHMP) needs to be prepared for the project prior to construction. This plan will be the primary management tool for Aboriginal cultural heritage. Due to the probability that additional Aboriginal cultural heritage could be present within the area further archaeological investigation will be undertaken as part of the preparation of the CHMP. Subsurface testing will also be undertaken to assist in identifying the nature, extent and significance of potential Aboriginal cultural heritage. VicRoads will seek approval for the CHMP from the Registered Aboriginal Party (RAP) or parties and Aboriginal Affairs Victoria (AAV).

Prior to construction VicRoads will apply for a consent to disturb or destroy from Heritage Victoria for site H7921-0049, Valentine Park. It is noted that this site is affected by an existing PAO, not a proposed PAO, for the project.

The three sites D-listed on the Victorian Heritage Inventory, D7921-0026, D7921-0071 and D7921-0077 are not provided any protection. Sites are given a D-listing if that do not have any apparent archaeological component. Works affecting D-listed properties have no requirement for consents to be given. However, all archaeological materials are protected under the terms of the Heritage Act 1995, and should any archaeological materials be exposed at the location of D-listed sites Heritage Victoria should be notified and a consent process initiated.

Site HO22 is unlikely to be affected by the project works. Should any impact be required to accommodate the project, VicRoads will apply for a planning permit from the City of Casey prior to construction.

Conclusions – Cultural heritage

VicRoads has completed Cultural Heritage Assessments for the project area and identified a number of sites of Cultural significance, both Aboriginal and non-Aboriginal. Most of these sites are expected to be impacted by the project works, except possibly site HO22 south of Glasscocks Road.

VicRoads will continue to refine the design during the detailed design phase to minimise impacts and apply for the necessary permits required prior to construction, and will prepare a Cultural Heritage Management Plan.

5.10 Traffic noise

The contents of this section are summarised from the report "Western Port Highway (North) Upgrade, Traffic Noise Impact Assessment", AECOM, December 2013 which is included in Appendix J.

Introduction

As discussed in Section 4.5, the Minister for Planning has determined that an Environment Effects Statement is not required for the project subject to the condition that:

The proponent is to prepare a noise impact assessment report that:

i. Identifies the noise objectives proposed to be applied to the project and provides a clear justification for these;

ii. Provide predictions of noise levels at representative sensitive receptors likely to result from the project, relative to the existing noise environment;

iii. Identifies suitable measures that are proposed to mitigate significant noise effects on existing sensitive receptors;

iv. Provides an assessment of the likely residual noise effects on existing sensitive receptors following implementation of proposed noise mitigation measures.

The report is to be prepared to the satisfaction of the Secretary of the Department of Planning and Community Development and released as part of public notification processes under relevant procedures for statutory approval.

Consistent with the above condition, AECOM has undertaken a traffic noise impact assessment for the project. The report was prepared in consultation with the Department of Transport, Planning and Local Infrastructure (formerly known in part as the Department of Planning and Community Development) and was approved for release by the department in its letter dated 16 June 2014.

The assessment did not consider the noise impact of any future railway line, as this will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

Noise Policies

VicRoads' Traffic Noise Reduction Policy 2005 provides the noise objectives to be applied to the project. VicRoads has had a dedicated traffic noise policy since 1989, which in its various forms has been used to determine noise attenuation requirements for major road projects developed over the last 25 years.

There are no other State policies that address the management of traffic noise. The Environment Protection Authority does not have a policy specifically addressing traffic noise and recognises that VicRoads is the key agency responsible for managing traffic noise.

Clause 13.04.1 of the State Planning Policy Framework includes the objective *"to assist the control of noise effects on sensitive land uses"*. It indicates that planning must consider *VicRoads' Guide to Reduction of Traffic Noise 2003*. The purpose of the guide is to provide noise information to builders, designers and residents, and it indicates that *"VicRoads will not ameliorate traffic noise where new buildings or subdivisions are built next to an existing or future road controlled by VicRoads"*.

The guide is not used by VicRoads to determine its response to traffic noise impacts, as it is not a comprehensive document in this regard. *VicRoads' Traffic Noise Reduction Policy 2005* and associated *Road Design Note, Interpretation and application of VicRoads Traffic Noise Reduction Policy 2005* are the applicable documents used by VicRoads.

VicRoads Traffic Noise Reduction Policy 2005 specifies the following requirements in relation to development of new or upgraded roads:

- Traffic noise levels to residential dwellings and other noise sensitive uses will be limited to specified levels if arterial roads or freeways are built on new alignments.

- Traffic noise levels to residential dwellings and other noise sensitive uses will be limited to specified levels if existing arterial roads or freeways are widened by two or more lanes and buildings previously protected from traffic noise are exposed by removal of buildings required for widening.

- The above requirements do not apply to new buildings or subdivisions abutting any existing road under the control of VicRoads or abutting any road zone shown in any planning scheme for a new road or road widening. In such cases expenditure of public monies on noise attenuation is not considered to be justified.

VicRoads' Road Design Note, Interpretation and application of VicRoads Traffic Noise Reduction Policy 2005 states that *"a widening or duplication or an existing freeway or arterial road is not a "new alignment"*. Consequently the first noise attenuation trigger does not apply to the project.

Whilst the project involves widening by two or more lanes and the removal of buildings in isolated locations, it does not expose buildings that were previously protected from traffic noise. Consequently the second noise attenuation traffic does not apply.

The project does not trigger a requirement for noise attenuation measures to be implemented according to VicRoads' policy.

It is noted that the existing and proposed urban residential development along the east side of Western Port Highway between Northey Road and Cranbourne-Frankston Road occurred or is occurring on the basis of Western Port Highway being a major arterial road or freeway. Property owners should have been aware of the traffic generated by the Highway and reasonably expected an increase in traffic volumes and noise over time. Consistent with *VicRoads Traffic Noise Reduction Policy 2005* and *VicRoads' Guide to Reduction of Traffic Noise 2003,* such properties are not eligible for noise attenuation.

Noise Modelling

AECOM undertook noise measurements at four representative dwellings in 2012 to understand current noise levels. The measurements indicated average noise levels of between 63 and 70 dB(A) $L_{A10(18\ hour)}$.

AECOM undertook traffic noise modelling using the CoRTN method to estimate future traffic noise levels in 2031 associated with the existing road (do nothing scenario) and upgraded road (with project scenario). The modelling was based on traffic volume forecasts for 2031 provided by VicRoads (refer Section 5.1 of this report) and conservatively assumed that the pavement type for the "do nothing" and "with project" scenarios would be the same. The model was calibrated using the noise measurements obtained in 2012.

The model considered traffic noise levels at 191 residences adjacent to the Western Port Highway in 2031, which is the assumed year of project opening for assessment purposes. The traffic noise levels for the "do nothing" scenario ranged between 39 and 71 dB(A) $L_{A10(18\ hour)}$, with the majority of these at 63 dB(A) $L_{A10(18\ hour)}$ or greater. The traffic noise levels for the "with project" scenario ranged between 43 and 75 dB(A) $L_{A10(18\ hour)}$.

The "with project" scenario assumed no noise attenuation consistent with *VicRoads Traffic Noise Reduction Policy 2005*. A "with project and with noise attenuation" scenario was also modelled to determine the potential benefit of noise attenuation barriers. The assessment was based on limiting the noise level to 63 dB(A) $L_{A10(18\ hour)}$ for residences with a pre-project noise level of 63 dB(A) $L_{A10(18\ hour)}$ or less, and limiting the noise level increase to no more than 2 dB(A) $L_{A10(18\ hour)}$ for other residences.

The results of the noise modelling at the 191 residences are summarised in Tables 5.4 and 5.5. It is noted that 149 of 191 residences are in the urban residential area east of Western Port Highway between Northey Road and Cranbourne-Frankston Road.

Table 5.4 Modelled noise levels

Noise level dB(A) $L_{A10(18\ hour)}$	Number of residences experiencing noise level			
	2012	2031		
	Without project (existing highway)		With project and without noise attenuation	With project and with noise attenuation
39 to 62	91	80	44	80
63 to 67	51	48	66	81
68 to 75	49	63	81	30

As shown in Table 5.5, the project is expected to cause no change or a decrease in noise level at 18 residences. An increase in noise level of 0 to 3 dB(A) $L_{A10(18\ hour)}$ is expected at 99 residences and an increase in noise level of 4 to 9 dB(A) $L_{A10(18\ hour)}$ is expected at 74 residences.

Table 5.5 Modelled noise level changes due to project - 2031

Noise level dB(A) $L_{A10(18\ hour)}$	Number of residences experiencing noise level change	
	Without noise attenuation	With noise attenuation
-7 to -9	0	14
-4 to -6	3	23
-3 to 0	15	73
+1 to +3	99	49
+4 to +6	50	29
+7 to +9	24	3

A change of noise level of 0 to 3 dB(A) $L_{A10(18\ hour)}$ is not perceptible. Changes of 4 to 5 dB(A) $L_{A10(18\ hour)}$ are perceptible and changes of 6 dB(A) $L_{A10(18\ hour)}$ or more are clearly noticeable. A change of 10 dB(A) $L_{A10(18\ hour)}$ represents a doubling of the apparent loudness of the traffic.

As shown in Table 5.5, noise attenuation barriers (which are not proposed as part of the project) limit the noise level increases. In such a case no change or a decrease in noise level is expected at 110 residences. An increase in noise level of 0 to 3 dB(A) $L_{A10(18\ hour)}$ is expected at 49 residences and an increase in noise level of 4 to 9 dB(A) $L_{A10(18\ hour)}$ is expected at 32 residences. The more significant increases are associated with residences with pre-project noise levels of 63 dB(A) $L_{A10(18\ hour)}$ or less.

The assessment did not consider the difference between “with project” and “do minimal” scenarios. A “‘do minimal” road upgrade scenario could be undertaken within the existing road reserve, and would result in additional road capacity, traffic volumes and traffic noise. Lower level noise increases would have been observed if the project has been assessed against a “do minimal” rather than “do nothing” scenario.

VicRoads proposes to mitigate noise level impacts in accordance with traffic noise reduction policies applicable at the time of construction of the project. VicRoads’ current policy indicates that noise attenuation measures are not required, however, any future policy may have different requirements. The proposed reservation for the project includes sufficient space for noise attenuation barriers to be provided, if required by any future policy.

Conclusions – Traffic noise

VicRoads has undertaken a traffic noise impact assessment consistent with the requirements of the Minister for Planning and the Department of Transport, Planning and Local Infrastructure.

VicRoads Traffic Noise Reduction Policy 2005 is the only applicable State policy for determining how the impacts of traffic noise from road projects should be managed. The policy indicates that the project is not eligible for noise attenuation.

Noise modelling for 191 residences near the Western Port Highway indicates that the project is expected to cause no change or a decrease in noise level at 18 residences. An increase in noise level of 0 to 3 dB(A) $L_{A10(18\ hour),}$ which is not perceptible, is expected at 99 residences and an increase in noise level of 4 to 9 dB(A) $L_{A10(18\ hour)}$ is expected at 74 residences.

VicRoads proposes to mitigate noise level impacts in accordance with traffic noise reduction policies applicable at the time of construction of the project. The proposed reservation for the project includes sufficient space for noise attenuation barriers to be provided, if required by any future policy.

5.11 Air quality

The contents of this section are summarised from the report "Western Port Highway (North) Upgrade, Air Quality Impact Assessment", AECOM, July 2014 which is included in Appendix K.

An air quality impact assessment of the project was undertaken by AECOM, consistent with the *Environment Protection Authority's (EPA) State Environment Protection Policy, Air Quality Management*.

The assessment did not consider the air quality impact of any future railway line, as this will be the subject of separate future assessment and approval processes associated with the expansion of the Port of Hastings.

The EPA Near-road Model Ausroads was used to estimate near-road air pollutant concentration levels for two indicators, being nitrogen dioxide and PM_{10} (particulate matter), in the assumed year of project opening for assessment purposes (ie. 2031). These two indicators were chosen because they represent the major motor vehicle emission pollutants and there is a large database of existing concentration levels available.

The estimated levels were compared against EPA intervention levels of 270ug/m^3 for nitrogen dioxide and 60ug/m^3 for PM_{10}. The EPA requires further assessments and potentially project design changes and mitigation measures to be undertaken if the intervention levels are exceeded due to the project.

The assessment was based on traffic volume forecasts for 2031 provided by VicRoads (refer Section 5.1 of this report) and various conservative assumptions, including the use of vehicle emission factors for 2021, which are likely to be higher than may apply to vehicles in 2031 due to ongoing improvements in motor vehicles.

The model estimated the levels of nitrogen dioxide and PM_{10} at several residences along and near the Western Port Highway for existing conditions (2012) and post project conditions (2031). The model estimated maximum levels of 110ug/m^3 for nitrogen dioxide and 34ug/m^3 for PM_{10} in 2012, and maximum levels of 119ug/m^3 for nitrogen dioxide and 32ug/m^3 for PM_{10} in 2031.

The assessment concluded that the project is not expected to result in near-road air pollutant concentration levels in excess of EPA specified intervention levels. No specific mitigation measures in relation to air quality are therefore necessary.

Conclusions – Air quality

The project is not expected to result in near-road air pollutant concentration levels in excess of EPA specified intervention levels.

No specific mitigation measures in relation to air quality are considered necessary.

5.12 Stormwater management and drainage

The contents of this section are summarised from the report "Western Port Highway Upgrade – South Gippsland Highway to Cranbourne Frankston Road Concept Design and Engineering Considerations", AECOM, June 2014 which is included in Appendix A.

A preliminary study of waterways and drainage considerations was undertaken by AECOM for the proposed Western Port Highway (North) Upgrade to identify any constraints or issues of potential significance to the project.

The study area is relatively flat with a general slope in a westerly direction towards Port Phillip Bay. There are no major watercourses along the length of the proposed project. There are a few local drainage crossings of WPH, including the following:

- Unnamed crossing north of the railway line and connecting to Lynbrook wetlands.
- Cranbourne Outfall Drain crossing north of Thompsons Road and connecting to retarding basin for Lyndhurst residential area.
- Monahans Road drainage scheme crossing north of Wedge Road.
- Rodds Drain crossing south of Hall Road.
- Eastern Contour Drain crossing north of Ballarto Road and connecting to a Melbourne Water retarding basin.

Stormwater runoff from the existing Western Port Highway is generally collected via open channels and directed to the nearest watercourses. The stormwater drains to the Eastern Contour Drain, which in turn drains to Eumemmerring Creek. This creek flows into the Patterson River, which ultimately flows into Port Phillip Bay.

The project is expected to have a minor impact on waterways. The additional stormwater runoff generated by the upgraded roads would be collected and treated in accordance with Water Sensitive Road Design Principles, consistent with relevant standards and authority requirements. The gentle longitudinal grades along the project alignment suggest that grass swale drains will provide storage as well as sufficient treatment for controlled discharge prior to outlet to existing drainage paths. Existing drainage crossings would be extended and/or upgraded as necessary as part of construction of the project.

There are several small dams on private properties along Western Port Highway, and a Melbourne Water retarding basin north of Ballarto Road. The project impacts this retarding basin, and discussions with Melbourne Water indicate that there is sufficient land available within the property to modify the basin to retain its existing capacity.

It is envisaged that the potential impact of the project on the water environment will be minimal and can be managed with appropriate detailed design and construction controls.

Conclusions – Stormwater management and drainage

The impact of the project on water environments is expected to be minor and manageable.

There are no major watercourses and a few local drainage crossings along the length of the proposed project. The additional stormwater runoff generated by the upgraded roads would be collected and treated in accordance with Water Sensitive Road Design Principles and directed to the nearest watercourse. Existing drainage crossings would be extended and/or upgraded as necessary.

The project impacts a Melbourne Water retarding basin north of Ballarto Road. There is sufficient land available within the property to modify the basin to retain its existing capacity.

5.13 Geotechnical and groundwater issues

The contents of this section are summarised from the report "Western Port Highway Upgrade – South Gippsland Highway to Cranbourne Frankston Road, Concept Design and Engineering Considerations", AECOM, June 2014 which is included in Appendix A.

A desktop study of geotechnical conditions was undertaken by AECOM for the proposed Western Port Highway (North) Upgrade to identify any constraints or issues of potential significance to the project.

The Geological Survey of Victoria 1:63,360 Series Map Cranbourne sheet indicates that the natural near subsurface material in the study area typically consists of one of the following:

- Miocene age Baxter Sandstone Formation (comprising ferruginous sandstone, sand, sandy clay with occasional gravel).
- Quaternary aged peaty clay and swamp deposits.
- Quaternary aged siliceous sand dunes or sheets.
- Tertiary aged Older Volcanics (comprising basalt, tuff and volcanic clay).
- Silurian aged sandstone and other sedimentary rocks.

The underlying material in the study area typically consists of Tertiary aged Older Volcanics or Silurian aged sandstone and other sedimentary rocks.

The above geology is consistent with information obtained from available borehole and test pit logs.

Limited groundwater monitoring data is available, with two standpipes located near Thompsons Road and 2.2km east of Western Port Highway indicating water levels at 2.8m to 3.8m depth and two bores located near Western Port Highway and 0.7km north of Glasscocks Road indicating water levels at 10m to 11m depth.

The majority of the project is at grade or on low embankment and would be unlikely to interact with the regional groundwater table. However, Western Port Highway is proposed to be in approximately 3m of cut around the Glasscocks Road interchange and further investigation would be required (as part of detailed design) to determine whether groundwater would be encountered at this location. If groundwater is encountered then appropriate measures would be incorporated into the design to control groundwater.

The study area is characterised by flat to undulating topography, and therefore the presence of existing land instability is unlikely. Cut and fill slopes would need to be designed and constructed appropriately to address any issues relating to land stability.

Available references suggest a low potential for the presence of acid sulphate soils, which would need to be confirmed by site investigation and testing prior to construction.

Erodible soils may be present, with site investigation and testing required prior to construction to inform the design and erosion management methods.

The design includes several bridge structures to provide grade separation between Western Port Highway and the roads and railway line crossing the Highway. It is anticipated that bridge structures would be supported by piled foundations embedded into the underlying soil or rock. Site specific geotechnical investigation would be required prior to construction to inform design of the bridge foundations and other features such as earthworks and pavements.

Based on the desktop study, the impact of the project on geological environments is expected to be minor and manageable. VicRoads would undertake site investigations and testing, and design and construct the project to minimise geological impacts.

Conclusions – Geotechnical and groundwater

Geotechnical investigations for the proposed Western Port Highway (North) Upgrade indicate that there is low potential for land instability and acid sulphate soils. Erodible soils may be present, with site investigation and testing required prior to construction to inform the design and erosion management methods.

The majority of the project is at grade or on low embankment and would be unlikely to interact with the regional groundwater table. However, Western Port Highway is proposed to be in approximately 3m of cut around the Glasscocks Road interchange and further investigation would be required to determine whether groundwater would be encountered at this location.

Site specific geotechnical investigation would also be required prior to construction to inform design of the bridge foundations, earthworks and pavements.

The impact of the project on geological environments is expected to be minor and manageable.

5.14 Construction issues

As noted elsewhere, this report supports the amendment of planning schemes and the introduction of a public acquisition overlay (PAO). Planning permits and other approvals for project works will be sought at a later stage when funding is approved and detailed designs are prepared.

Therefore the impacts of construction are more appropriately a matter for consideration when approval is being sought for the project works. However, reference is made to the expected array of construction impacts for context purposes.

Construction activity produces a range of potential environmental issues. These may include:

- Traffic
- Air quality, including dust
- Noise
- Native vegetation
- Cultural heritage
- Greenhouse
- Natural resource use
- Groundwater management
- Water quality

Traffic management for the project will be in accordance with VicRoads Project Management Guidelines – Project Delivery which takes into consideration worksite safety and traffic access issues. VicRoads engages pre-qualified contractors and traffic management plans are audited for road safety.

Detailed traffic management plans will be provided by the contractor(s) after award of the contract and prior to any works commencing. The contractor(s) will be required to prepare, update and maintain traffic management plans for all phases of the works in liaison with VicRoads, Council, public utilities, emergency services and the abutting property owners. This will be an important element of the Project Communication Plan.

Traffic management and property access arrangements will be communicated to the general public via local newspapers and advisory signage, and by direct discussion of detailed arrangements with the abutting owners.

All other issues will be managed according to conditions set down in planning permits and other consents for issues such as native vegetation, cultural heritage and ground and surface waters and in accordance with relevant government policies or requirements for issues such as air, noise and natural resource use.

Environmental Management will be in accordance with relevant VicRoads policies and guidelines. VicRoads will prepare a Project Environmental Protection Strategy as part of the preconstruction activities and will require its contractor(s) to prepare Environmental Management Plans to ensure that all relevant environmental issues are addressed.

6 Consultation

Over the period of development of conceptual plans, investigations and proposed reservation for the Western Port Highway (North) Upgrade, VicRoads has consulted a range of stakeholders and interested parties as discussed below. A comprehensive consultation program will be developed and implemented during the detailed design and construction phases of the project to investigate project impacts and develop appropriate mitigating works.

Land owners

Individual land owners and land occupiers have been consulted where it was apparent that the proposed works could have a direct impact on the use of land, including impacts associated with land acquisition and property access changes.

Approximately 100 landowners were invited to participate in the social impact assessment during May 2010. These same landowners together with all landowners within approximately 1.6km of the Western Port Highway were invited to attend drop-in sessions in November 2011 to obtain further information about the project. Additional and in some case extensive contact has been made with landowners with a keen interest in the project, including owners developing land in Dandenong South, Cranbourne West and Cranbourne South.

Issues raised by land owners have been taken into consideration in the development of the proposed road reservation and conceptual design.

Planning Scheme Amendment - Cranbourne West Precinct Structure Plan

VicRoads participated in the process of introduction of the Cranbourne West Precinct Structure Plan (PSP) including the public submission and panel process for Amendment No C102 to the Casey Planning Scheme. Through this process an investigation area for the project between Thompsons Road and Ballarto Road, including proposed interchanges at Wedge Road and Hall Road and overpass without ramps at Ballarto Road, was included in the PSP. All interested stakeholders in the area of the PSP were involved in this process.

Councils

Regular contact has been maintained with the responsible municipal councils for the project area. They are the cities of Casey, Frankston and Greater Dandenong.

Government agencies and utility corporations

Relevant agencies have also been consulted including:

- Department of Transport, Planning and Local Infrastructure
- Department of Environment and Primary Industries
- Melbourne Water
- South East Water

Information available to community and stakeholders

Over the period of project planning VicRoads has maintained summary information and contact details on its website at: www.vicroads.vic.gov.au/westernport.

7 Ballarto Road interchange options

7.1 Introduction

As discussed in Section 2.4.3, the Western Port Highway (North) Upgrade project includes the closure of access between Western Port Highway and Ballarto Road. An overpass of the Highway would be provided along the Ballarto Road alignment to connect land uses to the east and west.

Frankston City Council, which is responsible for land to the west of Western Port Highway at this location, objects to VicRoads' proposed treatment of Ballarto Road and has requested a full movement interchange. This Council has advised its intention to make a submission about the planning scheme amendments in this regard, with this submission expected to be subject to consideration at the panel hearing for the amendments.

VicRoads has assessed northerly movement and full movement interchange options as discussed below, for the purposes of consulting with property owners and occupiers that may be affected by Frankston City Council's proposal and thereby enabling these parties to make their own submissions in this regard.

7.2 VicRoads Preferred Option

VicRoads' Transport Infrastructure Assessment (July 2014) in Appendix B assessed various options for Ballarto Road, including options with and without interchange ramps.

The report considered the following factors in determining the preferred option:

- Future function of Ballarto Road within the road network.
- Future traffic volumes along Ballarto Road and any interchange ramps.
- Proximity of Ballarto Road to other interchanges.
- Existing and proposed future land uses along Ballarto Road.
- Traffic operation and safety needs along Western Port Highway.
- Traffic operation, safety and access needs along Ballarto Road.
- Connectivity of Ballarto Road to other roads.
- Availability of adequate alternative routes.
- Social, environmental and economic benefits and impacts of options.

The key conclusions of the report were as follows:

- Ballarto Road is a proposed future secondary arterial, forecast to carry 10,000 to 20,000 veh/day in the long term. It is far more important for interchanges to be provided at the nearby future primary arterial roads of Hall Road and Cranbourne-Frankston Road than Ballarto Road.

- The majority of traffic currently using the Western Port Highway/Ballarto Road roundabout travels to and from the north, consistent with the far greater density and attractiveness of land uses to the north than the south.

- Diagonal southerly ramps are not feasible at Ballarto Road due to the high safety risk associated with the close proximity to the two lane northerly ramps at Cranbourne-Frankston Road. Southerly movements could only be accommodated by loop ramps located north of Ballarto Road.

- Any interchange ramps at Ballarto Road would not be consistent with current statutory policy as described in the *Cranbourne West Precinct Structure Plan (January 2010)* and would require far more land than allowed in the Structure Plan for the treatment of Ballarto Road, reducing the available developable area.

- Any interchange ramps at Ballarto Road would cause additional disturbance to freeway through traffic, which is undesirable considering the primary purpose of a freeway relates to mobility rather than access and in particular the safe and efficient movement of regional and inter-regional through traffic (including people and freight).

- Traffic modelling shows that any interchange ramps at Ballarto Road would serve a local function, and provide negligible benefit to regional uses such as the Frankston Activity Centre.

- The land immediately west of Western Port Highway is generally zoned green wedge or rural conservation. There are no proposals to rezone this land in the foreseeable future, and development of this land and the urban land further west is likely to be limited. Hence there are no compelling future land use and development proposals that may dictate the need for interchange ramps at Ballarto Road.

- The land east of Ballarto Road is zoned for urban growth and proposed to be redeveloped for residential uses in the short to medium term. Structure plans for this area have been prepared on the basis of there being no interchange ramps at Ballarto Road. This is consistent with Casey City Council's preference for Ballarto Road east of Western Port Highway to be a two lane, tree-lined boulevard used by local traffic, rather than an arterial road.

- Southerly movement ramps at Ballarto Road would serve a local function for residential land uses and attract a low volume, which does not justify the inclusion of such ramps.

- Southerly movement ramps are not required to address the accessibility needs of the local area, as convenient and appropriate alternative routes are available via Potts Road and other roads. Potts Road is a collector road and forecast to carry a relatively low volume in the long term, which is consistent with its function and compatible with its abutting residential development.

- Northerly ramps at Ballarto Road would accommodate a moderate volume, which in itself does not justify the inclusion of such ramps.

- Northerly ramps would largely serve local residential areas along and south of Ballarto Road, rather than areas of economic significance or major employment, and hence the economic benefits of the ramps may not outweigh the cost of the ramps.

- Northerly ramps are not required to address the accessibility needs of the local area, as convenient and appropriate alternative routes are available to connect Ballarto Road traffic with the proposed interchange on Western Port Highway at Hall Road including:

  - Dandenong-Frankston Road which is a primary arterial road and expected to attract the majority of the diverted traffic based on Frankston City Council's origin and destination survey.

  - McCormicks Road which is classified by Frankston City Council as a secondary arterial road and should have sufficient midblock capacity to accommodate forecast volumes in the long term.

- Traffic modelling undertaken in 2011 and 2012 shows that there should be negligible increase in volume on the alternative routes due to the closure of access between Western Port Highway and Ballarto Road, as any increase in volume due to diverted traffic should be offset by the reduction in volume due to the enhanced capacity along Western Port Highway.

- Although local trucks generated by the quarry in Harold Road may be diverted to McCormicks Road, the use of this road by local trucks is consistent with its classification as a secondary arterial road.

- Northerly ramps are not required to address any traffic operation or safety concerns on the road network. The high capacity interchanges proposed on Western Port Highway at Hall Road and Cranbourne-Frankston Road should readily accommodate future traffic demands without the need for any interchange ramps at Ballarto Road. Intersection upgrades can be undertaken on the alternative routes as necessary to accommodate traffic diverted by the closure of access between Western Port Highway and Ballarto Road.

Based on the above, southerly movement ramps are clearly not justified at Ballarto Road. The benefits of the ramps to local traffic and land uses are very limited and far less than the negative impacts of the ramps, including the cost of providing the ramps, the impact to properties affected by land acquisition, and the disturbance of the ramps to freeway traffic.

There is no compelling need for northerly ramps at Ballarto Road. Whilst the ramps would provide some benefit to local land uses and reduce volumes on McCormicks Road, the ramps would largely serve residential rather than employment uses and hence generate limited economic benefit. The limited benefit of such ramps would not likely outweigh the cost of providing the ramps, the adverse impact to properties affected by land acquisition, and the disturbance of the ramps to freeway traffic.

VicRoads' preferred option for Ballarto Road is an overpass without ramps, as shown in Figure 7.1, to provide connectivity between land uses east and west of Western Port Highway and consistency with the *Cranbourne West Precinct Structure Plan (January 2010).*

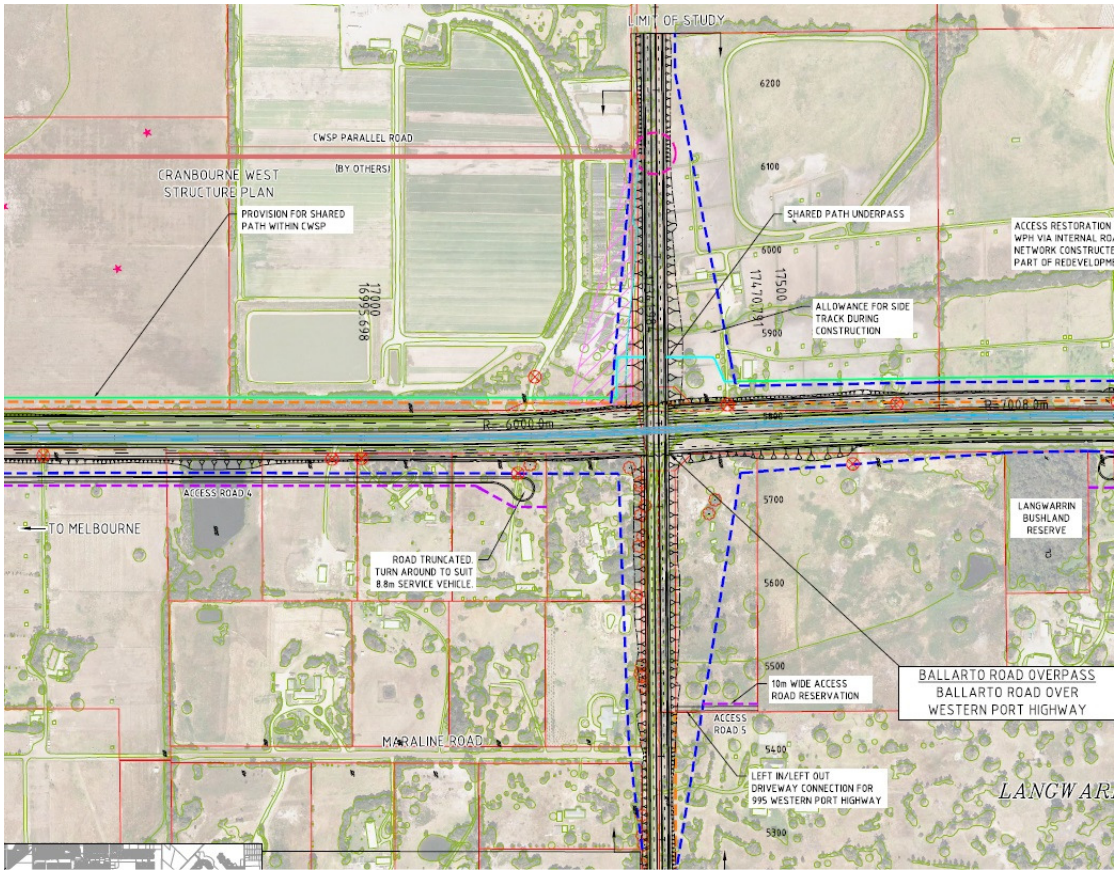


Figure 7.1 Overpass without Ramps at Ballarto Road (Preferred Option)

7.3 Other Options

The Ballarto Road Interchange Options Assessment (AECOM, August 2014) in Appendix L assessed interchange options for Ballarto Road to provide an understanding of the potential impacts of such options.

The report considered two northerly movement ramp options, one with diagonal northerly ramps located north of Ballarto Road and another option with loop ramps located south of Ballarto Road. The diagonal ramp option was preferred considering traffic operation and safety issues. A concept design for this option is shown in Figure 7.2.

The report also considered a full movement interchange option at Ballarto Road, with diagonal ramps for northerly movements and loop ramps for southerly movements, as shown in Figure 7.3.

Traffic modelling results and a comparative assessment of the impacts of the overpass, northerly ramp and full movement interchange options are summarised below.

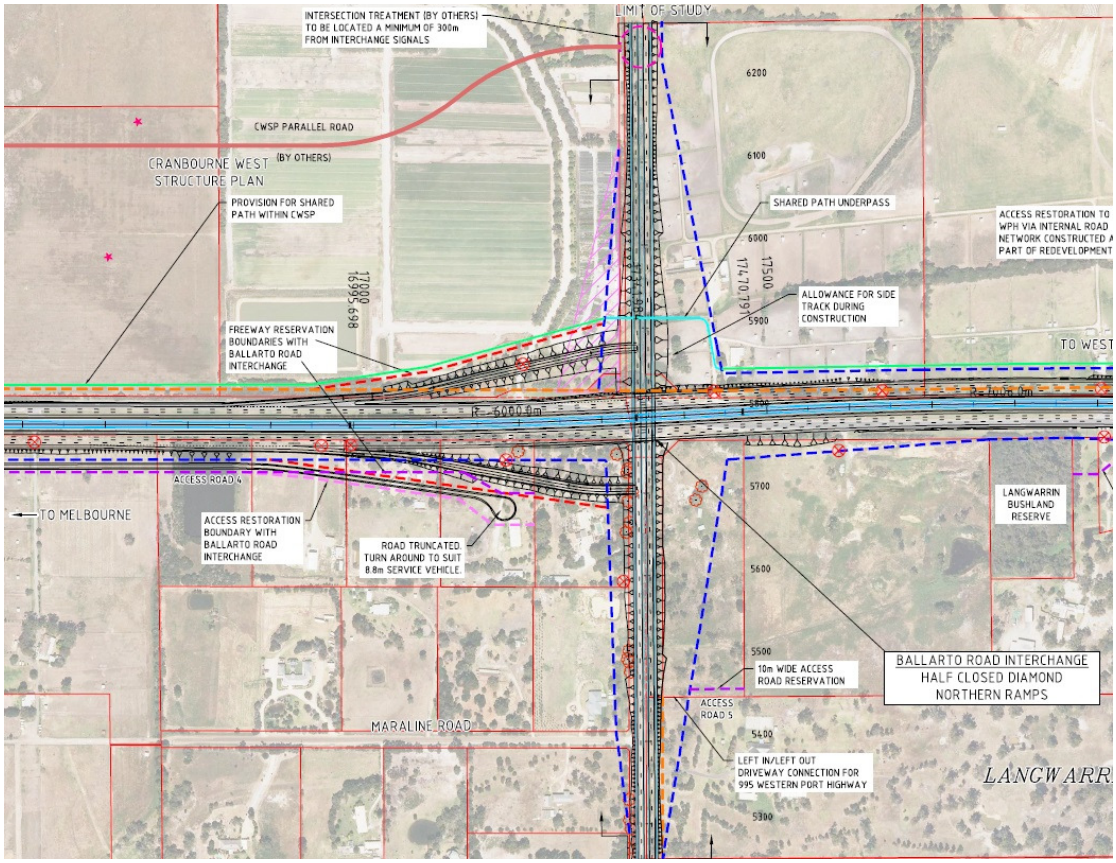


Figure 7.2 Northerly Diagonal Ramps at Ballarto Road

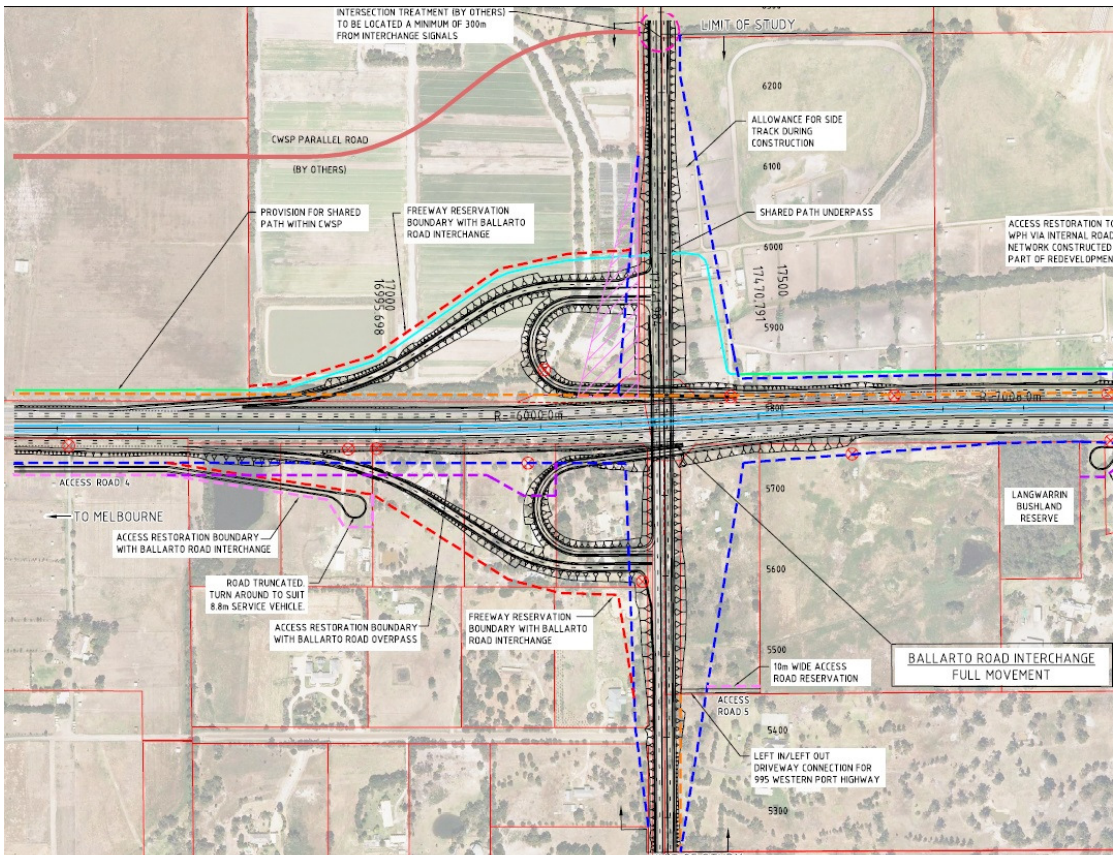


Figure 7.3 Full Movement Interchange at Ballarto Road

Traffic modelling

Traffic modelling of the three options using the Victorian Integrated Transport Model indicates the following:

- Southerly movement ramps at Ballarto Road would attract a very low traffic volume (less than 1,000 veh/day/ramp) and consequently have very limited impact on traffic volumes on other roads compared to the overpass option.

- Northerly ramps at Ballarto Road would attract a moderate traffic volume (6,000 to 7,000 veh/day), with consequential traffic volume increases on Ballarto Road west of WPH and traffic volume decreases on McCormicks Road, Hall Road, Cranbourne-Frankston Road and Potts Road.

- Any ramps at Ballarto Road would service local uses and have negligible impact on travel times to and from the Frankston Activity Centre.

- The overpass option for the WPH project results in some increase in traffic volume on McCormicks Road compared to the "without project" option due to a diversion of traffic to this route (contrary to the findings of the previous VicRoads modelling in 2011 and 2012).

- McCormicks Road and Potts Road have adequate existing midblock capacity to accommodate long term traffic demands associated with the overpass option for the WPH project.

Land use impact

The land required from properties south of Ballarto Road is the same for the three options.

Nine properties north of Ballarto Road are affected by the three options to differing extents as shown in Table 7.1. The properties west of Western Port Highway are in a rural conservation zone and mostly used for rural residential living purposes. The property to the east is with an urban growth zone, currently occupied by a turf farm, and expected to be subdivided and redeveloped for urban residential purposes in the future.

As shown in Table 7.1, the full movement interchange option requires significantly more land than the other options. It also requires acquisition of three houses, whereas the overpass option only requires acquisition of one house and the northerly ramp option requires acquisition of two or possibly three houses.

The property to the east at 950 Western Port Highway is subject to the requirements of the *Cranbourne West Precinct Structure Plan (January 2010)* and *Development Contributions Plan (January 2010).* The plans set aside 10,300m^2 of land for works associated with the upgrade of Western Port Highway to freeway standard. As shown in Table 7.1, the northerly ramp and the full movement interchange options require a greater land area. The greater land take, particularly for the full movement interchange option, will reduce the area of land available for residential development and reduce the funds receivable from development contributions.

Table 7.1 Land use impacts for Ballarto Road options

Property	Land acquisition area (sq.m)			Building acquisition		
	Overpass	North ramps	Full interchange	Overpass	North ramps	Full interchange
West of WPH						
875 & 905 WPH	19,650		20,010	Shed on 875 WPH		
925M WPH	4,530		5,670	No		
935 WPH	4,470	5,150	8,510	No		
945 WPH	4,460	6,840	10,590	House		
955 WPH	6,030	10,290	18,590	No	House	
965 WPH	6,510	10,980	20,200	No	No but PAO very close to house	House
20 Maraline Rd	0		60	No		
10 Maraline Rd	3,310		5,070	No		
East of WPH						
950 WPH	6,480	18,630	57,170	Yes – business premises (space to rebuild)		
Total	55,440	79,380	145,870	2	3 or 4	4

The northerly ramp and full movement interchange options provide more direct access to and from the north via Western Port Highway for properties along and near Ballarto Road, and in the vicinity of Western Port Highway. The full movement interchange option also provides more direct access to and from the south for these properties.

Social Impact

As discussed above, the full movement interchange option requires significantly more land than the other options. It requires acquisition of three houses, whereas the overpass option only requires acquisition of one house and the northerly ramp option requires acquisition of two or possibly three houses. It also results in the road infrastructure being significantly closer to three houses to the west of these houses than the other two options.

The overpass option provides the least amenity impact to properties abutting the proposed future freeway, whilst the full movement interchange option provides the greatest adverse amenity impact to these properties due to road proximity and visual impacts.

The overpass option is expected to reduce volumes on the existing Ballarto Road, and thereby provide some amenity benefit to these properties. However, the diverted traffic may increase the adverse amenity impacts of traffic on other roads, such as McCormicks Road and Potts Road. In particular there may be increased use of McCormicks Road by commercial vehicles associated with the quarry in Harold Road.

The overpass option is more consistent with Casey City Council's proposals for the future residential area east of Western Port Highway, as it allows for this future section of Ballarto Road to be a two lane, tree-lined boulevard. The inclusion of interchange ramps would change the function of this road, potentially triggering the need for a higher standard arterial road with a lower level of amenity.

Flora and fauna impact

A detailed analysis of the comparative impacts to remnant native vegetation of the three options indicates the following:

- The full movement interchange option has the largest footprint and is expected to result in the loss of an additional 14 scattered trees and 0.02 hectares of remnant vegetation compared to the overpass option.

- The northerly ramp option is expected to result in the loss of an additional 6 scattered trees and 0.02 hectares of remnant vegetation compared to the overpass option.

Cultural heritage impact

A desktop assessment indicates that there are no additional Aboriginal or non-Aboriginal cultural heritage sites within the footprints for the northerly ramp and full movement interchange options, compared to the overpass option. However, there is greater risk of impact to as yet unidentified cultural heritage sites due to the larger land area required for the northerly ramp and in particular the full movement interchange options.

Visual impact

A high level comparison indicates that the northerly ramp and full movement interchange options will have a distinct visual difference to the overpass option. These options will occupy a larger footprint than the overpass option, creating more visual clutter and intensifying the perception of intrusion of road infrastructure onto the rural landscape for viewers. Vegetation screening would be required to mitigate these impacts.

Traffic noise impact

A high level comparison indicates that the northerly ramp and full movement interchange options may result in slightly lower traffic noise levels at properties adjacent to the interchange ramps than the overpass option, as the ramps provide a mound between houses and the freeway.

Although traffic noise levels may be slightly lower for the northerly ramp and full movement interchange options than the overpass option, the overall social impact to properties adjacent to the freeway is likely to be less for the overpass option considering the land use, social and visual impacts discussed above.

Air quality impact

A high level comparison indicates that there are no significant differences between the three options.

Conclusions

The above assessment indicates the following benefits of the overpass option compared to the other options:

- Less land use, social and visual impacts to properties abutting the Western Port Highway.
- Lower traffic volumes and less amenity impacts to properties along Ballarto Road.
- Less impact to remnant native vegetation.

The northerly ramp option provides the following benefits compared to the overpass option:

- Greater accessibility to and from the north via Western Port Highway for properties along and near Ballarto Road.
- Lower traffic volumes and less amenity impacts to properties along McCormicks Road.

The full movement interchange option provides the benefits of the northerly ramp option, as well as greater accessibility to and from the south via Western Port Highway for a very limited number of properties along and near Ballarto Road.

8 Conclusions

a) The Western Port Highway (North) Upgrade project is subject to the provisions of three planning schemes which apply in the municipal areas of Casey, Frankston and Greater Dandenong. The planning scheme amendments will reserve land to facilitate the upgrade of Western Port Highway between South Gippsland Freeway and approximately 1.2km south of Cranbourne-Frankston Road to freeway conditions, including allowance for a possible future railway line to the Port of Hastings.

b) The project is consistent with Government transport policy, including *Victoria - The Freight State* and *Plan Melbourne*. Western Port Highway is a declared primary arterial road and principal freight route, which traverses the outer south-eastern suburbs of the Melbourne metropolitan area and forms a major access route between South Gippsland Freeway and Hastings. It also provides an important transport corridor in the developing areas of the Casey-Cardinia Growth Corridor and Dandenong South Industrial Area.

c) The project requires planning permits for earthworks and roadworks in certain applying zones and overlays and for the removal of native vegetation in each of the three applying planning schemes. It is not proposed to construct the project at this time and hence VicRoads is not currently making application for these permits.

d) The project is generally supportive of State planning policy as set out in the State Planning Policy Framework of the Victorian Planning Provisions. In particular the project will support policies for growth areas (Cl.11.02-2), integrated transport (Cl. 18.01), movement networks (Cl. 18.02), ports (Cl. 18.03) and freight (Cl. 18.05).

e) The project has been conceptually designed to have regard to the objectives of policies which establish an environmental protection framework, including environmental and landscape values (Cl.12) and built environment and heritage (Cl. 15).

f) Local Planning Policy Framework of the three applying planning schemes generally recognises Western Port Highway as an important arterial in the existing and planned future development of the region. The proposed reservation of land for the upgrade of the Highway is therefore generally supportive of the local policy framework of the three local planning authorities.

g) The City of Casey has adopted two strategic plans for land adjacent to Western Port Highway. The *Lynbrook and Lyndhurst Development Plan* and the *Cranbourne West Precinct Structure Plan* are effective through their incorporation into the Casey Planning Scheme. The project is specifically recognised and provided for in the *Cranbourne West Precinct Structure Plan*. Aspects of the project conflict with the *Lynbrook and Lyndhurst Development Plan*, and the project includes signalisation of the Glasscocks Road/Aylmer Road intersection to mitigate some of these impacts.

h) The City of Greater Dandenong has adopted one strategic plan for land adjacent to Western Port Highway. The *Dandenong South Industrial Area Extension Structure Plan* is effective through its incorporation into the Greater Dandenong Planning Scheme. The project is specifically recognised and provided for in the Structure Plan, and consistent with the access proposals for development within the industrial area.

i) The construction of the project and related intersection improvements will deliver a range of traffic and transport benefits with consequential economic, social and environmental benefits. These benefits include reduced travel time and improved traffic efficiency, improved access to employment and other areas, public and sustainable transport opportunities, improved road safety, and support for urban growth strategies and regional growth.

j) A total of 79 parcels of land are affected by land acquisition for the project, including 71 parcels affected by the proposed public acquisition overlay. Ten of the land parcels are owned by State or Local Government and the remainder are registered to private owners. Of the 23 properties affected by building acquisition, 16 properties are of sufficient size to enable construction of replacement houses, buildings or sheds elsewhere on the property. Of the remaining 7 properties, 6 properties are rural residences with limited or no residual land to enable replacement housing. The other property is a service station on land that is to be redeveloped as residential.

k) A total of 71 parcels of land are affected by driveway closures associated with the project. Access to all of these properties, except two service stations, will be restored via new driveways and existing or new local roads as necessary.

l) Road closures associated with the project will affect existing and future urban areas and many properties near Western Port Highway are indirectly affected. Alternative access has been planned or is available for the urban areas and the impacts for existing and future users and occupiers of these areas are not considered to be significant. The project includes intersection upgrades as necessary to accommodate traffic diverted by the closure of access to Western Port Highway at Moreton Bay Boulevard and Ballarto Road.

m) The project may have a range of potential negative social impacts to properties abutting the Western Port Highway. Social impacts potentially relate to anxiety and uncertainty about project impacts and timing, land acquisition and compensation impacts, local access changes, severance to properties, individual mobility limitations, dislocation due to the barrier effect of the road, and changes to resident's amenity. Despite these local impacts the project is expected to provide a net community benefit to the Victorian community, particularly the metropolitan south-east region where it will provide improved accessibility to employment nodes, activity centres and community infrastructure and a catalyst for economic growth and employment.

n) The most significant adverse economic impacts of the project are to three service stations abutting the east side of the Western Port Highway. One service station is fully acquired and the other two service stations lose all access to the Highway. Three other local businesses may be significantly impact by the project. Despite these local impacts, the project is expected to have significant positive economic benefits for the overall road transport function in this sector of the metropolitan area and will support local development and land use. The project is estimated to have a benefit cost ratio of at least 4.

o) The study area contains a number of high conservation significance large old trees and a significant area of native vegetation. No threatened species have been identified in targeted surveys, except for two birds that may be occasional visitors to the area. Approval for removal or destruction of the native vegetation is not being sought as part of this amendment process. Permits will be sought as necessary under the relevant planning scheme prior to the construction of the project.

p) Visual assessments indicate that the project represents a change in the visual environment that would not be out of place or particularly memorable in an increasingly urbanised area. Generally the visual impacts of the project to abutting residents and workers will be mitigated by landscape treatments within the road reserve or adjacent tree reserves.

q) Investigations of the project area have identified a number of items of Aboriginal and non-Aboriginal cultural heritage significance (low to moderate significance). VicRoads will continue to seek ways to mitigate project impacts on identified cultural heritage items. In particular it will complete a cultural heritage management plan prior to seeking approval for the project.

r) Assessment of the project against *VicRoads' Traffic Noise Reduction Policy* indicates that it is not eligible for noise attenuation measures. Preliminary noise modelling for 191 residences near the Western Port Highway indicates that an imperceptible noise increase is expected at 99 residences and a perceptible noise increase is expected at 74 residences due to the project.

s) The project is not expected to result in near-road air pollutant concentration levels in excess of intervention levels specified by the Environment Protection Authority.

t) The construction of the project is not expected to encounter any significant flooding, stormwater, geotechnical or groundwater issues.

u) Planning permits and other approvals for project works will be sought at a later stage when construction funding is approved and detailed designs are prepared. Therefore the impacts of construction are more appropriately a matter for consideration when approval is being sought for the project works.

v) Over the period of development of conceptual plans, investigations and proposed reservation for the project, VicRoads has consulted a range of stakeholders and interested parties. Issues raised by land owners, businesses and other stakeholders have been taken into consideration in the development of the proposed reservation.

APPENDICES

A	Concept Design and Engineering Considerations (AECOM, June 2014)
B	Transport Infrastructure Assessment (VicRoads, July 2014)
C	Allowance for Hastings Rail Link (Raylink Consulting, March 2014)
D	Land Use Impact Assessment (VicRoads, April 2014)
E	Social Impact Assessment (AECOM, June 2014)
F	Economic Assessment (Parsons Brinckerhoff, July 2014)
G	Flora and Fauna Assessment (AECOM, May 2014)
H	Visual Assessment (AECOM, July 2014)
I	Cultural Heritage Assessment (Andrew Long & Associates, March 2014)
J	Traffic Noise Impact Assessment (AECOM, December 2013)
K	Air Quality Impact Assessment (AECOM, July 2014)
L	Ballarto Road Interchange Options Assessment (AECOM, August 2014)