Report

Land Use and Regional Economy Report for the Kilmore-Wallan Bypass

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Prepared for

VicRoads

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Introduction

URS Australia Pty Ltd (URS) was commissioned by VicRoads in May 2012 to conduct a land use and regional economy assessment for five Kilmore-Wallan Bypass alignments that are being considered as part of planning investigations. This report, together with reports from other investigations, will be used by VicRoads to assess the relative performance of the five alignment options for the Kilmore-Wallan Bypass. The bypass is to provide a connection from the Hume Freeway to connect with the Northern Highway just north of Kilmore, as well as to provide for local commuter traffic for residents of the two towns, especially to places of employment in metropolitan Melbourne.

This report assesses the relative performance of the five proposed bypass alignments against a number of sub-objectives developed in conjunction with VicRoads, using assessment criteria that draw on information gathered during a stakeholder consultation process as well as other data sources.

Methodology

To assess the likely land use and regional economy impacts of the five proposed alignments the following tasks were undertaken:

- Background reviews
- Site visits
- Meeting with Mitchell Shire Council
- Stakeholder consultation

Stakeholder consultation was undertaken according to a Stakeholder Consultation Plan prepared by URS and approved by VicRoads. The Plan set out the processes and requirements for consultation with landholders, businesses and stakeholders as part of the Study.

A representative sample of stakeholders was identified by selecting landowners and businesses according to land use precinct, enterprise type and impact type (directly impacted, indirectly impacted, not impacted). Tailored questionnaires for each landowner and business type were developed by URS and approved by VicRoads.

Existing and Future Land Uses

Settled in the mid-nineteenth century, Kilmore is one of the oldest human settlements in Victoria. The more recent rapid population growth of Wallan, and to a lesser degree Kilmore, has created pressure for land use change.

Land use surrounding the Kilmore and Wallan town centres is primarily traditional 1,000 square metres (quarter acre) residential blocks. Generally, the blocks become larger in size beyond the town centre. New subdivisions are located outside these two townships, especially to the north of Wallan. This residential growth is being driven by significant population growth in recent years.

Population growth is a consequence of Kilmore and Wallan's attractiveness as commuter towns, providing rural living, with access to Melbourne for work. It is anticipated that Wallan will receive the majority of the population growth within the Shire. This is reflected by Wallan's recent inclusion in Melbourne's Northern Growth Corridor as part of the Logical Inclusions Process.

Executive Summary

Overview of Regional Economy Activities

The mix of industries in the region is broadly consistent with the mix across Victoria, with the exception of a greater proportion of manufacturing, construction, transport, postal and warehousing businesses in Mitchell Shire compared with all of Victoria. These businesses will likely benefit from the improved access to skills and materials in Melbourne and other regional areas as a result of the proposed bypass.

Agricultural businesses in Mitchell Shire comprise approximately 6% of local industries compared with 10% across Victoria. Similarly, the tourism industry (represented by accommodation and food service businesses) comprises only 3% of the economy of Mitchell Shire. As such, any impact on these sectors by the proposed bypass will have negligible impact on the regional economy.

Over 50% of employment within the Shire is in the public administration and safety, retail trade, education and training, health care and social assistance industries. With the exception of retail trade, these industries are unlikely to be affected by the proposed bypass. Reduced traffic volumes resulting from the proposed bypass would likely encourage more pedestrian traffic, benefiting retailers in central Kilmore and Wallan.

The highest level of education attained by residents of Mitchell Shire is broadly consistent with the levels across Victoria. This indicates the local population is a relatively highly educated one, and will therefore adapt readily to any changes to the regional economy resulting from the proposed bypass.

Current Planning Controls, Policy and Strategy

The key pieces of Commonwealth and State legislation that apply to current planning controls, policy and strategy of relevance to the land use assessment of the proposed Kilmore-Wallan Bypass alignments include:

- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
- *Environment Effects Act 1978* (State)
- *Land Acquisition and Compensation Act 1986* (State)
- *Planning and Environment Act 1987* (State)

The *Planning and Environment Act 1987* establishes the framework for planning the use, development and protection of land in Victoria. This Act enables the preparation of Planning Schemes by local governments in their role as Planning Authority, for the control of land use and development.

Under the provisions of the Mitchell Planning Scheme, some works associated with the construction of the Kilmore-Wallan Bypass would require a planning permit. However, A Public Acquisition Overlay set out in clause 45.01 of the Victorian Planning Provisions would be applied to the area required to construct the approved option. This provision exempts the authority responsible for acquiring the land from the usual planning permit requirements if the land has been acquired and any of the above matters for which a permit is required is consistent with the purpose for which the land was acquired. The current zoning and permit requirements therefore present no barrier to the selection of any bypass option over another.

The proposed bypass alignments are broadly consistent with the Kilmore and Wallan Structure Plans, which encourage upgraded road infrastructure to support and facilitate growing residential populations.

Executive Summary

Land Use and Regional Economy Impact Assessment

Loss of land and land severance are the two most significant impacts on landholders that may arise from the construction of any of the proposed bypass alignments. The number of directly impacted properties, excluding Crown land and taking into account those landowners with multiple parcels, ranges from 35 for the Dry Creek Option to 67 for the Quinns Road Option.

Land severance is potentially a more severe form of land use change in that it divides a property with ramifications for the viability of the current land use as a result of decreased accessibility to land and infrastructure and associated increased operating costs. The number of properties severed by each of the proposed bypass alignments ranges from 5 for the Quinns Road Option to 11, with the Dry Creek and Western Options having the most severe impact.

The greatest area of land required to secure the road reserve or Right of Way (ROW) is 197 Ha for the Western Option, and the least is 148 Ha for the Sunday Creek Road Option. These areas are small in the regional context. While the area affected by each of the proposed alignments is small in a regional sense, some zones are disproportionately affected by some options. In particular, all proposed alignments with the exception of the Western Option will affect between 20–45 Ha of land zoned Rural Living owing to the fact that they pass through what are essentially peri-urban areas of Kilmore.

The Quinns Road Option will affect more than 10 Ha of the Public Conservation and Recreation Zone, which includes the Kilmore Racing Club and Golf Course respectively, both of which are highly valued assets by the community. While the Quinns Road Option will have no direct impact on these facilities, its proximity is a sensitive issue within the community and any amenity impacts should be mitigated through appropriate measures, which will then contribute to the cost of construction of this option.

All options will affect between 80–145 Ha of land zoned for farming. However, these areas are small in the regional context, so that while the impact on individual landholders may be considerable, the impact on faming on a regional scale will be minimal.

A reduction in the amount of land available for economic activities as well as the severance of properties increases the cost of doing business relative to the income that can be derived from a property.

Impacts of the proposed bypass alignments on the regional economy are largely determined by the cost of construction relative to the travel-time savings, which, in essence, are a measure of increased efficiency in meeting future transport needs both with respect to the movement of people and freight.

VicRoads has advised that the total estimated costs will be inclusive of costs of land acquisition, severance and mitigation measures such as pedestrian crossings, meeting contemporary safety and traffic standards, and of complying with existing policy, strategic objectives and regulatory requirements of state and local government.

These costs are currently being finalised in consideration of mitigation measures proposed by the individual specialist's studies. Based on preliminary estimates VicRoads has advised that the indicative relative order of lowest to highest option cost is shown in Table ES-1.

Executive Summary

Table ES-1 Relative construction costs

Proposed alignment option	Relative costs
Western	Lowest
Quinns Road	
Sunday Creek Road	
O'Gradys Road	
Dry Creek	Highest

Source: VicRoads

The value of annual travel-time savings for heavy vehicles ranges from approximately $1 million (Sunday Creek Road Option) to approximately $1.7 million (Quinns Road Option). By contrast, the annual savings for light vehicles ranges from $4.2 million (Sunday Creek Road Option) to $9.5 million (Quinns Road Option). The much higher value and broader range of savings for light vehicles is indicative of the potential of the different alignments to meet local transport needs, particularly for the commuter traffic to metropolitan Melbourne.

Impact Assessment Evaluation

The nine objectives established by VicRoads for the Kilmore-Wallan Bypass Planning Study were used by URS to prepare corresponding sub-objectives for the relevant objectives for the Land use and Regional Economy component. They were:

- Assess the local and regional economic impacts/benefits for each of the five proposed corridor options (for Study Objective 2)
- Assess policy, legislation and strategic growth plans relevant to land use and its implications for the project (Study Objective 3).
- Assess the changes in land use and associated impacts on the regional economy for business, tourism and agricultural activities for each of the five proposed corridor options (Study Objective 4)
- Assess the potential benefits of the removal of traffic from the main street of Kilmore and Wallan to revitalise the commercial area (Study Objective 5); and
- To inform the selection of the preferred corridor based on minimising adverse impacts and highlighting positive land use and regional economic benefits (Study Objective 9)

Presented in Table ES2 is a relative assessment of the proposed options, based on the underlying need to increase the capacity of the existing road network in the study area and remove heavy vehicles from Sydney Street Kilmore. This assessment was informed from the information obtained from stakeholder consultations, the results from other studies for the Planning Study and other publicly available data. The more ticks allocated, the greater the potential relative merit of the proposal.

Executive Summary

Table ES2 Relative performance of the five proposed bypass alignments

Assessment Criteria	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
2. Improve transport connectivity, freight movement and efficiency for bypassable traffic.					
Annual Travel-time benefit (light and heavy vehicles) (AECOM)	✓✓ $8m	✓✓ $9m	✓✓✓ $11m	✓ $5m	✓✓ $9.8m
Land use change (refer to Table 6-3)	✓	✓	✓	✓	✓
Ease of access (within study area and for commuter traffic)	✓	✓✓	✓✓✓	-	✓✓
Relative construction costs (VicRoads) (refer to Table 6-4)	✓	✓✓	✓✓✓	✓✓	✓✓✓
3. To achieve acceptable consistency with current and proposed land uses and support the long term planning and development of the Kilmore-Wallan area.					
Commonwealth & State planning controls, legislation, policy and strategies	-	-	-	-	-
Local Government planning controls, policies and strategies	-	-	-	-	-

Executive Summary

Assessment Criteria	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
4. Minimise displacement and severance of communities, community facilities and agricultural land, to the extent practicable.					
Number of properties (impacted by land use function) / area to be acquired or partially acquired (total area of land required for road reserve (ROW))	✓✓ 35 /165 ha	✓✓ 61 /166 ha	✓ 67 /173 ha	✓✓ 45 /149 ha	✓✓ 47 /197 ha
Land severance, lot fragmentation and usability of existing properties.	✓ 11	✓✓ 8	✓✓✓ 6	✓✓✓ 5	✓ 10
Impact on access to properties, businesses, infrastructure and community services.	✓✓	✓✓	✓✓	✓	✓✓✓
Impact on public open space and community facilities.	✓✓	✓✓	✓	✓✓	✓✓
5. Improve town amenity by removing bypassable traffic, minimising noise and visual impacts of the new road and minimising impacts on key community facilities during construction and operation of the bypass.					
Reduce trucks and through traffic from the commercial area	✓✓	✓✓	✓✓✓	✓	✓✓
Economic benefit to commercial and employment activity	✓	✓	✓✓✓	✓	✓✓
Total score (ticks)	**15**	**18**	**23**	**14**	**20**
Overall rating	**MODERATELY POOR**	**MODERATLEY WELL**	**WELL**	**MODERATELY POOR**	**WELL**

Conclusion

Based on the assessment against the approved sub-objectives, the Quinns Road alignment is identified as the best performing alignment from a land use and regional economy perspective.

However, the Western alignment is also rated highly with the main difference between the two alignments arising from their impacts on existing land uses within the study area.

No alignment option is rated as performing "Very Well". This is because of the relatively low travel-time savings compared with the likely costs of construction. However, this does not mean that the construction of a Kilmore-Wallan bypass is not justified to meet the underlying capacity constraint of the existing road network with respect to heavy vehicles passing through Sydney Street Kilmore and commuter traffic to and from metropolitan Melbourne.

1

Introduction

URS Australia Pty Ltd (URS) was commissioned by VicRoads in May 2012 to conduct a land use and regional economy assessment for five Kilmore-Wallan Bypass alignments that are being considered as part of planning investigations. This report, together with reports from other investigations, will be used by VicRoads to assess the relative performance of the five alignment options for the Kilmore-Wallan Bypass. The bypass is to provide a connection from the Hume Freeway to connect with the Northern Highway just north of Kilmore.

The Kilmore-Wallan Bypass Options Examination (July 2008) identified and investigated 11 potential corridors/options. Land use and regional economy were not investigated as part of this previous work. However, land use and regional economic assessments were undertaken as part of a study (conducted in 2006 and updated in 2010) for the duplication of the Northern Highway between the Hume Freeway and Kilmore and which also passes through Wallan.

Given this previous work, and initial discussions with VicRoads, URS considers that there are two underlying constraints that provide context for this land use and regional economy assessment. These are:

1. The inadequate capacity of the existing road network to service the needs, hence associated congestion, of residents living mainly in the urban areas of Wallan and Kilmore travelling to metropolitan Melbourne, particularly for employment in the northern suburbs;
2. The impact of heavy vehicles on public health and safety, and overall amenity through the use of Sydney and Powlett Streets Kilmore (which forms part of the Northern Highway corridor)

This report identifies and addresses the impacts and issues for each of the five selected alignments based on the feedback received from undertaking over 85 face-to-face interviews with selected stakeholders from across the study area (refer to Figure 1-1), the findings from other concurrent investigations commissioned by VicRoads, and the analyses of publicly available data undertaken by URS. The report has also been informed by the ongoing guidance provided by VicRoads.

1.1 Study Area

The Kilmore-Wallan Bypass Land Use and Regional Economy Study covers the area surrounding the Kilmore township bound by Paynes and Kings Lane in the west, the intersection of Broadford-Kilmore Road and Northern Highway in the north, the Hume Freeway to the east and Beveridge Road to the south. The study area includes the towns of Broadford, Kilmore, Wallan and Wandong (refer to Figure 1-1).

Kilmore and Wallan are located in the southern part of the Mitchell Shire. The area covered by the Mitchell Shire is used to define the “Regional Economy” for assessment purposes. This wider study region as shown in Figure 1-2 is to be distinguished from the “study area” as shown in Figure 1-1 which would be broadly affected by the proposed routes for the Kilmore-Wallan Bypass.

1 Introduction

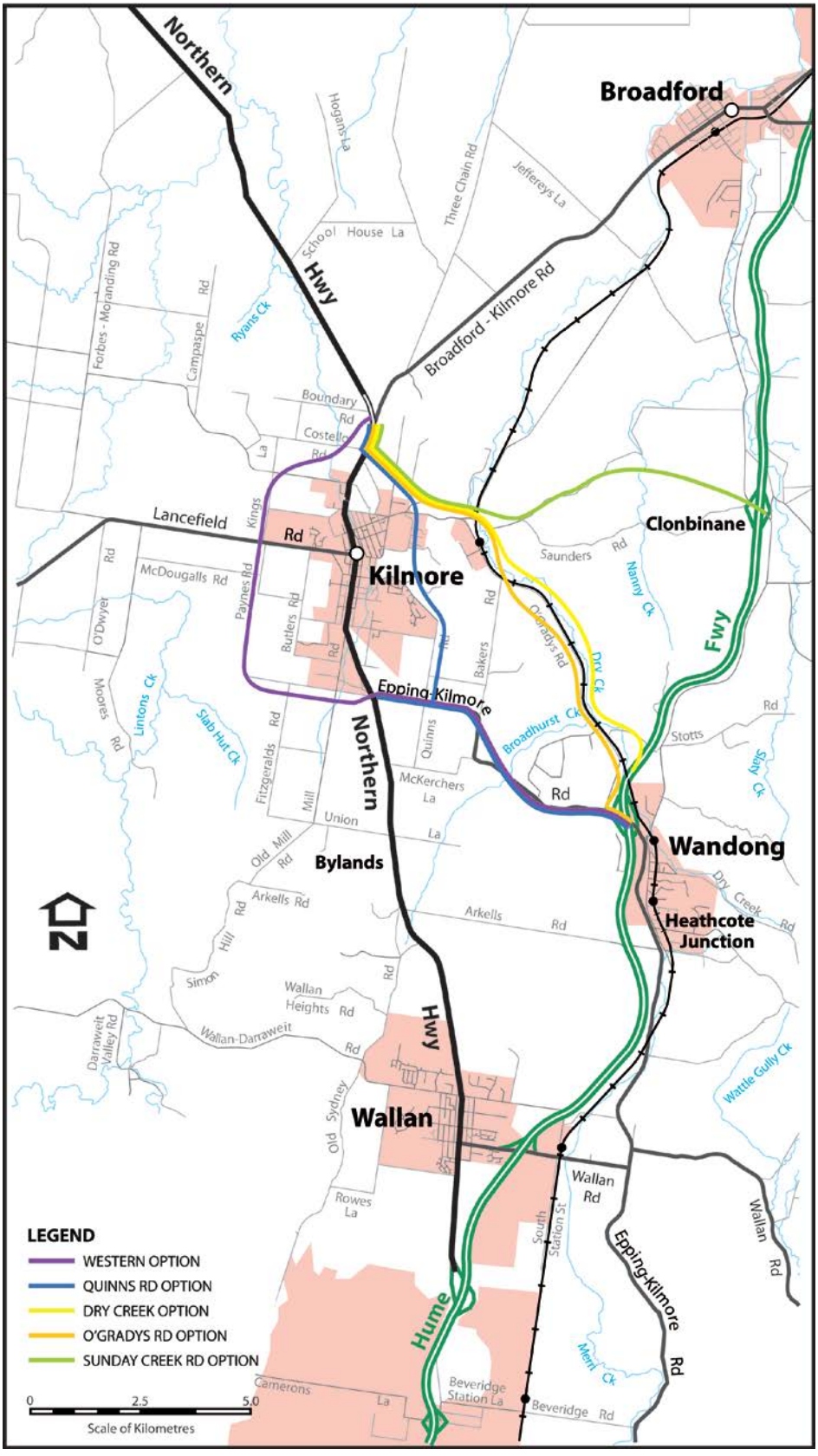
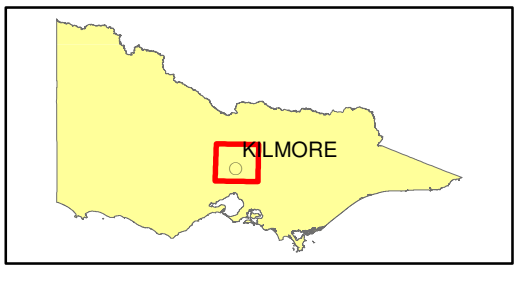


Figure 1-1 Kilmore-Wallan Bypass study area

CAMPASPE
EDALE
NAGAMBIE
Heathcote Nagambie Rd
Melvor Hwy
Heathcote Nagambie Rd
STRATHBOGIE
Avenel Nagambie Rd
Hume Fwy
GREATER BENDIGO
AVENEL
HEATHCOTE
Goulburn Valley Fwy
Heathcote Redesdale Rd (Heathcote Kyneton Rd)
Northern Hwy
Seymour Tooborac Rd
SEYMOUR
Goulburn Valley Hwy
TALLAROOK
PYALONG
MOUNT ALEXANDER
MITCHELL
Hume Fwy
BROADFORD
YEA
Broadford Kilmore Rd
Broadford Flowerdale Rd
LANCEFIELD
KILMORE
MURRINDINDI
WATERFORD PARK
Lancefield Kilmore Rd
Kilmore Lancefield Rd
MACEDON RANGES
Lancefield Woodend Rd
Northern Hwy
WOODEND
ROMSEY
WANDONG
HAZELDENE
High St
MOUNT MACEDON
WALLAN
MACEDON
Whittlesea Yea Rd
Melba Hwy
RIDDELLS CREEK
Calder Fwy
Main Rd
BEVERIDGE
Wallan Rd
PHEASANT CREEK
GISBORNE
Calder Fwy
WHITTLESEA
Whittlesea Kinglake Rd
WHITTLESEA
Coombs Rd
Grants Rd
Merriang Rd
KINGLAKE
Riddell Rd
HUME
Wildwood Rd
Mickleham Rd
Hume Fwy
Donnybrook Rd
Epping Rd
Plenty Rd
NILLUMBIK
YARRA RANGES
Arthurs Creek Rd
ST ANDREWS
MOORABOOL
MELTON
Gap Rd
SUNBURY
MERNDA

LEGEND

- Localities
- Main Highway
- Mitchell Shire LGA Boundary
- Other LGA boundaries



N
W E
S

0 1,500 3,000 6,000 9,000 12,000 Metres

Scale: 1:293,116
Coordinate System: GDA 1994 MGA Zone 55

VICROADS

LAND USE AND REGIONAL ECONOMY STUDY FOR THE KILMORE-WALLAN BYPASS

MITCHELL SHIRE WIDER STUDY AREA

URS

File No: **43283721_Mitchell_Locality.mxd** Drawn: **SS** Approved: **KS** Date: **14/11/2012**

Figure: **1-2**

Rev. **A** A3

1.2 Background

Kilmore and Wallan are experiencing population growth rates amongst the highest in Victoria. In addition to increasing levels of local traffic, as an important industrial centre in the region, Kilmore is subjected to heavy vehicle and freight traffic, as well as tourists heading north into Echuca and New South Wales. Truck and freight volumes are expected to increase with the increase in the statewide freight task. In addition, the community has expressed concerns with the volume of freight traffic in the region, especially through the narrow (20m) road reservation in Sydney Street, Kilmore.

As a result of these factors, Mitchell Shire Council, in conjunction with the Victorian State Government, has determined that a bypass of Kilmore and Wallan should be considered. Over the last ten years, in consultation with the local community, various studies have explored measures to cater for local traffic needs. The studies began with the Northern Highway B75 Corridor Strategy in 1998, followed by;

- The Kilmore Arterial Road Network Study (KARNS) in 2002,
- The Northern Highway Duplication Study in 2005,
- The Kilmore-Wallan Bypass Options Examination in 2008, and
- Linking Kilmore in 2009.

An outline of the content of these studies and their findings is provided below:

- The Northern Highway B75 Corridor study identified future highway improvements including the need to consider construction of a Kilmore Bypass if warranted following a detailed planning study.
- The Kilmore Arterial Road Network Study (KARNS) was conducted in 2002 and assessed the need for a bypass near Kilmore. The study concluded that a collector distributor network should be developed to address local traffic demand through central Kilmore.
- In December 2005, a Planning Study was commenced investigating the duplication of the Northern Highway between Kilmore and the Hume Freeway. The study found that this section of the Northern Highway would require additional capacity due to the Kilmore growth rate and its proximity to Melbourne.
- In 2008, the Kilmore-Wallan Bypass Options Examination considered preliminary planning investigations into bypass options in the Kilmore-Wallan area. In consultation with the local community, VicRoads developed and investigated the feasibility of 11 potential bypass options.
- In October 2009, the Mitchell Shire Council met with the former Government and prepared a list of improvement projects as the basis for a Memorandum of Understanding (MoU), to be known as the 'Linking Kilmore' package of works that would address the heavy truck and general congestion in Sydney Street, local traffic needs and revitalise the town centre.

The Linking Kilmore package of works included as its principal project, the development of a new Link Road along Conway/Johns Streets that had been previously identified in Council's Kilmore Access and Movement Study report and a similar alignment to Option G that was investigated in the Kilmore-Wallan Bypass Options Examination in 2008.

The Mitchell Shire Council withdrew its support for Linking Kilmore despite the former Government having committed to fund the Link Road project. The current Government did not support the Link Road proposal and directed VicRoads to investigate and construct a suitable bypass of Kilmore and Wallan by 2017 as its priority. The Government has also directed VicRoads to complete planning activities for future capacity needs of the Northern Highway, south of Kilmore.

1 Introduction

The current Kilmore–Wallan Bypass Planning Study is investigating the better performing options previously considered in the Kilmore-Wallan Bypass Options Examination.

The options considered for more detailed investigation were those that met the Government's commitment of providing a bypass of both Kilmore and Wallan and those that were effective in reducing truck and through traffic in Kilmore and Wallan. Options A, B and C considered in the Kilmore-Wallan Bypass Options Examination were selected as the basis for the current detailed planning investigation.

Options A, B and C were then refined to become:

- Sunday Creek Option (Option A),
- Dry Creek Option and O'Gradys Option (Option B - This was developed as two options to minimise impacts along O'Gradys Road), and
- Quinns Road Option (Option C – including connection to the Northern Highway south of Kilmore).

Following feedback from the community, the Minister for Roads requested that a suitable option to the west of Kilmore be developed and included in the planning investigations and this is known as the Western Option (combination of K and D corridors from the 2008 study).

1.3 Project Description

The Kilmore-Wallan Bypass will link the Northern Highway from the north of Kilmore with the Hume Freeway to the east of Kilmore. A bypass of Wallan is achieved by utilising the existing Hume Freeway whereas Kilmore would be bypassed via a new alignment between that Freeway and the intersection of the Northern Highway and Kilmore-Broadford Road. The project will construct a single two lane carriageway highway bypass of Kilmore and Wallan by 2017 and will reserve and acquire sufficient land for possible future widening to a dual carriageway. The bypass will reduce truck traffic through the town centres and improve road safety and functionality in the town centres.

1.4 Key Construction Activities

The key construction activities shall involve civil works and a variety of structural works that include; large culverts, creek crossings, rail crossing, pedestrian underpasses and major interchanges. Other construction activities will include clearing of vegetation, general earthworks (including topsoil stripping, excavation, filling and topsoil spreading), relocation of utility services, drainage installation, landscaping, lighting and signage. Significant earthworks are required on all options (including excavation) as a result of very hilly terrain throughout the area.

A nominal 60 metres road reserve width for each route corridor has been proposed for flat terrain. This would allow enough room for future widening if required along with setbacks for safety and maintenance purposes. In very hilly terrain or where access restoration is required, the road reserve width could be expected to be much wider than 60 metres.

Reserve widths in excess of 200 metres could be required for the bypass to meet technical and safety requirements. This is achieved by either cutting through the hills/ridges or building the road up in valleys. The resulting footprint is much larger due to the embankments/cuts required to achieve this.

1.5 Kilmore-Wallan Bypass Options

VicRoads has identified five potential bypass options for further land use and economic analysis. Four of the five proposed options pass to the east of Kilmore with one to the west.

Four of the five options (including the western option) link to, or near, the existing Wandong interchange, with two of these options generally following Epping-Kilmore Road towards the southern end of Kilmore and two options generally following the alignment of the North Eastern Railway towards the northern end of Kilmore. A fifth option links to the Hume Freeway at the Clonbinane/Sunday Creek interchange. All options terminate at the Northern Highway to the north of Kilmore, at the intersection with Broadford-Kilmore Road (refer to Figure 1 1).

1.5.1 Description of Five Options for the Kilmore-Wallan Bypass Project

Dry Creek Option:

This option connects to the Hume Freeway just north of the existing Wandong Interchange via two southerly oriented ramps one. The bypass options then runs parallel to, and east of, the Melbourne-Sydney Railway and Dry Creek through tree plantation and faming land. The option crosses over the Melbourne-Sydney Railway at Kilmore East hamlet and then shares a common alignment with the Sunday Creek and O'Gradys Road Options. There are local road connections at Kilmore East Road and Kellys Lane.

O'Gradys Road Option:

The O'Gradys Road option connects to the Hume Freeway at the existing Wandong interchange, requiring an upgrade of the existing interchange. The bypass option then runs along the existing O'Gradys Road through rural residential and farming areas. The option deviates from the O'Gradys Road to cross the railway to avoid the Kilmore East hamlet. It then again crosses over the Melbourne-Sydney Railway north of the Kilmore East hamlet and shares a common alignment with the Sunday Creek Road and Dry Creek Options. There are local road connections at Kilmore-Epping Road, Kilmore East Road, Broadhurst Lane, Mathiesons Road, Sir Leo Curtis Drive, O'Gradys Road and Kellys Lane.

Quinns Road Option:

The Quinns Road option connects to the Hume Freeway at the existing Wandong interchange, requiring an upgrade of the existing interchange. The bypass option then generally follows the existing Epping-Kilmore Road and includes a connection to the Northern Highway south of Kilmore with a large roundabout. The bypass option then runs northwards parallel to, and east of Quinns Road and Andersons Road. It runs along the western base of Monument Hill Reserve to the east side of the golf course and racetrack along Hunts Road, requiring relocation of Hunts Road access along the east side of the bypass. The option then crosses Kilmore East Road and continues north-west through rural residential and farming areas before connecting to the Northern Highway south of the Broadford-Kilmore Road turnoff. There are local road connections at O'Gradys Road, Mathiesons Road, Millard Road, Quinns Road, McIvors Road, Tootle Street, Monument Hill Drive, Kilmore East Road, and Kellys Lane. The Kilmore-Broadford Road intersection would also be upgraded to a large roundabout.

1 Introduction

Sunday Creek Road Option:

The Sunday Creek Road option connects to the Hume Freeway at the existing Clonbinane interchange. The road heads westwards over farmland towards the Kilmore East hamlet utilising sections of the existing Sunday Creek Road where possible.

The bypass option crosses over the Melbourne-Sydney Railway at Kilmore East and runs parallel to, and north of Kilmore East Road. It then continues through in a north-west direction through rural residential and farming areas before connecting to the Northern Highway, south of the Broadford-Kilmore Road turnoff with a large diameter roundabout. There are local road connections at Broadford-Wandong Road, Saunders Road, Kilmore East Road and at Kellys Lane. The Northern Highway and Broadford-Kilmore Road intersection would also be upgraded to a large roundabout. The section of this option between the Kilmore East and the Northern Highway shares a common alignment with the O'Gradys Road and Dry Creek Options.

Western Option:

The Western bypass option connects to the Hume Freeway at the existing Wandong Interchange, requiring an upgrade of the existing interchange. The bypass option then generally follows the existing Epping-Kilmore Road connecting to the Northern Highway south of Kilmore with a large diameter roundabout. The bypass option continues westward running parallel to, and south of Gehreys Lane, before turning northward at Paynes Road and running parallel to and west of Paynes Road. The option connects to the Kilmore-Lancefield Road with a large diameter roundabout. The option then continues northward running parallel to, and west of, Kings Lane, before turning north-east past the waste water treatment facility before connecting to the Northern Highway at the Broadford- Kilmore Road intersection with a large diameter. There are local road connections at Broadhurst Lane, O'Gradys Road, Mathiesons Road, Millard Road, Quinns Road, Mill Road, Fitzgerald Road, McDougalls Road, Willowmavin Road and Costello's Road.

1.5.2 Bypass Options Summary Overview

The area to the east of Kilmore generally comprises steep hilly terrain providing challenging road alignment choices to achieve suitable road gradients for truck travel. If this project is to successfully reduce truck traffic in Kilmore and Wallan, the bypass must provide an attractive alternative to travelling through central Kilmore and Wallan along the Northern Highway. Two of the eastern options (Dry Creek option and O'Gradys Road option) are adjacent to, or cross, the floodplain located along Dry Creek.

Much of the Western option presents fewer geographic difficulties, with the majority of the alignment composed of cleared agricultural land, with little remaining native vegetation and minor grade impacts.

The options involve the upgrade of existing roads and the construction of new sections of road. The use of local roads has been avoided with the exception of O'Gradys Road, Sunday Creek Road and Hunts Road. It is expected that structures shall be erected at (where applicable) the crossings of Kilmore, Broadhurst and Dry Creeks, being either bridge structures or culverts. Major structures are also required over the Sydney – Melbourne Railway as underpasses are not feasible due to the proximity of Dry Creek floodplain. Major structures also include an overpass of Kilmore East Road and interchange upgrades at Clonbinane and Wandong. The Dry Creek option proposes a new half diamond interchange north of the existing Wandong interchange.

Safe intersection connections shall be made at points along the bypass route to connect local and arterial roads to the bypass, thereby improving traffic flow and accessibility for local traffic. Some large farming properties will have direct access to the new road however consideration has been given to service roads for controlling access and improve the safe operation of the bypass where required.

The concept design has been developed with an alignment to avoid and minimise impacts on key constraints (in both 2 lane and potential future 4 lane configurations). Subject to the outcome of the environmental, economic and social investigations the concept design could be modified to address certain impacts

The length of each route option is as follows (Source: VicRoads):

- Dry Creek – 11.2 km
- O'Gradys Road – 12.3 km
- Quinns Road – 12.7 km
- Sunday Creek Road – 11 km
- Western – 17.1 km

1.6 Study Objectives, Sub-Objectives and Assessment Criteria

The study objectives established by VicRoads for the Kilmore-Wallan Bypass Planning Study are to:

1. Improve road safety and enhance the functionality of the road network in town centres.
2. Improve transport connectivity, freight movement and efficiency for bypassable traffic.
3. To achieve acceptable consistency with current and proposed land uses and support the long term planning and development of the Kilmore-Wallan area.
4. Minimise displacement and severance of communities, community facilities and agricultural land, to the extent practicable.
5. Improve town amenity by removing bypassable traffic, minimising noise and visual impacts of the new road and minimising impacts on key community facilities during construction and operation of the bypass.
6. Avoid or minimise impacts on areas and features of ecological significance, to the extent practicable.
7. Avoid or minimise impacts on areas and features of heritage significance, to the extent practicable.
8. Avoid or minimise impacts on water quality, hydrology and floodplain to the extent practicable.
9. Provide a balanced outcome giving consideration to environmental, economic and social factors.

The purpose of the study is to conduct an assessment (desktop and detailed) of land use issues and associated impacts on the regional economy for each of the five (5) alignment options for the Kilmore-Wallan Bypass. This was to be achieved by undertaking an assessment of the impacts on landholders and businesses (including agricultural, education, commercial, tourism and industrial) of the Kilmore-Wallan Bypass with a view to assessing the options as well as making recommendations for mitigation measures to manage potential impacts as a result of the proposed project.

Based on the objectives established by VicRoads for the Planning Study, the subsequent sub-objectives developed by URS and assessment criteria to evaluate the performance against each sub-objective are presented in Table 1-1. To determine the relative performance of the five proposed bypass options, VicRoads provided a seven-level rating scale (shown in Figure 7-1) that will be used to complete an Objective Based Evaluation Matrix (OBEM). The findings of the applying the rating scale in assessing the five potential options is presented in Section 7.

1 Introduction

Table 1-1 Land use and regional economy study objectives, sub-objectives and assessment criteria

No.	Study Objectives	Sub-Objectives	Assessment Criteria
1.	Improve road safety and enhance the functionality of the road network in town centres.	No separate sub-objective proposed.	No separate Land use or Regional Economy Assessment Criteria required.. No relevant Land Use or Regional Economy Assessment Criteria.
2.	Improve transport connectivity, freight movement and efficiency for bypassable traffic.	Assess the local and regional economic impacts/benefits for each of the five proposed corridor options.	Evaluate the regional economic impacts/benefits of each option in terms of: • Travel-time savings (wider region – to be provided by VicRoads) • Land use change (study area – from consultation) • Ease of access (study area – from consultation) • Relative costs of construction (wider region – to be provided by VicRoads) The data obtained through consultation will be validated against publicly available data sources such as from the ABS regional community profile and the farm survey data from ABARES.
3.	To achieve acceptable consistency with current and proposed land uses and support the long term planning and development of the Kilmore-Wallan area.	Assess policy, legislation and strategic growth plans relevant to land use and its implications for the project.	Evaluate the capacity of the alignment options to facilitate the objectives of: • Commonwealth and State planning controls, legislation, policy and strategies (i.e. *Planning and Environment Act 1987, Transport Integration Act 2008*). • Local Government planning controls, policies and strategies (i.e. Mitchell Planning Scheme). Evaluate compatibility of options with the future land uses based on levels of population growth, housing, community services and urban growth boundary/ township boundaries.
4	Minimise displacement and severance of communities, community facilities and agricultural land, to the extent practicable.	Assess the changes in land use and associated impacts on the regional economy for business, tourism and agricultural activities for each of the five proposed corridor options.	Evaluate the five selected corridor alignments impacts, measured by: • Number of properties/area of land to be acquired or partially acquired. • Land severance, lot fragmentation and usability of existing properties. • Impact on access to properties, businesses, infrastructure and community services. • Impact on public open space and community facilities.

1 Introduction

No.	Study Objectives	Sub-Objectives	Assessment Criteria
5	Improve town amenity by removing bypassable traffic, minimising noise and visual impacts of the new road and minimising impacts on key community facilities during construction and operation of the bypass.	Assess the potential benefits of the removal of traffic from the main street of Kilmore and Wallan to revitalise the commercial area.	Evaluate the five alignment options ability to: • Reduce trucks and through traffic from the commercial areas. • Economic benefit to commercial and employment activity.
6	Avoid or minimise impacts on areas and features of ecological significance, to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
7	Avoid or minimise impacts on areas and features of heritage significance, to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
8	Avoid or minimise impacts on water quality, hydrology and floodplain to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
9	Provide a balanced outcome giving consideration to environmental, economic and social factors.	To inform the selection of the preferred corridor based on minimising adverse impacts and highlighting positive land use and regional economic benefits.	Determine which corridor option would provide the greatest net benefit to the local community, regional economy and Victoria overall from a land use and regional economy perspective.

1.7 Report Structure

This report is structured as follows:

Section 1 — describes the study area, project background, project description, key construction activities, bypass options, study objectives and sub-objectives and assessment criteria for this study.

Section 2 — outlines the methodology used to undertake the Land Use and Regional Economy Study.

Section 3 — describes the existing and future land uses for the study area.

Section 4 — describes the existing regional economic issues and business activities undertaken in the region.

Section 5 — describes the current planning provisions applicable to the study area and the consistency of the proposed bypass alignments with these planning controls.

Section 6 — discusses the land use and regional economy impacts resulting from the proposed bypass alignments.

Section 7 — assesses the impacts of the five proposed bypass options against the Objective Based Evaluation Matrix (OBEM) scale.

Section 8 — presents the key findings and recommendations of the Study.

2

Methodology

2.1 Approach

Based on the sub-objectives developed for this study (refer to Section 1.6 and Table 1-1) the focus of this land use and regional economy study for the Kilmore-Wallan Bypass will be on the relative impacts of the five options on business, tourism and agricultural activities within the study area.

Acknowledging that each of the five bypass options would be designed to meet current safety and traffic standards and other regulatory requirements, the key considerations for determining the impacts and benefits to landholders and businesses are:

1. Current land use - the need to obtain land to provide the required corridor for each option will directly affect current land uses and property within those corridors such as residential properties, business premises, utility infrastructure, native vegetation, community facilities, and/or open space.
2. Ease of access - a change in access (both pedestrian and vehicular) to existing facilities, such as the commercial centre in Sydney and Powlett Streets, sporting and recreational facilities, and/or particular commercial enterprises can have both positive and negative impacts for the businesses and their customers.

To assess the likely land use impacts of the proposed alignments a background review was undertaken analysing historic, current and future land uses and development potential in the study area, as well as reviewing Commonwealth, State and Local Government strategies and policies. This included consideration of consistency with planning policies and controls and likely future land uses.

The land use assessment additionally involves the general consideration of likely measures to mitigate impacts that are not consistent with planning policies and controls. This consideration is followed by an assessment of the degree of impact (high, medium, low) of each alignment, if measures are implemented.

To assess the likely regional economy impacts a background review of existing businesses was undertaken to understand the business profile of Kilmore and the surrounding area, any potential constraints were identified and possible impacts were assessed.

As the impact of a new road on a regional economy is in large part determined travel-time savings and associated lower operating costs in meeting transport and travel needs, including changes in the accessibility to businesses and community facilities within the area directed affected by the new road, the Regional Economy Impact Assessment will use the results of the Traffic Modelling and Economics Report being prepared by AECOM. Travel-time savings also need to be placed in the context of the costs of construction.

All other aspects being equal, the corridor option that gives rise to the greatest travel-time savings for the lowest cost of construction should represent the “best balanced outcome giving consideration to environmental, economic and social factors”.

2.2 Initial Information Gathering

2.2.1 Site Visit

To gain a more detailed appreciation of the potential local and regional impacts of the five options, URS undertook a site visit to Kilmore and the surrounding area. This site visit was used to traverse the five corridors.

In doing so, URS identified key areas where landholders and businesses (including agricultural, education, commercial, tourism and industrial) could be directly and indirectly impacted and should be consulted.

2.2.2 Mitchell Shire Council Meeting

URS attended a meeting with Mitchell Shire Council on 26 June 2012 to discuss the Study and gather information from Council that may inform analysis of the relative impacts of the five proposed bypass alignments. The focus of this meeting was to gain an understanding of Mitchell Shire's plans for in relation to future residential growth, for example potential planning scheme amendments to rezone land for residential purposes. This included a discussion of Amendment C79, which implements a number of the recommended actions included in the Kilmore Strategy Plan June 2008.

2.2.3 Community Consultation Group (CCG) Meeting

URS presented to the CCG on 7 June 2012. The presentation detailed the study objectives, study progress to date and future planned activities such as consultation with businesses and landholders. The CCG were also informed of the structure and content of the Land Use and Regional Economy Study Report and given the opportunity to ask any questions.

2.3 Stakeholder Consultation

2.3.1 Consultation Plan

A Consultation Plan was prepared by URS and approved by VicRoads in September 2012. The Plan set out the processes and requirements for consultation with landholders, businesses and stakeholders as part of the Study. It identified the number and type of stakeholders to be consulted in each precinct in order to ensure adequate coverage of the study area and potential impacts.

The Plan was prepared to facilitate the identification of potential issues that may arise during the stakeholders phase, which would then enable URS and VicRoads to respond to issues pre-emptively.

The Plan clearly sets out the engagement and communication tasks required as part of the broader project methodology and assigns responsibility for the completion of key tasks.

2.3.2 Stakeholder Selection

The information required to determine the differential impacts of the bypass options with respect to current land use, ease of access and safety and amenity aspects can only be obtained by consulting with affected landowners and businesses within the study area. Such information also needs to be collected in a consistent way and from a representative cross section of affected and/or interested parties.

Accordingly, and in conjunction with VicRoads, URS identified a number of categories of stakeholders from which to select a representative cross section of interests.

2 Methodology

Land Use Precincts

For the purposes of this study URS divided the assessment area into 20 land use precincts that are typically characterised by a particular use and development with a common level of sensitivity to the development of the bypass. A description of the current land use within each precinct is provided below. Grouping properties according to land use and selecting a sample from each precinct was designed so that the relative sensitivities of different land uses is captured for assessment purposes (refer to Table 2-1).

Table 2-1 Number of interviewees by land use precinct

Land Use Precinct		No. interviewees
1.	North-west rural precinct	5
2.	Kilmore industrial precinct	5
3.	Kilmore central business precinct	11
4.	Kilmore central residential precinct	3
5.	Kilmore west residential precinct	3
6.	South-west rural precinct	5
7.	South-west Kilmore rural residential precinct	4
8.	South-east rural precinct	3
9.	Kilmore south residential precinct	4
10.	Kilmore residential and health precinct	4
11.	Recreation precinct	2
12.	Kilmore equine precinct	5
13.	Kilmore East township precinct	2
14.	Kilmore quarry precinct	4
15.	Kilmore East plantation and farming precinct	2
16.	Sunday Creek rural precinct	5
17.	O'Gradys Road rural precinct	3
18.	Broadhurst Creek rural residential precinct	3
19.	Wandong-Heathcote Junction precinct	2
20.	Broadford and Wallan (remainder of study area) precinct	13
TOTAL		**88**

The number of interviewees shown in Table 2-1 varies from that originally proposed in the Consultation Plan due to lack of availability or interest of stakeholders to participate during the consultation period. A total of 66 businesses and 81 landholders were contacted on numerous occasions and invited to participate in the stakeholder consultation process. Of this total of 147 people approached to participate in the interviews, 88 interviews were completed.

2 Methodology

Enterprise Types

Landholders and businesses were divided into six broad land use categories and 14 enterprise types based on the type of activities undertaken within the study area.

Businesses and affected landholders identified during the site visit, and subsequently through discussions with VicRoads, were then assigned to the enterprise types, as shown in Table 2-2.

Table 2-2 Number of interviewees by enterprise type

Primary land use	Enterprise type	No. interviewees
Residential	Township / low density residential	17
	Rural residential	18
Agricultural	Livestock / cropping*	20
	Timber	1
	Horticulture	1
	Other**	3
Commercial	Food, drink and accommodation	4
	Retail	7
	Services	7
	Recreation	2
	Land sales	1
Industrial	Manufacturing	1
	Extractive	1
Education	Primary schools	2
	Secondary schools	2
Health	Hospital	1
TOTAL		**88**

* Includes equine, wool, sheep, cattle, dairy, cropping, grain and timber activities. Unable to provide disaggregated figures as most agricultural landowners are mixed enterprises undertake more than one of these activities.

** Includes agricultural businesses for which the enterprise type was not specified, or which the land was not currently used for any commercial purpose.

A description of each of the 20 land use precincts and a map illustrating the geographic area for each precinct is provided in Section 3.1.

2 Methodology

Impact Type

In order to understand the impacts of the proposed bypass alignments on people in surrounding areas, indirectly affected and unaffected landholders and businesses were also selected. These impact levels are defined in Table 2-3. This was important in order to capture some of the broader economic impacts such as changes to business revenue as a result of changed travel times and reduced traffic flows in Sydney Street. Consequently, landholders and businesses from across Kilmore, Kilmore East, Broadford, Wallan and Wandong-Heathcote Junction were included for the purposes of the consultation.

Table 2-3 Landowner and business impact type

Impact type	Definition	No. interviewees
Directly impacted	One or more proposed bypass alignment passes through part of the property i.e. at least part of the property would be acquired should this route be selected.	27
Indirectly impacted	One or more proposed bypass alignment passes along or very near to at least part of the property boundary, but not land would be acquired should this route be selected.	13
Not impacted	The property is within the study area but is not in close proximity to any of the proposed bypass alignments,	48
TOTAL		**88**

Overall, 88 businesses and landowners were interviewed by URS in order to gain feedback on how each of the five proposed bypass alignments will impact on land uses in the study area, and in turn the regional economy.

2.3.3 Development of Questionnaires for Interviews

Based on the land use categories (refer to Table 2-2) for the interviews and the specific requirements of the task brief (refer to Section 3.2.1 – Identify and consult with key contacts), URS developed questionnaires for use in conducting interviews with various businesses and landholders in each category. A total of five separate questionnaires were developed. All questionnaires were finalised in consultation with VicRoads before commencement of the interviews.

Overall, the questionnaires sought similar information from stakeholders who are directly impacted, indirectly impacted and not impacted, but were varied to take account of the nature of the operations undertaken by landholders and business operators.

With reference to the questionnaire developed for commercial businesses as an example, information was sought about:

- the length of time that the business had been in operation and, if different, about the length of time at its current location and under current ownership and management;
  - length of operation was considered a useful guide on which to assess stakeholders responses
- the share of local customers compared with passing through customers (if applicable);

2 Methodology

- the potential impact on the viability of their businesses
  - stakeholders were asked to rank the impact of each option and associated connection points on a scale of 1 (significantly positive) to 5 (significantly negative) and to give reasons for their ranking
- preferred ranking of options and reasons for these preferences
- any actions which could be taken to reduce any adverse impacts on their business, and/or to increase the beneficial impacts, in the event that their preferred option were selected
  - examples could include providing convenient access points for both pedestrian and vehicles to individual businesses, creating stock and machinery underpasses to reconnect severed agricultural land, installing pedestrian crossings, and installing measures to reduce traffic congestion
- in the event that a non-preferred option were to be selected, any actions that could be taken to reduce any adverse impacts on their business (such as traffic management during construction).

3

Existing and Future Land Uses

This section details some of the key land uses within the study area of the Kilmore-Wallan Bypass Study and how these may be affected by a future bypass. The study area is undergoing significant demographic change, due in part to its close proximity to metropolitan Melbourne and the increasing influences of urban growth on land use in the study area. This demographic change is both a driver of changes to land use and the need for additional road capacity, but may itself be influenced by the construction of a bypass.

3.1 Land Use Precincts

For the purposes of this study URS has divided the study area into 20 land use precincts that each contains common land use and development. A map showing the location of these precincts is provided in Figure 3-1.

A description of the current land use within each precinct follows.

Precinct 1 – North-West Rural Precinct

The North West Rural precinct comprises rural land uses beyond the north-west town boundary of Kilmore. It is bounded by the Broadford-Kilmore Road and Northern Highway (south of the intersection), the Kilmore Industrial Precinct, Highgate Road, Kings Lane, Kilmore Education and Health Precinct, Kilmore-Lancefield Road and McDougalls Road.

This precinct comprises rural land uses on typically large allotments. The Kilmore Wastewater Treatment Facility operated by Goulburn Valley Water is located within this Precinct.

Precinct 2 – Kilmore Industrial Precinct

The Kilmore Industrial Precinct is located on the northern edge of Kilmore, on the western side of the Northern Highway, from Clarke Street and Highgate Road extending north to Costellos Road. This includes the two industrial zoned land parcels that were rezoned as a part of Amendment C79 to the Mitchell Planning Scheme. The Precinct mainly encompasses light industry; a pipe making company and concrete batching facility can be found in the area. Kilmore Creek traverses the Industrial Precinct.

Precinct 3 – Kilmore Central Business Precinct

The Kilmore Central Business Precinct includes the linear commercial areas along Sydney Street (the Northern Highway through the centre of Kilmore) between Bourke Street / Foote Street in the south and Clarke Street in the north. The Precinct generally follows Kilmore Creek and is bounded by Victoria Parade to the east, Melbourne Street (rear of the properties on Sydney Street) to the west, White Street to the west (south of Sydney Street) and by the boundary of properties just north of Rutledge Street to the south. A second parcel of the Kilmore Central Business Precinct is located on the southern edge of town along the Northern Highway (Powlett Street) between Tootle and Green Streets.

Precinct 4 – Kilmore Central Residential Precinct

The Kilmore Central Residential Precinct includes established residential areas in the eastern part of Kilmore, bounded by Clarke Street, East Street, Foote Street and Kilmore Creek. It is adjacent to the Kilmore Golf Course, Cricket Club and Ground and the Racecourse.

3 Existing and Future Land Uses

Precinct 5 – Kilmore West Residential Precinct

The Kilmore West Residential Precinct is located in the western part of Kilmore and includes a range of established urban residential areas, developing residential areas and rural residential areas on the boundary of town. The Precinct includes a range of lot sizes with private road entries to larger estates. It is bounded by Highgate Road and Clarke Street, Kings Lane, the Kilmore Central Business Precinct, and Assumption College. Lancefield-Kilmore Road / Foote Street transects the Precinct.

Precinct 6 – South-West Rural Precinct

The South-West Rural Precinct comprises rural land uses beyond the south-west town boundary of Kilmore, which for the purposes of this assessment, includes all areas to the south and west of McDougalls Road, Butlers Road to Harrington Drive (including the small parcel of rural land south of Harrington Drive), Butlers Road (west to) Curry Road south to Gehreys Lane (to the west of Bindley Court) and east to the Northern Highway.

Precinct 7 – South-West Kilmore Rural Residential Precinct

The South-West Kilmore Rural Residential Precinct comprises rural residential land use bound by Harrington Drive, the rural land to the north west of Melrose Drive (Precinct 6), Butlers Road, Curry Road, Gehreys Lane and the Northern Highway. A small segregated parcel of land to the north-east of the main precinct area is incorporated into Precinct 7 due to its rural residential characteristics. This parcel of land is north of Harrington Drive and east of Butlers Road. Precinct 7 is a low density residential area.

Precinct 8 – South-East Rural Precinct

The South-East Rural Precinct comprises rural land use beyond the south-east boundary of Kilmore, which for the purposes of this assessment, includes all the areas to the east of the Northern Highway and south of the former Kilmore railway reserve to McIvors Road, east of the line north to Tootle Street along the eastern boundary of the residential subdivision, south of Tootle Street and the Recreation Precinct. O'Gradys Road Rural Precinct bounds the Precinct to the east including Bakers Road, and then in a south-east line along the ridge to Broadhurst Creek, then south of Kilmore-Epping Road.

Precinct 9 – Kilmore South Residential Precinct

The Kilmore South Residential Precinct is located in the southern part of Kilmore and includes established residential areas, as well as new subdivisions bounded by the Education and Health Precinct to the north-west, a portion of the Kilmore Central Business Precinct to the west, Monument Hill to the north and rural land to the south and east.

Precinct 10 – Kilmore Education and Health Precinct

The Kilmore Education and Health Precinct is located in the southern part of Kilmore and includes Assumption College, the Kilmore International School, the Kilmore Hospital and St. Patrick's Catholic Primary School. The Precinct is bounded by Butlers Road to the west, Sunderland Street to the east, the residential area north of Harrington Drive to the south (Precinct 9) and Kilmore West Residential Precinct to the north.

3 Existing and Future Land Uses

Precinct 11 – Recreation Precinct

The Recreation Precinct is generally located to the east of Kilmore, and includes recreational areas such as the Kilmore Racecourse, Kilmore Golf Course, Kilmore Cricket Ground and Club and Monument Hill Reserve, and also includes the parkland along Kilmore Creek, which extends into the centre of Kilmore.

Precinct 12 – Kilmore Equine Precinct

The Kilmore Equine Precinct is located to the north-east of Kilmore and includes the Mitchell Planning Scheme defined Kilmore Equine district, and areas of low density/rural residential adjacent to the Kilmore Racecourse. Some facilities included within the Precinct are horse stables and fields, horse training schools and breakers, horse breeding and pony clubs. Dry Creek runs along the eastern edge of the Precinct and the Northern Highway joins the Precinct edge at the western side. To the south the Precinct is bound by Kilmore Central Business Precinct, Kilmore Central Residential Precinct, Recreation Precinct, Kilmore East Precinct and O'Gradys Road Rural Precinct.

Precinct 13 – Kilmore East Township Precinct

The Kilmore East Precinct contains the township of Kilmore East, which is located approximately three kilometres east of Kilmore, on the North Eastern Railway. The precinct is mostly residential, with no industry and limited commercial. Dry Creek runs to the western edge of the Precinct beyond the railway line. To the south and west, the Precinct is bound by the O'Gradys Road Rural Precinct. The precinct contains the Kilmore East Railway Station.

Precinct 14 – Kilmore Quarry Precinct

The Kilmore Quarry Precinct is located to the north-east of Kilmore East, and contains the Hanson operated Kilmore Quarry, and surrounding buffer, as defined by the Special Use Zone 1 in the Mitchell Planning Scheme. The land surrounding the quarry is predominately rural, with a railway line running along the western edge of the Precinct.

Precinct 15 – Kilmore East Plantation and Farming Precinct

The Kilmore East Plantation Precinct contains three softwood timber plantations of approximately 330 hectares, located between the North Eastern Railway and the Hume Freeway in the eastern part of the study area. The western boundary of the Precinct generally follows Dry Creek. The Precinct is bounded to the north by the Sunday Creek Rural Precinct. Some farming zoned land exists in the southern areas.

Precinct 16 – Sunday Creek Rural Precinct

The Sunday Creek Rural Precinct is located in the north east of the study area between the Kilmore East Quarry Precinct and the Kilmore East Plantation Precinct. The land is sparse and the main land use in the area is farming. Sunday Creek itself runs across the north east boundary of the Precinct, crossing the Hume Freeway and through to Precinct 20.

3 Existing and Future Land Uses

Precinct 17 – O'Gradys Road Rural Precinct

The O'Gradys Road Rural Precinct is located south of Kilmore East on the western side of the North-Eastern Railway. The land within the Precinct is mainly used for farming, with a large percentage of the land used by the equine industry.

Precinct 18 – Broadhurst Creek Rural Residential Precinct

The Broadhurst Creek Rural Residential Precinct is located in the south-east of the study area. Broadhurst Creek runs adjacent to the Precincts northern edge.

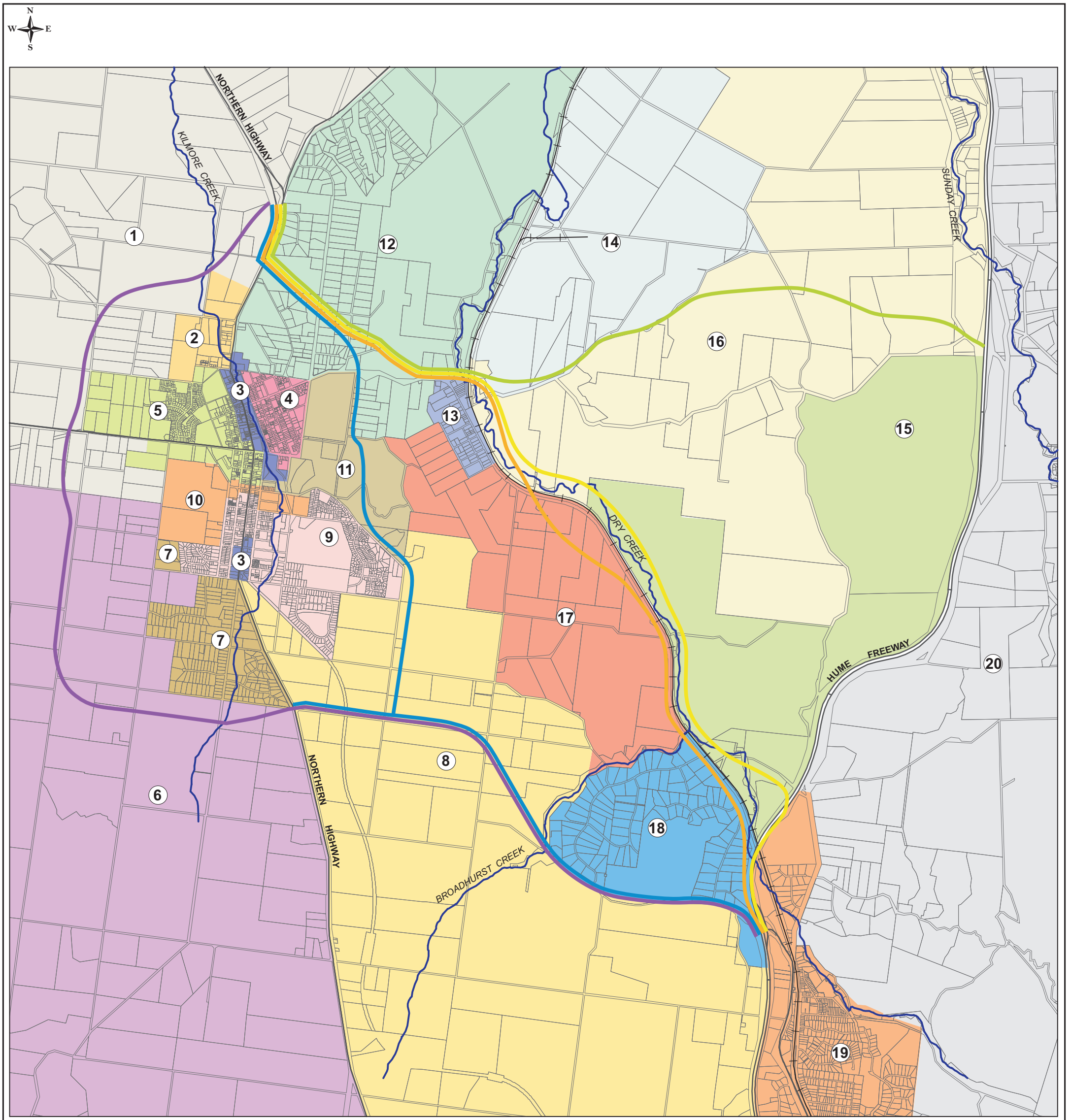
The Precinct is bound by the North Eastern Railway and Epping-Kilmore Road, including the caravan park on the southern side of Epping-Kilmore Road adjacent to the Hume Freeway interchange. The Broadhurst Creek Precinct is a developing low density rural residential area.

Precinct 19 – Wandong-Heathcote Junction Precinct

The Wandong-Heathcote Junction Precinct is located adjacent to the south-eastern connection to the Hume Freeway, which is the termination point of four out of five bypass options. The Precinct comprises the townships of Wandong and Heathcote Junction, which are located on the eastern side of the Hume Freeway and North Eastern Railway.

Precinct 20 – Broadford and Wallan (remainder of study area) Precinct

Precinct 20 includes the townships of Broadford, Wallan and Clonbinane (i.e. the remainder of the study area) which are beyond the extent of the Precinct Map however will be included as part of the study. These townships are not directly affected by the options but are still within the Kilmore Bypass study area. Landholders and business operators from these nearby towns may be indirectly impacted by the bypass options. Broadford has an industrial and commercial focus, with some recreation facilities such as a motorbike track. Wallan is mainly residential and acts as a satellite town of Melbourne. Clonbinane is a small township located to the north east of Wandong where the Sunday Creek Road bypass option meets the Hume Highway.



KEY:

- WESTERN OPTION
- QUINNS ROAD OPTION
- DRY CREEK OPTION
- O'GRADYS OPTION
- SUNDAY CREEK ROAD OPTION
- MELBOURNE-SYDNEY RAILWAY

1 NORTH-WEST RURAL PRECINCT
2 KILMORE INDUSTRIAL PRECINCT
3 KILMORE CENTRAL BUSINESS PRECINCT
4 KILMORE CENTRAL RESIDENTIAL PRECINCT
5 KILMORE WEST RESIDENTIAL PRECINCT
6 SOUTH-WEST RURAL PRECINCT
7 SOUTH-WEST KILMORE RURAL RESIDENTIAL PRECINCT
8 SOUTH-EAST RURAL PRECINCT
9 KILMORE SOUTH RESIDENTIAL PRECINCT
10 KILMORE EDUCATION AND HEALTH PRECINCT
11 RECREATION PRECINCT
12 KILMORE EQUINE PRECINCT
13 KILMORE EAST TOWNSHIP PRECINCT
14 KILMORE QUARRY PRECINCT
15 KILMORE EAST PLANTATION AND FARMING PRECINCT
16 SUNDAY CREEK RURAL PRECINCT
17 O'GRADYS ROAD RURAL PRECINCT
18 BROADHURST CREEK RURAL RESIDENTIAL PRECINCT
19 WANDONG-HEATHCOTE JUNCTION PRECINCT
20 REMAINDER OF STUDY AREA INCLUDING BROADFORD AND WALLAN PRECINCT

VICROADS

LAND USE PRECINCTS

URS

LAND USE AND REGIONAL ECONOMY STUDY FOR THE KILMORE WALLAN BYPASS

Figure: 1

File No: **Land use precincts Fig 1.cdr** Drawn: **LLB** Approved: **AM** Date: **13.11.2012** Rev. **A** A3

3.2 Demographic Change

Demographic data was compiled for the study by SGS Economics and Planning on behalf of AECOM for the purposes of the Transport Modelling and Economic Analysis conducted as part of the Kilmore-Wallan Bypass Planning Study. These forecasts are based on data prepared by Department of Planning and Community Development. As shown in Figure 3-2 the population of the townships of Kilmore and Wallan, as well as Mitchell Shire as a whole, is forecast to grow significantly over the coming decades.

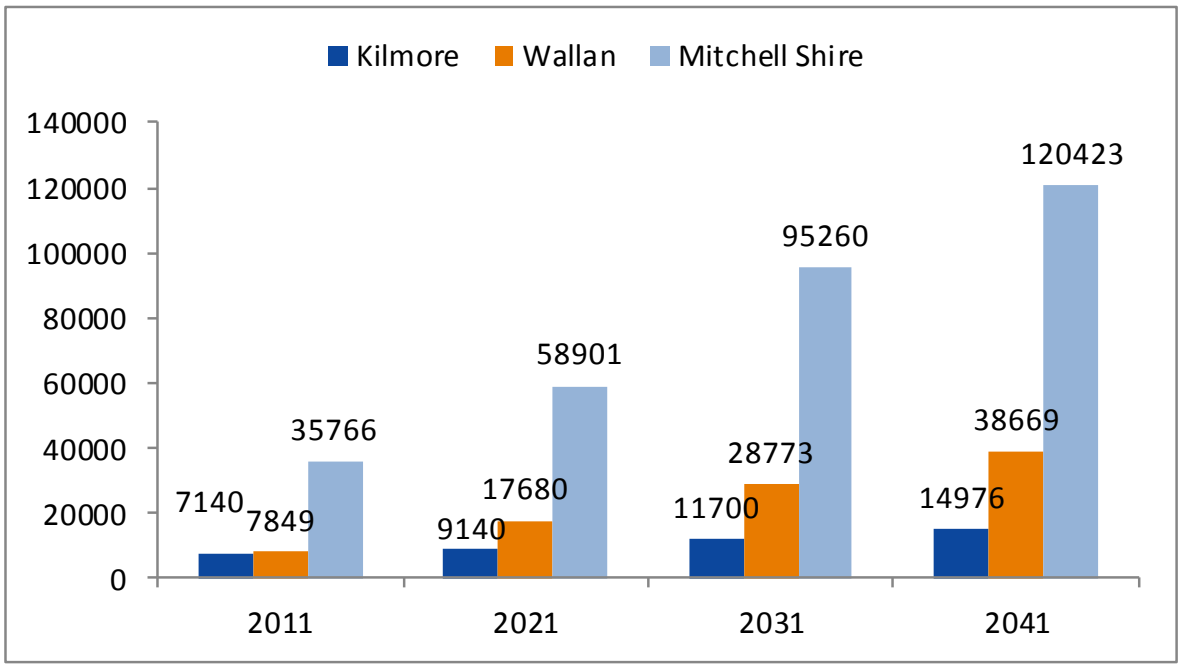


Figure 3-2 Forecast population growth for the study area (Source: AECOM (2012))

Population growth is a consequence of Kilmore and Wallan's attractiveness as commuter towns, providing rural living, with access to Melbourne for work. It is anticipated that Wallan will receive the majority of the population growth within the Shire. Demographic indicators also show that Wallan has attracted young families to the area, with a higher than average number of families with children compared to the rest of Australia (Source: ABS).

Wallan has been included in Melbourne's Northern Growth Corridor as part of the Logical Inclusions Process. This effectively shifted the Urban Growth Boundary to include the township of Wallan, in recognition of the current and anticipated population growth in this area.

The impacts of this increased population are twofold. Firstly, it will increase the volume of commuter traffic between Kilmore and Wallan and Melbourne, and secondly the volume of traffic on the local road networks of Kilmore and Wallan. The need for increased road capacity is one of the key drivers behind the decision to construct a bypass of Kilmore and Wallan.

3.3 Urban Character

Settled in the mid-nineteenth century, Mitchell Shire is one of the oldest human settlements in Victoria. The more recent rapid population growth of Wallan, and to a lesser degree Kilmore, has created pressure for land use change.

Land use surrounding the Kilmore town centre is primarily traditional 1,000 square metres (quarter acre) residential blocks. Generally, the blocks become larger in size beyond the town centre. New subdivisions are located to the west of the township on the Kilmore-Lancefield Road as well as to the south-east along The Elms Boulevard and off Anderson Road. Demand for additional residential (including medium-density residential) and rural residential land in Kilmore will likely continue to be met in these areas owing to the geographic constraints to the north and east of the township. This is consistent with the Kilmore Township Structure Plan set out in Cl. 21.05-3 of the Mitchell Planning Scheme.

Located in the Hume growth corridor and recently included within metropolitan Melbourne's Urban Growth Boundary, demand for residential land in Wallan is forecast to be significant over the following decades. Beyond the retail and commercial centre of Wallan there are residential subdivisions on previously vacant rural land on the fringes of town in all directions. These include Wallara Waters Estate to the south of Wallan-Whittlesea Road and Spring Ridge Estate, located west of the Northern Highway.

This is consistent with the Wallan-Beveridge Township Structure Plan set out in Cl. 21.05-3 of the Mitchell Planning Scheme. While growth in Wallan is constrained by surrounding natural features, there is sufficient land available at Wallan for the growth forecast shown in Figure 3-2.

Hidden Valley Estate, located to the east of the Northern Highway between Kilmore and Wallan will also accommodate some of the additional demand for residential land into the future.

Given the relatively small area of land required by each of the proposed bypass alignments, human settlement in the areas described above will not be constrained by the construction of a bypass. In fact, growth will likely be facilitated by a bypass, which would improve access for commuter traffic.

3.4 Commercial Land Uses

3.4.1 Equine Activities

Equine activities are a popular activity within the Kilmore-Wallan area. These activities are an important part of the local economy, attracting a number of visitors to the area for thoroughbred and harness racing as well as a range of other equestrian-related events. These activities support a number of businesses in the study area, which form a subset of the broader agriculture, tourism and other commercial activities discussed in subsequent sections. While many of these activities, especially stabling and training activities, are located in the area subject to the Design and Development Overlay — Schedule 3 (Kilmore Equine Lifestyle Precinct), they are not necessarily contained to this area. Such businesses include:

- stabling facilities
- stud farms
- training businesses

- equestrian supplies retailers
- equestrian veterinary clinics
- recreation and tourism businesses e.g. Kilmore Racing Club

As subsets of the aforementioned business categories, potential benefits and impacts of the proposed alignment options on these businesses are considered in the following sections. However, with all of the eastern options passing through the designated Equine Precinct, these businesses as a group may be more exposed should one of these alignments be the selected option. In particular, businesses requiring the movement and/or stabling of horses will likely be most sensitive to a potential bypass. Appropriate noise and access mitigation measures (such as the planned horse, pedestrian and bicycle underpass to the north of the Kilmore Racing Club) should be considered and factored into the costs of construction.

Impacts on the Kilmore Racing Club are also discusses in Sections 0 and 6.4.5.

3.4.2 Agriculture

Settlement in what is now Mitchell Shire was largely driven in the nineteenth century by the plentiful water supply and fertile volcanic soil, making the area suitable for agricultural activities.

Currently, agricultural land uses are surround the residential zones of the Kilmore township, with the exception of the land zoned for Special Use to the north-east, which is currently occupied by Hanson Construction Materials. Agricultural uses around Wallan however, are mostly located to the north and west of the township.

While agriculture is one of the key industries in the region (refer to Figure 4-1), The amount of land zoned for farming that would be lost is similar for each proposed bypass alignment and negligible for all proposed bypass alignments in a regional sense.

3.4.3 Tourism

Kilmore's tourism activities located in the study area are mostly in the form of accommodation providers. Most of these are located in central Kilmore. These are unlikely to be affected by any land use changes resulting from any of the proposed bypass alignments.

Other tourism areas / activities in the area include:

- The racecourse;
- The golf course;
- The equine industry, including riding schools;
- The Old Kilmore Gaol; and
- Monument Hill.

3.4.4 Other commercial

The main street of Kilmore is formed by the Northern Highway. The main retail activity centre of Kilmore is located between Clarke and Foote Streets. This precinct comprises retail shops, hotels, banks, restaurants, cafes and tourist facilities.

A business precinct is located on the southern edge of town along the Northern Highway (Powlett Street) between Tootle and Green Streets.

A number of highway type businesses (such as bulky goods) including a large car dealership are also located on the Northern Highway to the south of the township. An industrial precinct located north of Clarke Street on the western side of the Northern Highway contains a range of industrial warehouses and a concrete batching plant.

The urban centre of Wallan includes a retail precinct located primarily along the Northern Highway between William and Duke Streets and includes a shopping centre and service station.

These commercial activities are unlikely to be affected by any land use changes resulting from any of the proposed bypass alignments.

3.5 Native Vegetation

Each of the proposed bypass alignments pass through areas that support native vegetation species. One of the key measures of environmental impact is the area of vegetation designated as being of very high conservation significance under the *Flora and Fauna Guarantee Act 1987*. Based on the findings of Ecology and Heritage Partners, the area of land containing significant vegetation proposed for removal by each proposed bypass alignment are not significantly different. However the O'Gradys Road, Quinns Road and Sunday Creek Road Options would have greater vegetation impacts than the remaining two options (see Table 3-1). This is of relevance to the regional economy assessment as, should it be determined by the Minister that an EES is necessary, this would add to the total cost of constructing the O'Gradys Road, Quinns Road and Sunday Creek Road Options comparatively to the Dry Creek and Western Options.

Table 3-1 Vegetation currently proposed for removal

Alignment option	Vegetation proposed for removal	
	Habitat hectares*	Hectares of very high conservation significance
Dry Creek	4.27	7.84
O'Gradys Road	9.92	17.65
Quinns Road	9.09	14.30
Sunday Creek Road	12.85	15.72
Western	4.7	5.62

Source: Ecology and Heritage Partners

* Calculated by multiplying the habitat zone (in hectares) by the habitat score (based on the quality of the vegetation relative to the EVC benchmark) to determine the quality and quantity of vegetation.

4

Overview of Regional Economic Activities

In order to understand the relative impacts of the five proposed bypass alignments, an understanding of current economic activities undertaken in the region is necessary. The following sections illustrate the base case scenario with regards to key industries, industry of employment by occupation and highest level of educational attainment. This will inform the assessment of potential impacts of a proposed bypass on the regional economy.

Data for Mitchell Shire from the 2011 Census was unavailable at the time of writing. Data from the 2006 Census was used in lieu of the most current data; however this is adequate in terms of providing an overview of regional economic activities relative to those of the state of Victoria.

4.1 Key Industries

As illustrated in Figure 4–1, the mix of industries in the region is broadly consistent with the mix across Victoria, with some exceptions. The exceptions are the greater proportion of manufacturing, construction, transport, postal and warehousing businesses in Mitchell Shire compared with Victoria.

The importance of these sectors is likely to be due to the close proximity to metropolitan Melbourne, a major market for their outputs, as well as the continued strong growth in population and availability of a labour force with the required skills and expertise. These attributes, in turn, are reinforced by the ready access by businesses to the national rail and road transport network for both inputs and outputs. Any improvement in access to this network would be likely to enhance the relative importance of these industry sectors because of their dependence on low-cost, efficient transport services.

By contrast, the proportion of businesses engaged in agriculture and property and business services are less than that for Victoria. Agricultural businesses, for example comprise approximately 6% of local industries in Mitchell Shire compared with 10% for Victoria, with the main form of agricultural activity being cropping and grazing often on multi-enterprise properties.

Similarly, the tourism industry (represented by accommodation and food service businesses) comprises only 3% of the economy of Mitchell Shire, slightly more than that for Victoria.

The contributions of agriculture and tourism should not be used to not imply that these sectors are not important in their own right. However, in terms of seeking to determine the best performing alignment for the Kilmore-Wallan bypass, the impact of the different options on the three dominant industry sectors should be afforded more consideration as it is the impact of a bypass on these sectors which will have the greatest impact on the regional economy (refer to Section 6.4.3 for a discussion of annual travel-time savings assigned with the five proposed alignments).

4 Overview of Regional Economic Activities

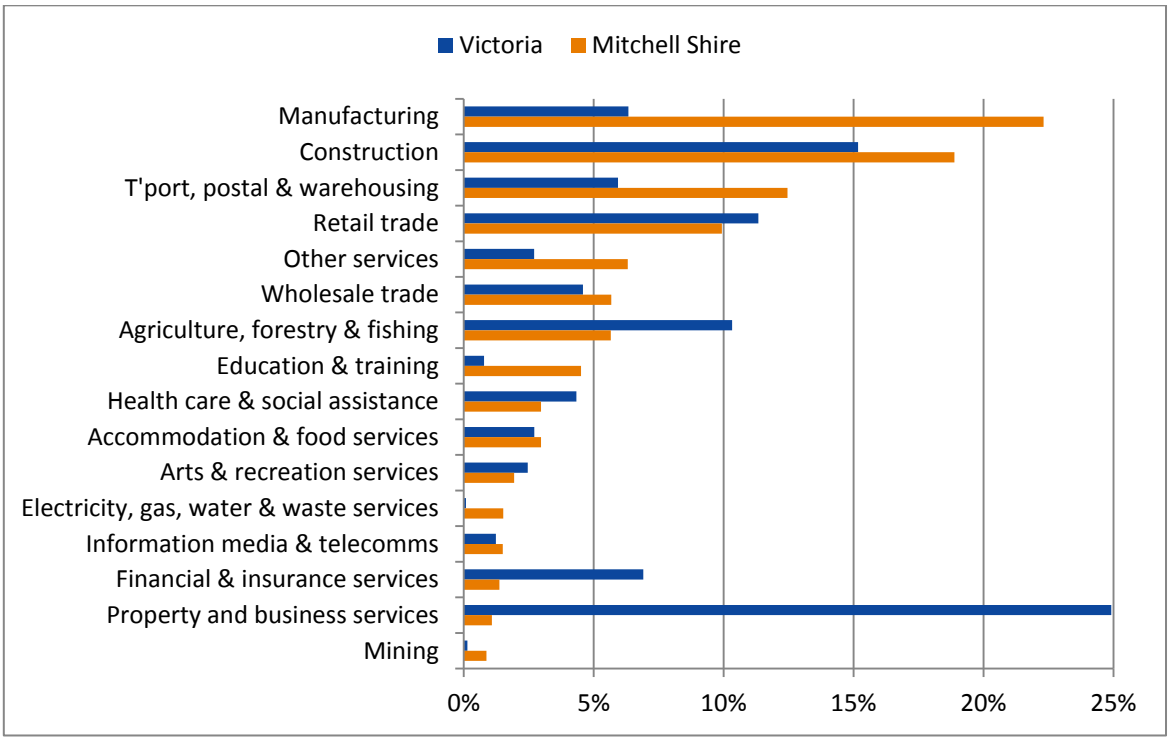


Figure 4-1 Business composition by industry, June 2006 (Source: ABS, Census data 2006)

Agricultural businesses in Mitchell Shire comprise approximately 6% of local industries compared with 10% across Victoria. The anticipated loss of agricultural land as a result of the bypass on the overall regional economy will therefore be minimal.

Similarly, the tourism industry (represented by accommodation and food service businesses) comprises only 3% of the economy of Mitchell Shire. As such, any impact on this sector by the proposed bypass will have negligible impact on the regional economy.

4.2 Employment

Table 4-1 shows the industry of employment by occupation in the Mitchell Shire recorded in 2006. While data from the 2011 Census was unavailable at the time of writing, significant change in the employment structure of the regional economy since the 2006 Census data is not expected. Over 50% of employment within the Shire is in the public administration and safety, retail trade, education and training, health care and social assistance industries. With the exception of retail trade, these industries are unlikely to be affected by the proposed bypass.

Most of the retail trade located along the Northern Highway is in central Wallan and Kilmore. As such, many of these businesses are currently negatively impacted by the poor safety and amenity of these areas as a result of the volume of traffic, especially heavy vehicles, using the Northern Highway. Reduced traffic volumes resulting from the proposed bypass would likely encourage more pedestrian traffic, benefiting retailers in central Kilmore and Wallan. This may in turn influence the retail and commercial business types located in the main streets of these townships.

4 Overview of Regional Economic Activities

The split of occupations across industry sectors is relatively even in Mitchell Shire. This means the regional workforce is resilient to change, with no one occupation dominating the workforce.

Any change in employment opportunities resulting from the proposed bypass will therefore be more readily absorbed by the other economic activities. In addition, the high proportion of the local population working in the metropolitan area will have improved access as a result of the construction of the bypass.

4 Overview of Regional Economic Activities

Table 4-1 Industry of employment by occupation, Mitchell Shire (LGA), June 2006

Industry sector	Number of employees									
	Managers	Professionals	Technicians & trades workers	Community & personal service workers	Clerical & administrative workers	Sales workers	Machinery operators & drivers	Labourers	TOTAL	Proportion of total
Public administration & safety	241	219	63	410	200	12	126	39	**1,310**	**16%**
Retail trade	187	26	106	13	58	658	23	143	**1,214**	**14%**
Education & training	54	561	33	140	67	3	3	47	**908**	**11%**
Health care & social assistance	36	330	29	258	134	0	7	61	**855**	**10%**
Manufacturing	98	42	137	7	62	44	84	278	**752**	**9%**
Construction	56	4	236	8	92	3	49	119	**567**	**7%**
Accommodation & food services	96	0	75	113	13	60	4	139	**500**	**6%**
Agriculture, forestry & fishing	298	6	32	0	20	7	11	98	**472**	**6%**
Transport, postal & warehousing	46	6	16	8	101	25	193	7	**402**	**5%**
Other services	22	26	193	28	41	7	10	23	**350**	**4%**
Professional, scientific & technical services	15	86	30	0	73	0	3	8	**215**	**3%**
Wholesale trade	29	3	18	0	24	45	15	42	**176**	**2%**
Administrative & support services	3	19	28	3	23	3	6	78	**163**	**2%**
Arts & recreation services	18	5	44	36	11	3	0	42	**159**	**2%**

4 Overview of Regional Economic Activities

Industry sector	Number of employees									
	Managers	Professionals	Technicians & trades workers	Community & personal service workers	Clerical & administrative workers	Sales workers	Machinery operators & drivers	Labourers	TOTAL	Proportion of total
Rental, hiring & real estate services	18	4	5	3	21	52	0	8	**111**	**1%**
Financial & insurance services	16	12	0	0	58	3	3	0	**92**	**1%**
Information media & telecommunications	8	13	18	0	5	10	5	5	**64**	**1%**
Mining	9	0	6	0	3	0	32	3	**53**	**1%**
Electricity, gas, water & waste services	3	0	11	0	6	3	23	3	**49**	**1%**
TOTAL	**1,253**	**1,362**	**1,080**	**1,027**	**1,012**	**938**	**597**	**1,143**	**8,412**	
Proportion of total	**15%**	**16%**	**13%**	**12%**	**12%**	**11%**	**7%**	**14%**		

Source: ABS, Census data 2006

4.3 Education and Qualifications

Figure 4-2 shows the highest level of education attained by residents of Mitchell Shire compared with Victoria. This figure shows the education levels within Mitchell Shire are broadly consistent with the levels across Victoria. Approximately 37% of both the Mitchell Shire and Victoria as a whole have completed at least a Certificate-level education. This indicates the local population is a relatively highly educated one, and will therefore adapt readily to any changes to the regional economy resulting from the proposed bypass.

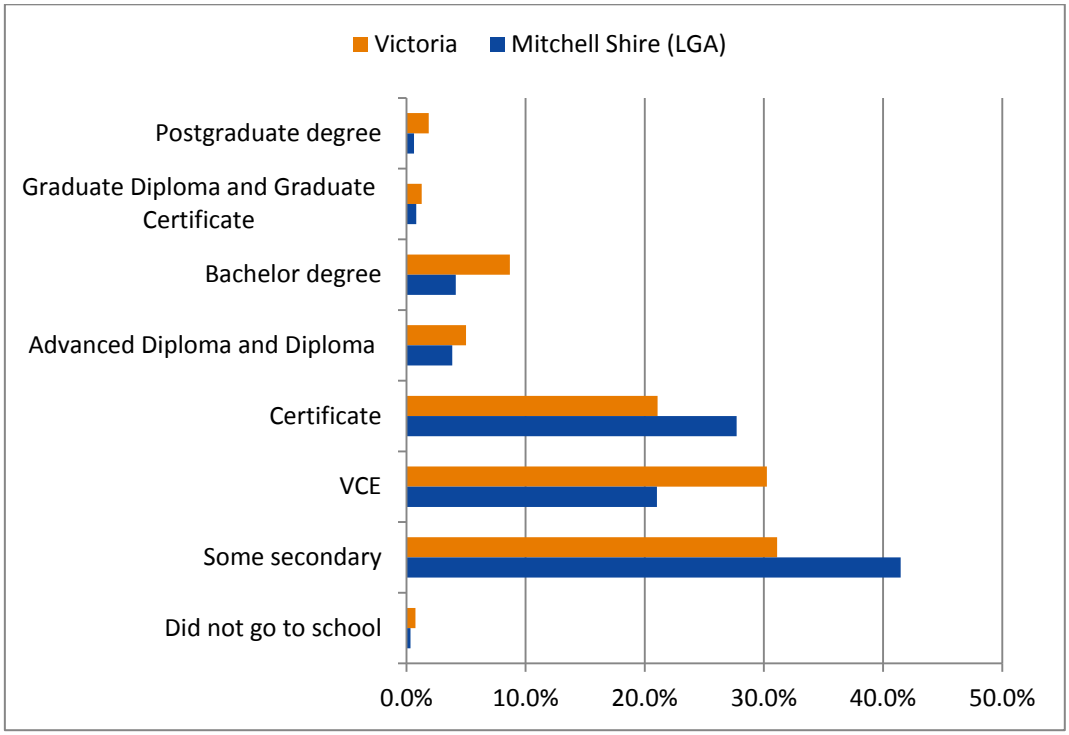


Figure 4-2 Highest level of education attained, Victoria and Mitchell Shire, June 2006 (Source: ABS, Census data 2006)

5

Current Planning Controls, Policy and Strategy

The key pieces of Commonwealth and State legislation that apply to current planning controls, policy and strategy of relevance to the land use assessment of the proposed Kilmore-Wallan Bypass alignments include:

- *Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*
- *Environment Effects Act 1978 (State)*
- *Land Acquisition and Compensation Act 1986 (State)*
- *Planning and Environment Act 1987 (State)*

The compliance of the proposed bypass alignments with these Acts is discussed below.

5.1 Commonwealth Legislation

5.1.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* deals with matters of national environmental significance. Actions (i.e. works or activities) are referred to the Commonwealth Environment Minister under the EPBC Act if they are deemed to be a 'controlled action'. Controlled actions are those that have a significant impact on a matter of national environmental significance. Such matters include Ramsar wetlands of national significance, threatened species and ecological communities and migratory species. The Minister then assesses what level of assessment is required, which may include an Environmental Impact Assessment (EIS).

According to information provided by Ecology and Heritage Partners, the study area contains potential suitable habitat for several species listed under the EPBC Act. The requirement for an EPBC Act referral to the Minister should be determined pending the outcome of targeted surveys for these species.

Should an EIS be required for any of the proposed bypass alignments, this would become an additional construction cost, together with the costs of any actions required to reduce the environmental impacts to acceptable levels. This may, for example, take the form of changing the proposed alignment at a particular location to avoid potential harm to listed matters of national environmental significance. However, the cost of preparing an EIS relative to other construction costs is expected to be minimal and therefore not anticipated to be a key determinant of the preferred alignment.

5.2 State and Local Government Planning Controls, Policies and Strategies

5.2.1 Environment Effects Act 1978

Projects such as the Kilmore-Wallan Bypass are referred to the Victorian Minister for Planning under the *Environment Effects Act 1987*. The Minister is then responsible for determining whether an Environment Effects Statement (EES) is required. A number of triggers can result in the referral of an activity to the Minister for a decision on the need for an EES, one such trigger being the removal of 10 hectares or more of vegetation of very high conservation significance. Should it be determined that an EES is required, this, combined with the costs of securing the required offsets for any native vegetation lost, would contribute to the construction costs of these alignments.

5 Current Planning Controls, Policy and Strategy

Where a project is a controlled action under the EPBC Act (Section 5.1.1) and an EES is also required, a single assessment process can be applied to meet both the Victorian and Commonwealth Government requirements under the bilateral agreement set out in section 45 of the EPBC Act, minimising the cost to VicRoads. The Ministerial guidelines for assessment of Environment Effects under the *Environment Effects Act 1978* provides direction for the coordination of the EES process with the planning scheme assessment process to facilitate efficient satisfaction of these two legislative requirements. URS understands that VicRoads is currently in the process of preparing an EES Referral.

5.2.2 Land Acquisition and Compensation Act 1986

The process under which freehold land can be compulsorily acquired is set out in the *Land Acquisition and Compensation Act 1986*. Under this Act, land required for a public purpose can be acquired by State Government Departments and Agencies and a compensation payment is determined for the landowner. Acquisition can be done either compulsorily or by negotiation. The cost of acquiring land then becomes a construction cost of the overall project.

The *Land Acquisition and Compensation Act 1986* provides:

- The procedures for the compulsory or negotiated acquisition of land; and
- The procedures for the determination of compensation.

5.2.3 Planning and Environment Act 1987

The *Planning and Environment Act 1987* establishes the framework for planning the use, development and protection of land in Victoria. This Act enables the preparation of Planning Schemes by local governments in their role as Planning Authority, for the control of land use and development.

Mitchell Shire Council is the relevant responsible authority for the administration of the Planning Scheme in accordance with the *Planning and Environment Act 1987*. VicRoads will liaise with Council regarding the responsible authority for the PSA required to implement the Kilmore-Wallan Bypass project and this responsibility has not been determined at this stage.

An assessment of the consistency of each of the five proposed bypass alignments with the relevant clauses of the Mitchell Planning Scheme is provided in Section 5.2.4.

5.2.4 Summary of Mitchell Shire Planning Scheme

Under the provisions of the current Mitchell Planning Scheme, some works associated with the construction of the Kilmore-Wallan Bypass would require a planning permit.

The Mitchell Planning Scheme contains a number of key components as outlined below:

- The **State Planning Policy Framework (SPPF)** is a component of all planning schemes, which outlines planning objectives of State importance which must be considered when land use and development decisions are made.
- The **Local Planning Policy Framework (LPPF)** identifies long term directions for land use and development within Mitchell Shire and provides the rationale for zone and overlay requirements and particular provisions of Planning Schemes.

5 Current Planning Controls, Policy and Strategy

- The **Municipal Strategic Statement (MSS)** is a strategic statement which outlines the key strategic planning, land use and development objectives specific to the municipality, and provides strategies and actions for achieving these objectives. The MSS forms a key part of the LPPF. The MSS provides the strategic basis for the application of zones, overlays and particular provisions in the planning scheme and decision making by the Responsible Authority.

The Zone and Overlay requirements and Particular Provisions of the Planning Scheme show:

- The type of use and development allowed in each zone.
- Additional requirements for buildings and works on land that is affected by an overlay.
- Requirements for any specific uses and development.

This section provides an assessment of the proposed Kilmore-Wallan Bypass, against both the SPPF and the LPPF.

5.2.4.1 State Planning Policy Framework

The State Planning Policy Framework (SPPF) sets out planning policies that apply to all land in Victoria. Every planning scheme in Victoria contains the SPPF and the policies must be considered when considering applications.

The relevant Clauses and Objectives of the SPPF applicable to the Kilmore-Wallan Bypass Land Use Impact Assessment are outlined in detail in Table 5-1 with an assessment of compliance against each clause presented.

5 Current Planning Controls, Policy and Strategy

Table 5-1 Compliance of Kilmore-Wallan Bypass Project with State Planning Policy Framework (SPPF)

Clause	Objective	Assessment of Compliance
Clause 11 — Settlement	***To anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure***	
11.05-1 Regional settlement networks	*To promote the sustainable growth and development of regional Victoria through a network of settlements identified in the Regional Victoria Settlement Framework plan.*	The impact of each of the five proposed bypass alignments is equal with respect to this clause.
11.05-2 Melbourne's hinterland areas	*To manage growth in Melbourne's hinterland, the area immediately beyond metropolitan Melbourne and within 100 kilometres of the Melbourne's Central Activities District.*	The impact of each of the five proposed bypass alignments is equal with respect to this clause.
11.05-3 Rural productivity	*To manage land use change and development in rural areas to promote agriculture and rural production.*	
Clause 12 — Environmental and landscape values	***To protect the health of ecological systems and the biodiversity they support (including ecosystems, habitats, species and genetic diversity) and conserve areas with identified environmental and landscape values***	
12.01-1 Protection of habitat	*To assist the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals and control of pest plants and animals.*	All options would result in a loss of native vegetation of between 4 and 13 habitat hectares.
12.01-2 Native vegetation management	*To achieve a net gain in the extent and quality of native vegetation.*	All options would result in a loss of native vegetation of between 4 and 13 habitat hectares resulting in the following Net Gain[1] targets (source: Ecology and Heritage Partners): Dry Creek: 8.14 HabHa O'Gradys Road: 18.87 HabHa Quinns Road: 16.62 HabHa Sunday Creek Road: 21.56 HabHa Western: 7.98 HabHa Costs of vegetation offsets have been included in the costs of construction of the respective bypass options.

5 Current Planning Controls, Policy and Strategy

Clause	Objective	Assessment of Compliance
12.04-1 Environmentally sensitive areas	*To protect and conserve environmentally sensitive areas.*	All options would result in the loss of between 5 and 18 ha of vegetation classed as having very high conservation value.,
12.04-2 Landscapes	*To protect landscapes and significant open spaces that contribute to character, identity and sustainable environments.*	The proposed Quinns Road Option is in close proximity to Monument Hill and the Kilmore Racing Club, that are significant contributors to the local character and identity. Measures to mitigate any impact on these areas will need to be factored into costs of construction.
Clause 13 — Environmental Risk	***To adopt a best practice environmental management and risk management approach which aims to avoid or minimise environmental degradation and hazards. Planning should identify and manage the potential for the environment, and environmental changes, to impact upon the economic, environmental or social well-being of society.***	
13.03-2 Erosion and landslip	*To protect areas prone to erosion, landslip or other land degradation processes*	Each of the proposed bypass alignments would be designed to meet current geotechnical standards.
13.04-1 Noise abatement	*To assist the control of noise effects on sensitive land uses.*	Each of the proposed bypass alignments would be designed to meet current noise guidelines.
Clause 14 — Natural Resource Management	***To assist in the conservation and wise use of natural resources including energy, water, land, stone and minerals to support both environmental quality and sustainable development.***	
14.01-1 Protection of agricultural land	*To protect productive farmland which is of strategic significance in the local or regional context.*	The availability of land for agricultural activities is not limited in supply, therefore any productive land lost as a result of the construction of any of the proposed bypass alignments is not of strategic significance.
14.01-3 Forestry and timber production	*To facilitate the establishment, management and harvesting of plantations, and harvesting of timber from native forests.*	While the Dry Creek Road option would necessitate acquisition of land from Midway Plantations Pty Ltd this is a commercial operation not restricted to its current location.
14.02-1 Catchment planning and management	*To assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment.*	Each of the proposed bypass alignments would be designed to meet current environmental standards.

5 Current Planning Controls, Policy and Strategy

Clause	Objective	Assessment of Compliance
Clause 15 — Built Environment and Heritage	***To ensure all new land use and development appropriately responds to its landscape, valued built form and cultural context, and protect places and sites with significant heritage, architectural, aesthetic, scientific and cultural value***	
15.03-1 Heritage conservation	*To ensure the conservation of places of heritage significance.*	None of the proposed bypass alignments pass through areas subject to a Heritage Overlay in the Mitchell Planning Scheme.
15.03-2 Aboriginal cultural heritage	*To ensure the protection and conservation of places of Aboriginal cultural heritage significance.*	Each of the proposed bypass alignments would be designed to comply with current Aboriginal cultural heritage regulations. Any management plans and/or mitigation measures required would be included in the cost of constructing any of the proposed options.
Clause 19 — Infrastructure	***To recognise social needs by providing land for a range of accessible community resources, such as education, cultural, health and community support (mental health, aged care, disability, youth and family services) facilities.***	
19.02-2 Education facilities	*To assist the integration of education facilities with local and regional communities.*	All proposed bypass alignments will enhance accessibility of local education facilities within the local and regional community.

1. Note: Net gain targets differ from Habitat Hectares proposed for removal (i.e. as shown in Table 3-1) as they represent the product of the number of Habitat Hectares and a measure of the quality of the vegetation proposed for removal.

5 Current Planning Controls, Policy and Strategy

Settlement

Clause 11 sets out objectives to be considered when planning for human settlements across Victoria. These include fairly broad objectives relating to the promotion and management of sustainable development in metropolitan and regional areas of the state. Clauses 11.05-1 Regional settlement networks, 11.05-2 Melbourne's hinterland areas and 11.05-3 Rural productivity are relevant to the scope of this study. However, the broad nature of these statements means that the relative impact of each of the five proposed bypass alignments is essentially equal.

The five proposed options would not differ in their impact at a state level with respect to these clauses. For example, with respect to the objective of the Rural productivity clause – to manage land use change and development in rural areas to promote agriculture and rural production – the area of agricultural land lost to each of the proposed alignments would be a negligible proportion of land available for agriculture in the region, let alone the state.

The five proposed bypass alignments are considered to be consisted with the objective of this clause.

Environmental and Landscape Values

Clause 12 sets out objectives established to protect landscapes with important habitat and natural amenity values at a state level. These aim to ensure that valuable and sensitive landscapes are considered in any planning decisions.

Clauses 12.01-1 Protection of habitat, 12.01-2 Native vegetation management, 12.04-1 Environmentally sensitive areas and 12.04-2 Landscapes are relevant to the scope of this study. All options would result in the loss of between 5 and 18 hectares of native vegetation classed as having a very high conservation value under the *Flora and Fauna Guarantee Act 1987* and would require offsets as determined in accordance with Victoria's Native Vegetation Framework (2002).

Environmental Risk

Clause 13 sets out objectives established to manage environmental risks resulting from planning decisions in Victoria. Clauses 13.03-2 Erosion and landslip, and 13.04-1 Noise abatement are relevant to the scope of this study. Each of these issues is the subject of studies being undertaken by separate consultancies concurrently with this study. The results of these investigations will ensure that the preferred bypass alignment will be designed to meet the current relative standards and policies. These factors are therefore not key determinants for this assessment except to the extent that they impact on the relative costs of construction of the different alignments.

Natural Resource Management

Clause 14 sets out objectives to protect Victoria's natural resources. In particular, clauses 14.01-1 Protection of agricultural land, 14.01-3 Forestry and timber production and 14.02-1 Catchment management and planning are relevant to the scope of this study.

The area of land used for agriculture production lost as a result of any of the proposed alignments would be of a similar area for all proposed alignments and is minor in the overall context of the Mitchell region and wider state economy. The Dry Creek Option would have a greater impact on timber production in the area, although this would nonetheless also be minimal in the regional and state context.

5 Current Planning Controls, Policy and Strategy

With respect to catchment planning and management, all potential alignments can be designed in consultation with the relevant authorities and in line with current design standards. Accordingly, these aspects are not expected to be a key determinant for this assessment, except to the extent that they may impact on the relative costs of construction.

Built Environment and Heritage

Clause 15 sets out objectives that protect places of indigenous and non-indigenous cultural heritage significance. A separate cultural heritage study is being undertaken by another consultancy concurrently with this study. The results of this investigation will identify any issues that may need to be addressed for each of the five proposed alignments. Any resulting mitigation measures would be reflected in the relative costs of construction.

Infrastructure

Clause 19.02-2 Education facilities aims to assist the integration of education facilities with local and regional communities. All proposed bypass alignments will enhance accessibility of local education facilities within the local and regional community.

5.2.4.2 Mitchell Shire Council Municipal Strategic Statement (MSS)

The Municipal Strategic Statement (MSS) within the Local Planning Policy Framework of the Mitchell Planning Scheme sets out the Council's strategies to address land use planning and development issues, providing context for the Council's Planning Scheme and a framework for the objectives, provisions and controls in the planning scheme. The following key land use planning objectives from the MSS assists in guiding Council's decision-making and strategic thinking in the municipality. The proposed Kilmore-Wallan Bypass has been assessed against each of the applicable MSS Clauses to determine policy implications.

Clause 21.04 Strategic Vision and Framework Maps

The Municipal Vision Statement for the Mitchell Shire is:

'Our Vision is to continue to build a prosperous and progressive Shire which is widely known as the place to live, work, invest and visit, in a manner in which our residents enjoy ownership and participate in this vision.'

Clause 21.05-1 Natural Resources and the Environment

The objectives of this Clause that are relevant to the bypass development are:

- *"To protect and manage the natural attributes and features of the Shire."*
- *"To protect places of cultural heritage and support preservation of those sites threatened by development or neglect."*

These are relevant as the potential road reservation and surrounding land currently being investigated for the bypass development is likely to contain natural and heritage values which should be considered as part of this project.

5 Current Planning Controls, Policy and Strategy

Assessment of Compliance of Clause 21.05-1

The project will provide for the development of the bypass into areas that may contain environmental and cultural heritage aspects. VicRoads will need to ensure that through appropriate sitting, design and environmental management, the bypass development project is designed to minimise impacts on natural attributes and features, including cultural heritage places.

Clause 21.05-2 Economic Development

The objective of the Clause which is relevant to the bypass proposal is:

"To lobby for the improvement of local infrastructure, including telecommunications, water supply, sewerage, power and local roads."

Assessment of Compliance of Clause 21.05-1

This clause is relevant to this project as its objective is to improve local infrastructure, including local roads. The project will result in the potential development of the Kilmore-Wallan Bypass, a new arterial road. This would also result in the upgrade of a number of intersections and neighbouring access roads, and therefore is considered to be compliant with this clause.

Clause 21.05-3 Settlement

Clause 21.05-3 outlines the key planning objectives of each township in the Mitchell Shire.

Kilmore

Features and planning objectives for Kilmore include:

Key Features:

- A strong historical and cultural base to the community development.
- A disproportionately high quantity of education facilities (a feature of the township).
- The growth and development of specific commercial facilities is greatly dependent on the traffic passing through the township, however, increasing heavy commercial vehicle traffic adversely affects town amenity.

The key planning objectives defined for Kilmore include:

- *Support the realignment of the highway from the town centre and ensure that additional traffic volumes can be accommodated within the urban boundaries.*
- *Encourage the consolidation of urban development.*
- *Incorporate buffering between the rural, rural residential and urban developments. Where possible utilise natural and landscape features, parkland or public land as boundaries and buffers.*
- *Contain commercial development within the town centre and encourage larger peripheral retailers to locate on the land at the southern entrance to the town.*
- *Protect the town's significant landscapes and natural features.*
- *Enhance the attractiveness of the Kilmore Creek area running parallel to the main street as a passive recreational area.*
- *Encourage and facilitate the horse industry and related activities on appropriate locations within the surrounds of the existing racecourse.*

5 Current Planning Controls, Policy and Strategy

Wallan

The key planning objectives for Wallan include:

- *Progressively build the community into the physical form and function of a town rather than as a scattered residential area.*
- *Ensure that new development supports community and commercial services and facilities and contributes to a functioning urban form.*
- *Ensure new development is linked to the progressive funding of facilities and infrastructure.*
- *Encourage infill development to assist in establishing a formal centre to the town.*
- *Encourage infill development within established residential communities.*
- *Lobby to provide north-bound exit ramps and south-bound entrance ramps for the freeway at Wallan/Wallan East.*

5.2.4.3 Mitchell Planning Scheme – Local Planning Policy Framework

The LPPF of the Mitchell Planning Scheme sets out the Municipal Strategic Statement and Local Planning Policies that apply to areas covered by the scheme. The following aspects of the LPPF are relevant in the context of assessing the potential social impacts of the Kilmore-Wallan Bypass.

A key objective for Kilmore outlined in the LPPF, is to realign the highway from the town centre to ensure that additional traffic volumes can be accommodated within the urban boundaries. This objective is clearly relevant in the context of this study.

An assessment of the compliance of the proposed Kilmore-Wallan Bypass is presented in Table 5-2.

5 Current Planning Controls, Policy and Strategy

Table 5-2 Compliance of Kilmore-Wallan Bypass Project with Municipal Strategic Statement and Local Planning Policy

Clause	Objective	Compliance with MSS
21.04 Strategic Vision and Framework Maps	*To continue to build a prosperous and progressive Shire which is widely known as the place to live, work, invest and visit, in a manner in which our residents enjoy ownership and participate in this vision.*	The improved amenity and accessibility of the townships of Kilmore and Wallan will facilitate the building of a prosperous and progressive Shire in line with this clause.
21.05-1 Natural Resources and the Environment	*To protect and manage the natural attributes and features of the Shire."* *To protect places of cultural heritage and support preservation of those sites threatened by development or neglect."*	The project will provide for the development of the bypass into areas that may contain environmental and cultural heritage aspects. VicRoads will need to ensure that through appropriate sitting, design and environmental management, the bypass development project is designed to minimise impacts on natural attributes and features, including cultural heritage places.
21.05-2 Economic Development	*To lobby for the improvement of local infrastructure, including telecommunications, water supply, sewerage, power and local roads*	This clause is relevant to this project as its objective is to improve local infrastructure, including local roads. The project will result in the potential development of the Kilmore-Wallan Bypass, a new arterial road. This would also result in the upgrade of a number of intersections and neighbouring access roads, and therefore is considered to be compliant with this clause.
21.05-3 Settlement	*To provide infrastructure and community facilities and services which meet the needs of the planned for population (approx 35,000 in Year 2011)*	Each of the proposed bypass alignments is consisted with the demand for additional road capacity in the study area.
22.02-1 Structure plans for towns	*To use the strategic structure plan for each town and community to assist in coordinated land use and development planning.*	None of the proposed bypass alignments will preclude development in line with the Kilmore Township and Wallan-Beveridge Township Structure Plans set out in cl. 21.05-3 of the Mitchell Planning Scheme.
22.03-2 Erosion Risk	*To ensure that the use and development of land does not cause significant land disturbance.* *To protect areas prone to soil erosion by minimising soil erosion and vegetation loss.*	All proposed bypass alignments would be designed in accordance with current geotechnical standards.

5 Current Planning Controls, Policy and Strategy

Clause	Objective	Compliance with MSS
22.05-1 Agriculture, Agroforestry and Processing	*To protect the natural and physical resources upon which agricultural industries rely.* *To ensure that the use and development of land within Mitchell is not prejudicial to agricultural industries or to the productive capacity of the land.*	All proposed bypass alignments would be designed in accordance with current environmental standards. The proportion of agricultural land lost to any of the proposed bypass alignments is negligible in the context of the Mitchell Shire.
22.06-2 Road Construction and Access	*To ensure that proposed uses and developments do not restrict existing road access.* *To ensure that all new uses and developments are provided with two way access and that access is safe and efficient.*	Accessibility impacts of each of the proposed bypass alignments will be factored into the design considerations.
22.06-3 Hume Freeway, Hume Highway and Goulburn Valley Highway Environs	*To ensure that the use and development of land does not prejudice the levels of service, safety and amenity of the Hume Freeway and Goulburn Valley Highway.* *To minimise any adverse effects of noise from traffic using the Hume Freeway and Goulburn Valley Highway.*	The amenity impacts and additional traffic resulting from each of the proposed bypass alignments will be similar and negligible and factored into the design considerations.

5 Current Planning Controls, Policy and Strategy

5.2.4.4 Zones

Under the provisions of the Mitchell Planning Scheme, several zones apply to the Kilmore-Wallan Bypass study area.

The zone provisions of the Mitchell Planning Scheme describe the types of land use and development that are allowed, require a planning permit and those that are prohibited, and outline requirements for any specific uses and development. The following zones are included in the study area (refer to Figures 5–1a-d):

- Farming Zone (FZ)
- Low Density Residential Zone (LDRZ)
- Public Conservation and Recreation Zone (PCRZ)
- Public Park and Recreation Zone (PPRZ)
- Public Use Zone – Service and Utility (PUZ1)
- Public Use Zone – Education (PUZ2)
- Public Use Zone – Transport (PUZ4)
- Public Use Zone – Local government (PUZ6)
- Public Use Zone – Other public use (PUZ7)
- Residential 1 Zone (R1Z)
- Road Zone – Category 1 (RDZ1)
- Road Zone – Category 2 (RDZ2)
- Rural Living Zone (RLZ)
- Special Use Zone 1 (SUZ1)
- Special Use Zone 3 (SUZ3)

Table 5-3 outlines the zoning planning permit requirements that relate to the use of land.

A Public Acquisition Overlay set out in clause 45.01 of the Victorian Planning Provisions would be applied to the area required to construct the preferred option. This provision exempts the authority responsible for acquiring the land from the usual planning permit requirements if the land has been acquired and any of the above matters for which a permit is required is consistent with the purpose for which the land was acquired. The current zoning and permit requirements therefore present no barrier to the selection of any bypass option over another.

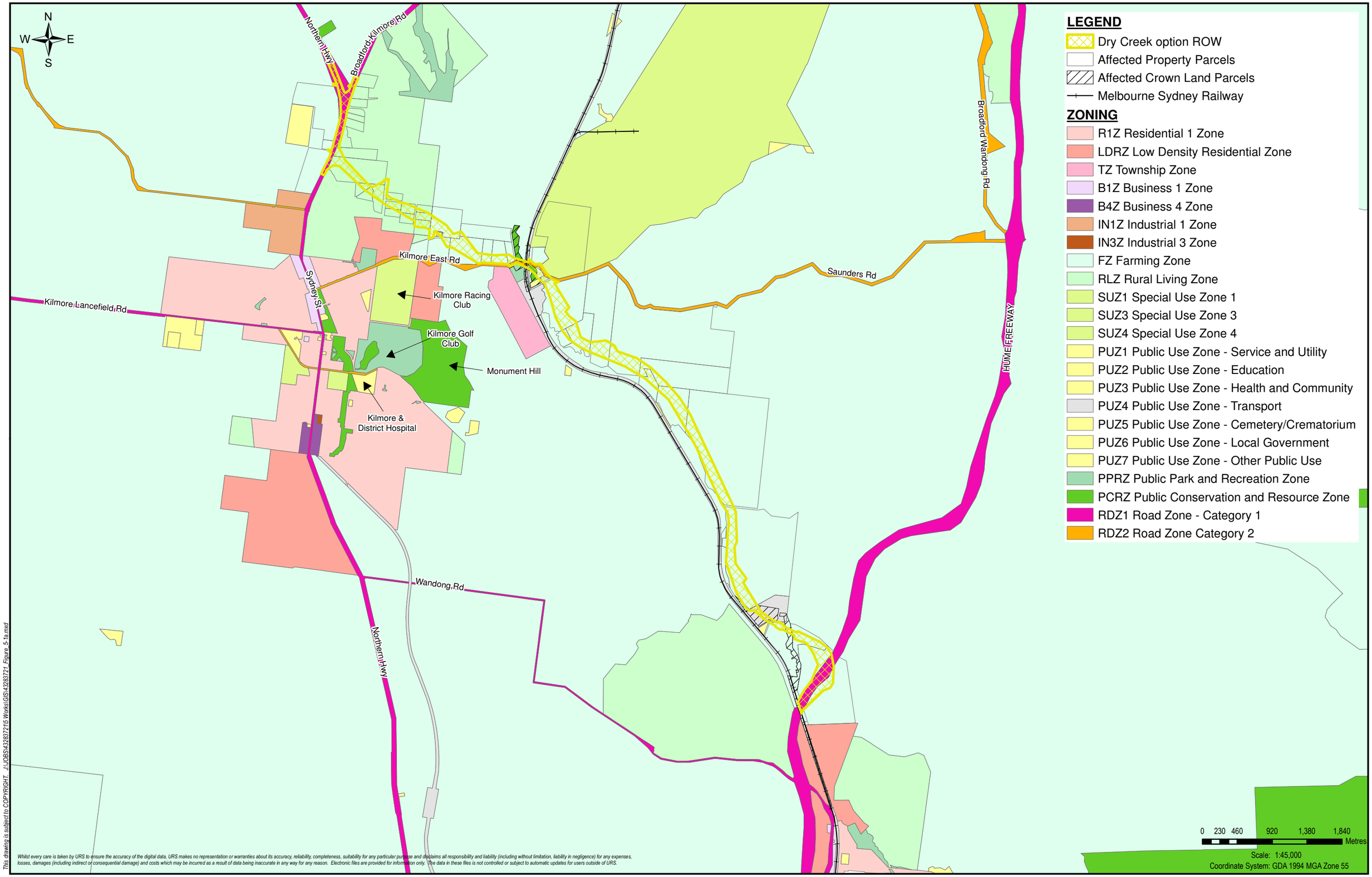
5 Current Planning Controls, Policy and Strategy

Table 5-3 Zoning permit requirements

Zone	Kilmore-Wallan Bypass route option									
	Western Option		Quinns Rd option		O'Gradys Rd option		Dry Creek Option		Sunday Creek option	
	Applies	Permit	Applies	Permit	Applies	Permit	Applies	Permit	Applies	Permit
Low Density Residential Zone	No	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Public Conservation and Resource Zone	No	N/A	✓	Yes	No	N/A	No	N/A	No	N/A
Public Park and Recreation Zone	✓	Yes	No	N/A	✓	Yes	✓	Yes	No	N/A
Public Use Zone – Service and Utility	No	N/A	No	N/A	✓	No	✓	No	N/A	No
Public Use Zone – Education	✓	No	✓	No	No	N/A	No	N/A	No	N/A
Public Use Zone – Transport	No	N/A	No	N/A	✓	No	✓	No	No	N/A
Public Use Zone – Local government	✓	No	✓	No	✓	No	✓	No	✓	No
Residential 1 Zone	No	N/A	No	N/A	No	N/A	No	N/A	No	N/A
Road Zone Category - 1	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Road Zone Category - 2	No	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Rural Living Zone	No	N/A	✓	✓(*)	✓	✓(*)	✓	✓(*)	✓	✓(*)
Special Use Zone 1 (Earth and Energy Resources Industry)	No	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Special Use Zone 3 (Kilmore Racetrack)	No	N/A	✓	Yes	No	N/A	No	N/A	No	N/A
Farming Zone	✓	✓(*)	✓	✓(*)	✓	✓(*)	✓	✓(*)	✓	✓(*)

(*) Permit requirement applies to earthworks only.

Figures 5-1a-d illustrate the relevant planning zones that apply to each bypass option.



VICROADS

KILMORE - WALLAN
BYPASS LAND USE AND
REGIONAL ECONOMY STUDY

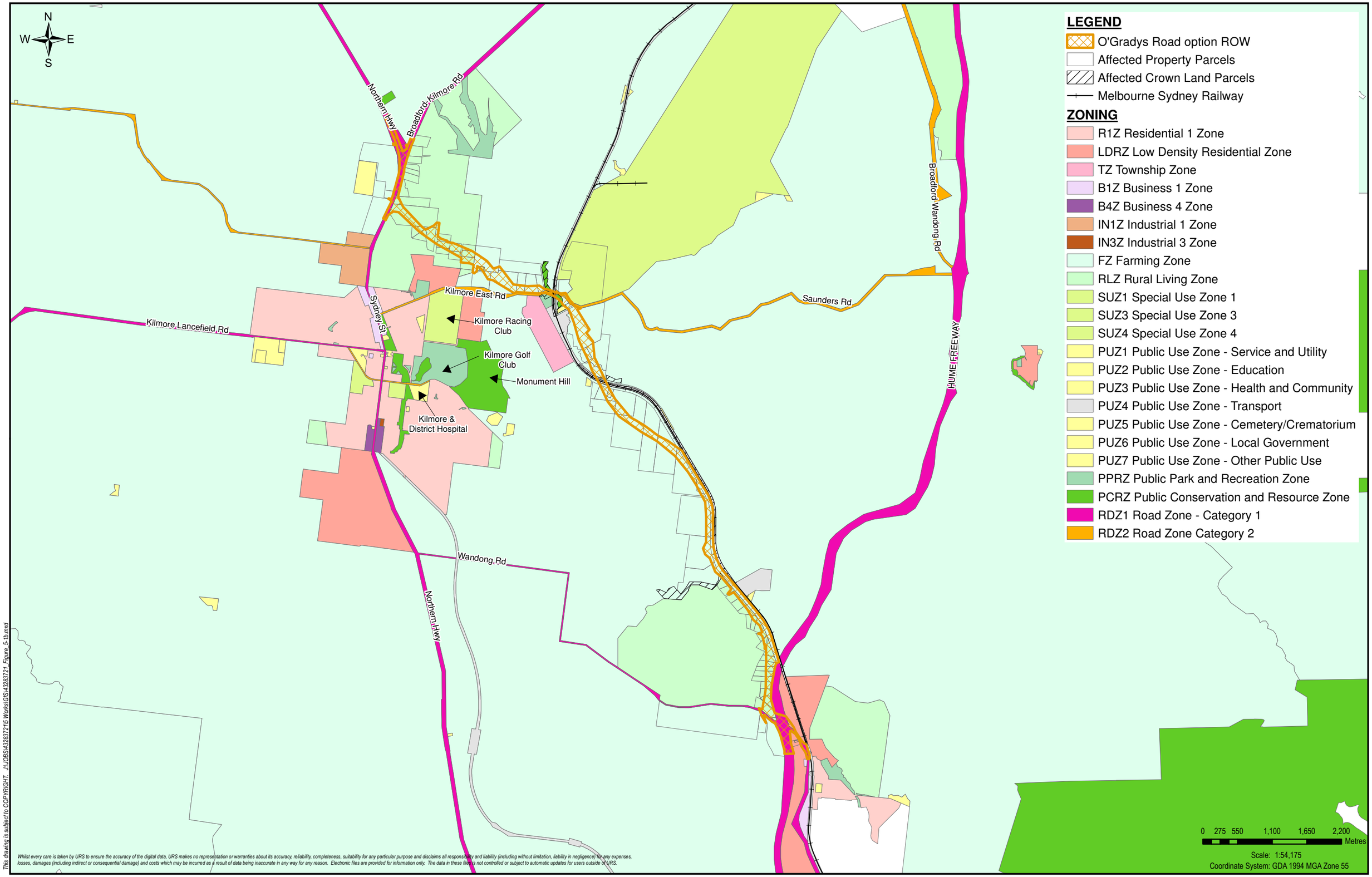
PLANNING ZONES
DRY CREEK OPTION

URS

File No: **43283721_Figure_5-1a.mxd** Drawn: **NT** Approved: **KS** Date: **13/11/2012**

Figure: **5-1a**

Rev. **A** A3



VICROADS

KILMORE - WALLAN
BYPASS LAND USE AND
REGIONAL ECONOMY STUDY

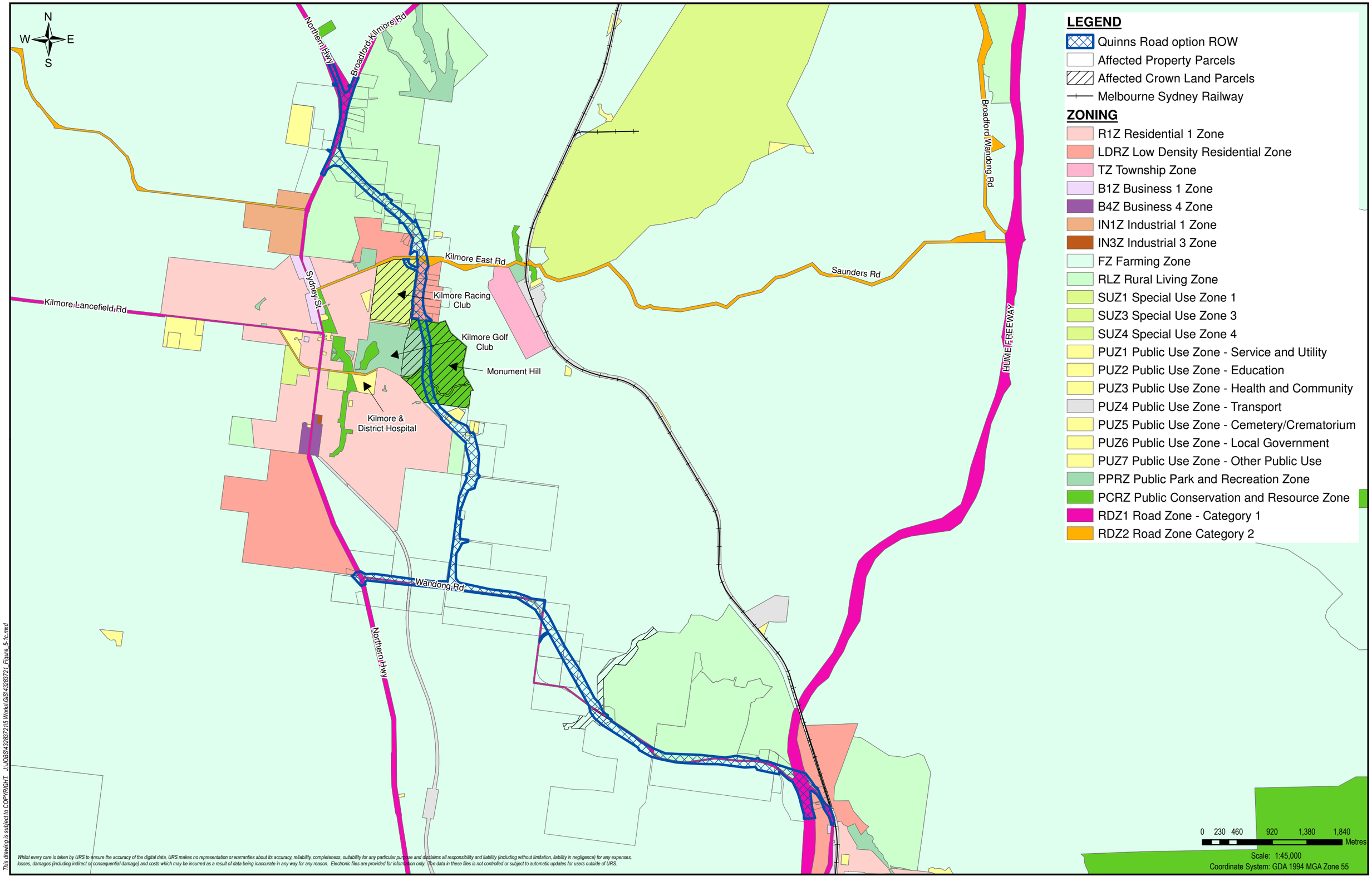
PLANNING ZONES
O'GRADYS ROAD OPTION

URS

File No: **43283721_Figure_5-1b.mxd** Drawn: **NT** Approved: **KS** Date: **14/11/2012**

Figure: **5-1b**

Rev. **A** A3



VICROADS

KILMORE - WALLAN
BYPASS LAND USE AND
REGIONAL ECONOMY STUDY

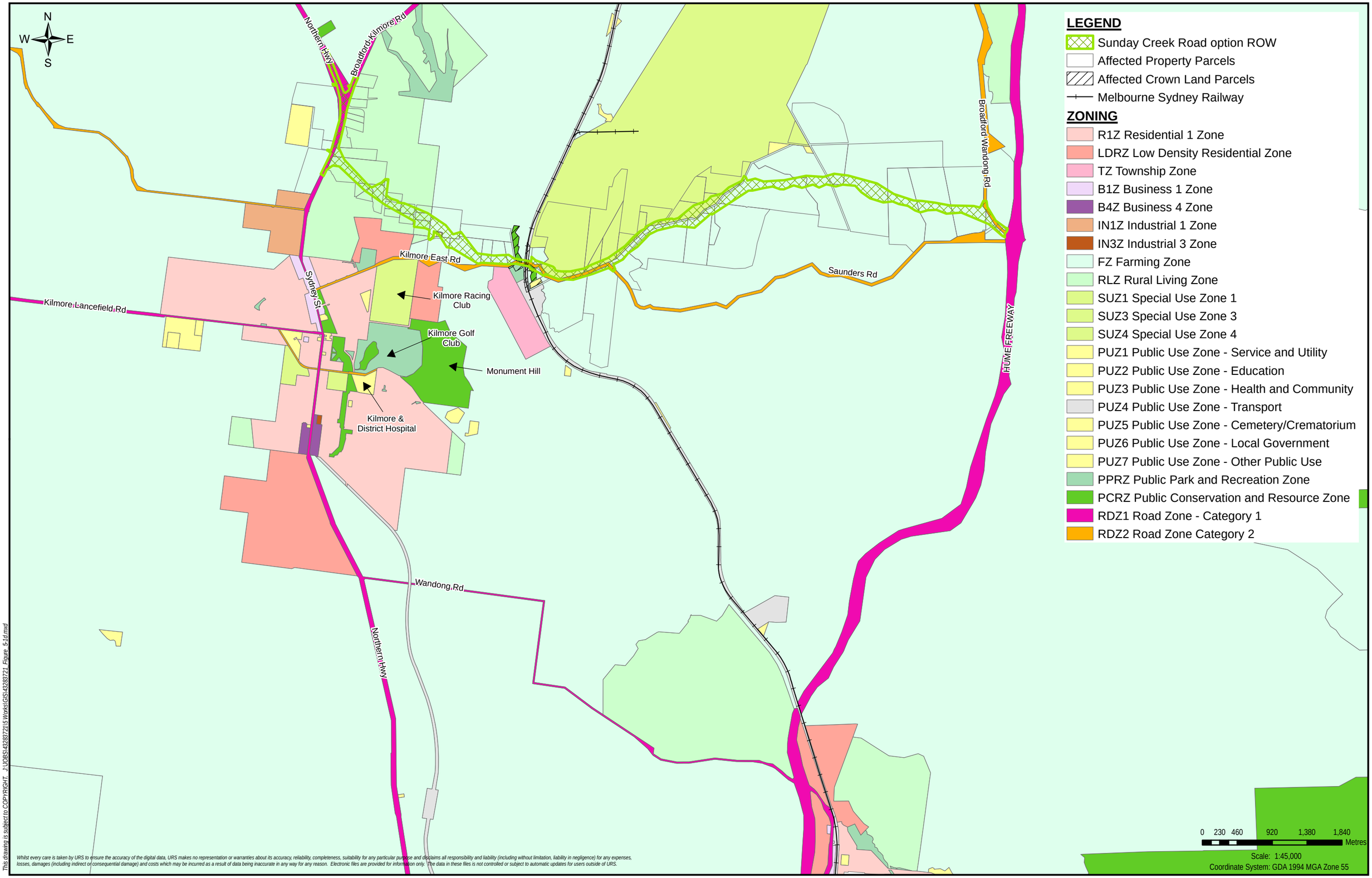
PLANNING ZONES
QUINNS ROAD OPTION

URS

File No: **43283721_Figure_5-1c.mxd** Drawn: **NT** Approved: **KS** Date: **14/11/2012**

Figure: **5-1c**

Rev. **A** A3



VICROADS

KILMORE - WALLAN
BYPASS LAND USE AND
REGIONAL ECONOMY STUDY

PLANNING ZONES
SUNDAY CREEK ROAD OPTION

URS

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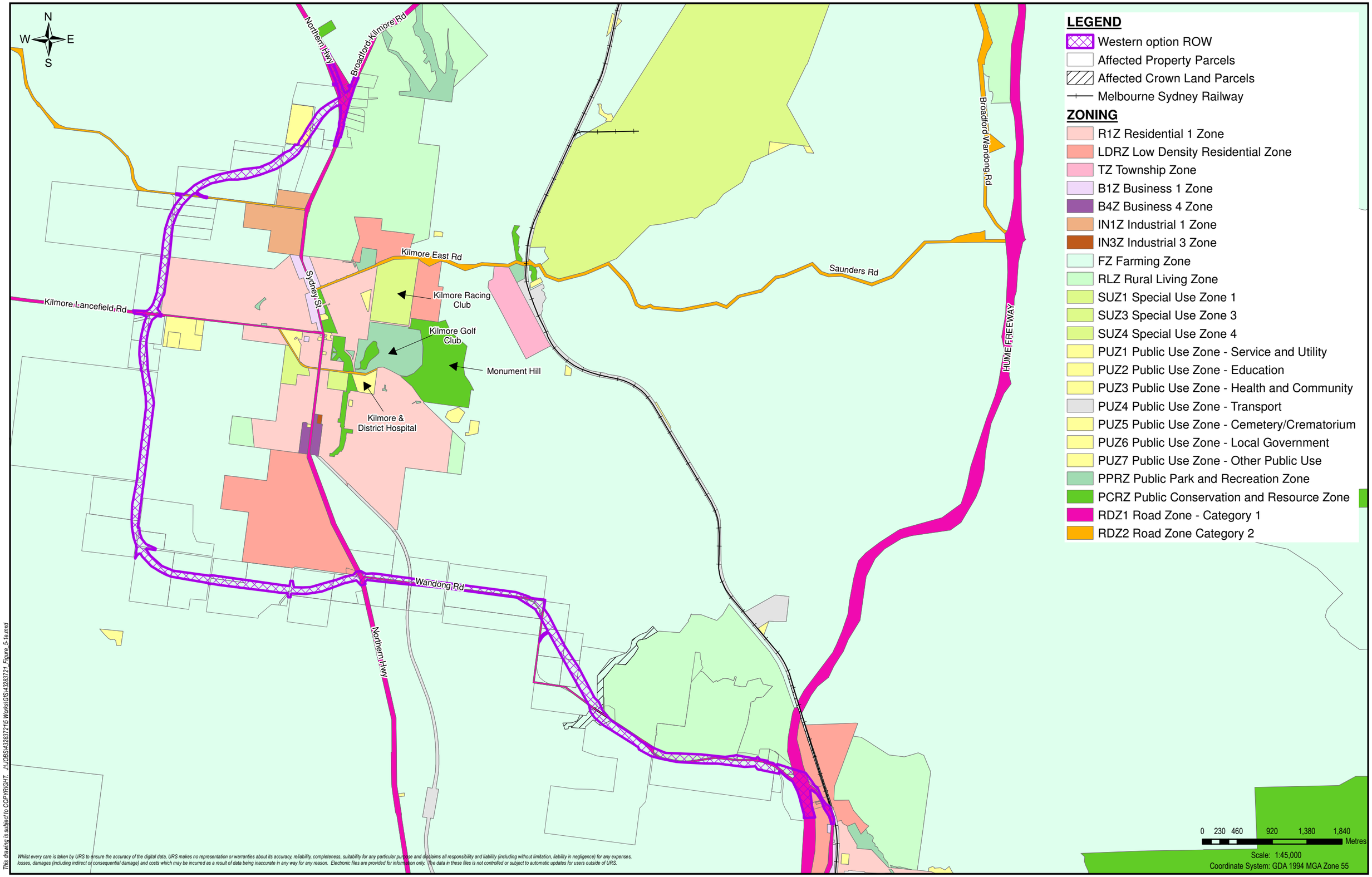
Figure: **5-1d**

Rev. **A** A3



VICROADS

KILMORE - WALLAN
BYPASS LAND USE AND
REGIONAL ECONOMY STUDY

PLANNING ZONES
WESTERN OPTION

URS

File No: **43283721_Figure_5-1e.mxd** Drawn: **NT** Approved: **KS** Date: **13/11/2012**

Figure: **5-1e**

Rev. **A** A3

5 Current Planning Controls, Policy and Strategy

FZ Farming Zone

The objectives of this zone are:

- *To provide for the use of land for agriculture.*
- *To encourage the retention of productive agricultural land.*
- *To ensure that non-agricultural uses, particularly dwellings, do not adversely affect the use of land for agriculture.*
- *To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.*
- *To protect and enhance natural resources and the biodiversity of the area.*

LDRZ Low Density Residential Zone

The objectives of this zone are:

- *To provide for low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater.*

PCRZ Public Conservation and Resource Zone

The objectives of this zone are:

- *To protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.*
- *To provide facilities which assist in public education and interpretation of the natural environment with minimal degradation of the natural environment or natural processes.*
- *To provide for appropriate resource based uses.*

PPRZ Public Park and Recreation Zone

The objectives of this zone are:

- *To recognise areas for public recreation and open space.*
- *To protect and conserve areas of significance where appropriate.*
- *To provide for commercial uses where appropriate.*

PUZ1 Public Use Zone – Service and Utility

PUZ2 Public Use Zone – Education

PUZ4 Public Use Zone – Transport

PUZ6 Public Use Zone – Local Government

PUZ7 Public Use Zone – Other public use

The objectives of this zone are:

- *To recognise public land use for public utility and community services and facilities.*
- *To provide for associated uses that are consistent with the intent of the public land reservation or purpose.*

R1Z Residential 1 Zone

The objectives of this zone are:

- *To provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households.*
- *To encourage residential development that respects the neighbourhood character.*

In appropriate locations, to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs.

RDZ1 Road Zone Category 1

RDZ2 Road Zone Category 2

The objectives of this zone are:

- *To identify significant existing roads.*
- *To identify land which has been acquired for a significant proposed road.*

RLZ Rural Living Zone

The objectives of this zone are:

- *To provide for residential use in a rural environment.*
- *To provide for agricultural land uses which do not adversely affect the amenity of surrounding land uses.*
- *To protect and enhance the natural resources, biodiversity and landscape and heritage values of the area.*
- *To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.*

SUZ1 Special Use Zone 1

SUZ3 Special Use Zone 3

The objectives of this zone are:

- *To recognise or provide for the use and development of land for specific purposes as identified in a schedule in this zone.*

5.2.4.5 Overlays

Under the provisions of the Mitchell Planning Scheme, various sections of the Kilmore-Wallan Bypass study area are affected by several different overlays, which regulate development in areas with particular requirements relating to: environment and landscape; heritage and built form; and land management. The relevant overlays are:

- Environmental Significance Overlay
- Vegetation Protection Overlay — Schedule 1 (Roadside and Corridor Protection)
- Significant Landscape Overlay
- Design and Development Overlay — Schedule 3 (Kilmore Equine Lifestyle Precinct) and Schedule 7 (Kilmore and Seymour Hospitals Emergency Service Flight Path (Inner))
- Development Plan Overlay — Schedule 7 (Rural Living Zone)

- Erosion Management Overlay
- Salinity Management Overlay
- Wildfire Management Overlay

Table 5-4 outlines the overlay planning permit requirements that relate to the development of land.

The implication of the likely Public Acquisition Overlay discussed in 5.2.4.4 also applies to the permitting requirements that would otherwise be triggered by the above overlays. These overlays therefore do not inhibit the construction of any of the proposed bypass alignments and is not a key determinant of the preferred option for this assessment.

5.2.4.6 Planning Scheme Amendments (currently exhibited)

Amendment C79 was prepared by the Mitchell Shire Council to implement a number of the recommended actions included in the Kilmore Strategy Plan June 2008 by rezoning land and applying overlays to various parcels of land to guide the future development of the Kilmore township and environs. The changes proposed in the exhibited Amendment included:

- Additional land for rural living purposes through application of the Rural Living Zone accompanied by Development Plan Overlays and in one instance the Environmental Audit Overlay.
- Additional land for low density residential purposes through application of the Low Density Residential Zone accompanied by Development Plan Overlays.
- Additional land for residential purposes through application of the Residential Zone accompanied by a Development Plan Overlay.
- Additional land for industrial purposes through application of the Industrial 3 Zone accompanied by a Development Plan Overlay and Design and Development Overlay.
- Additional land for public open space through application of the Public Park and Recreation Zone.
- Converted land for Assumption College through application of the Special Use Zone 4 – Private Educational or Religious Institutions.
- Application of the Road Closure Overlay to two streets.
- Removal of the Salinity Management Overlay from land proposed for urban development.

These changes were considered at a Panel hearing convened in May 2012. A number of the above proposed changes were not supported by the panel and the Amendment is now with Mitchell Shire Council as the Responsible Authority.

5 Current Planning Controls, Policy and Strategy

Table 5-4 Overlays and permit requirements

Overlay	Kilmore-Wallan Bypass route option									
	Western Option		Quinns Rd option		O'Gradys Rd option		Dry Creek Option		Sunday Creek option	
	Applies	Permit	Applies	Permit	Applies	Permit	Applies	Permit	Applies	Permit
Environmental Significance Overlay	No	N/A	No	N/A	✓	✓	✓	✓	✓	✓
Vegetation Protection - Schedule 1 (Roadside & Corridor Protection)	✓	✓(*)	✓	✓(*)	✓	✓(*)	✓	✓(*)	✓	✓(*)
Significant Landscape Overlay	No	N/A	✓	✓	No	N/A	No	N/A	No	N/A
Design and Development Overlay - Schedule 7 (Kilmore and Seymour Hospitals Emergency Service Flight Path (Inner))	No	N/A	No	N/A	✓	No	✓	No	✓	No
Development Plan Overlay - Schedule 7 (Rural Living Zone)	No	N/A	✓	✓	✓	✓	✓	✓	✓	✓
Erosion Management Overlay	No	N/A	✓	✓	✓	✓	✓	✓	✓	✓
Salinity Management Overlay	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wildfire Management Overlay	✓	No	✓	No	✓	No	✓	No	✓	No

(*) Permit requirement applies to removal, destruction or lopping of any vegetation, including dead vegetation.

5 Current Planning Controls, Policy and Strategy

ESO Environmental Significance Overlay

The objectives of this overlay are:

- *To identify areas where the development of land may be affected by environmental constraints.*
- *To ensure that development is compatible with identified environmental values.*

VPO1 Vegetation Protection Overlay – Schedule 1 (Roadside and Corridor Protection)

The objectives of this overlay are:

- *Protect and preserve indigenous vegetation and rare and endangered flora and fauna species on linear reserves.*
- *Achieve high landscape quality on roadsides.*
- *Maintain and enhance habitat and corridor requirements for indigenous fauna.*

SLO1 Significant Landscape Overlay

The objectives of this overlay are:

- *To protect the natural and environmental significance of Monument Hill.*
- *To recognise and protect the landscape conservation and scientific importance of the area.*
- *To protect the area and the surrounding landscapes from visual intrusion and inappropriate development.*
- *To maintain passive recreational use of the land for the enjoyment of all visitors.*

DDO3 Design and Development Overlay Schedule 3 (Kilmore Equine Lifestyle Precinct

The objectives of this overlay are:

- *To allow for the establishment of horse stables with minimal adverse amenity effect on surrounding residential use within the Kilmore Equine Lifestyle precinct.*

DDO7 Design and Development Overlay Schedule 7 (Kilmore and Seymour Hospitals Emergency Service Flight Path (Inner)

The objectives of this overlay are:

- *To ensure the height of new development does not encroach on the flight path areas associated with the Kilmore and Seymour District Hospitals helipads.*
- *To ensure that the height of new development avoids creating a hazard to aircraft in the vicinity of the Kilmore and Seymour Hospital helipads and to facilitate safe emergency medical service helicopter operations.*

EMO Erosion Management Overlay

The objectives of this overlay are:

- *To protect areas prone to erosion, landslip or other land degradation processes, by minimising land disturbance and inappropriate development.*

SMO Salinity Management Overlay

The objectives of this overlay are:

- *To identify areas subject to saline ground water discharge or high ground water recharge.*
- *To facilitate the stabilisation of areas affected by salinity.*

- *To encourage revegetation of areas which contribute to salinity.*
- *To encourage development to be undertaken in a manner which brings about a reduction in salinity recharge.*
- *To ensure development is compatible with site capability and the retention of vegetation, and complies with the objectives of any salinity management plan for the area.*
- *To prevent damage to buildings and infrastructure from saline discharge and high watertable.*

WMO Wildfire Management Overlay

The objectives of this overlay are:

- *To assist to strengthen community resilience to bushfire.*
- *To identify areas where the bushfire hazard requires specified bushfire protection measures for subdivision and buildings and works to be implemented.*
- *To ensure that the location, design and construction of development considers the need to implement bushfire protection measures.*
- *To ensure development does not proceed unless the risk to life and property from bushfire can be reduced to an acceptable level.*

5.3 Future Land Use Policies

The Kilmore Structure Plan and Wallan Structure Plan set the future planning directions for these townships. Sections 5.3.1, 5.3.2 and 5.3.3 detail these plans and their implications for the Kilmore-Wallan Bypass.

5.3.1 Kilmore Strategy Plan

The Kilmore Strategy Plan (prepared for Mitchell Shire Council by Hansen Partnership in June 2008) is a document designed to assist the management and monitoring of future growth and development in the Kilmore Township. The Plan seeks to establish an agreed vision for Kilmore's urban areas and define the ultimate extent and image of the Township and its immediate surroundings for a period of more than 20 years. The Plan consists of three components:

- The Kilmore Growth Management Plan;
- The Kilmore Structure Plan (refer to Appendix A for Structure Plan Directions);
- The Kilmore Urban Design Framework.

It is outlined in the Strategy Plan that Kilmore must accommodate the considerable population growth that is anticipated within the Shire as part of the Hume Growth Corridor. Kilmore is identified as having growth capabilities, due to its transport connections and access to services, however, it is acknowledged that Kilmore's ability to absorb growth is different to that in other towns within the south of the shire, as it is constrained by natural topography, limiting its potential to expand outwards.

It is acknowledged that the ability to move into and through Kilmore will change, with a series of enhancements to existing approach roads to the town and new road connections. The need to reduce industrial and / heavy vehicle through traffic within the centre of the town is noted. It is also envisaged that the Northern Highway will continue to serve as the primary gateway to the town from the south and north, with the southern entrance undergoing significant landscape treatment with the addition of a central median and new street tree planting.

5 Current Planning Controls, Policy and Strategy

The Structure Plan seeks to determine the pattern of development on private land in the town. The plan is based on 10 key directions, those relevant to this report include:

- Conserving the town's green edges – the sense of landscape and remnant vegetation within and around the town is a critical value to maintain.
- Defining the town's inner and outer gateways – the outer gateway is defined at the historic bluestone bridge on the Northern Highway.
- Improve north-south connections in local road network – in the long term a Kilmore/Wallan bypass and in the short-term improvements to Kilmore's local road network; generally a requirement to relieve the level of congestion and reduced levels of amenity currently experienced in the town centre.

5.3.2 Wallan Structure Plan

Wallan's Structure Plan also incorporates traffic management proposals, which include:

- New road connections to improve east-west accessibility;
- Proposed intersection treatments i.e. roundabouts and traffic signals;
- Grade separations at strategic locations between the freeway and district level truck routes;
- Upgrade to the southern freeway interchange.

Wallan's Structure Plan states that there are improvements which need to be made to the existing residential precincts of Wallan. These do not generally require the modification of existing land use, but predominantly need to address the roads and pathways which link these areas to the township, the overall quality of open space areas and the availability of supplementary commercial and community facilities.

The Structure Plan also identifies key issues that are facing the south of the Mitchell Shire in relation to infrastructure and development needs, these are summarised as follows:

- The Wallan to Kilmore section of the Northern Highway already has traffic volumes near those expected to provide reasonable operating conditions for a 2 lane, 2 way rural highway, therefore without capacity improvement or development of alternative routes, severe congestion will be experienced within 10 years.
- Delays and capacity constraints occur in Kilmore and will worsen as urban development continues. Traffic volumes through Kilmore are expected to return to the pre-opening of the Wallan Bradford section of the Hume Freeway.
- There are indications of a higher than average accident rate on much of the section of the highway according to VicRoads data, including fatalities.
- Public transport was raised as a key concern in public consultation.

Within the Structure Plan relevant visions for the south of the Mitchell Shire, included:

- Support for residential growth based on areas which can be well serviced.
- A well connected public transport service between Beveridge, Kilmore and the surrounding area to connect to Wallan Secondary College and Wallan Primary School;
- An effective and well-coordinated public transport and community bus service.
- A safe road network that meets the demand of the Mitchell South area residents.

The Structure Plan also identifies a vision to provide a recognisable visitor reception point at the southern-most point of the town, via treatment of the Northern Highway.

It is envisaged that the wide verge areas will be used to improve treatment and create a grand park-like setting, reminiscent of a prosperous regional city centre

The Structure Plan concludes that Wallan is at a critical point in its development, as it moves from a smaller commuter based township strongly associated with its rural context, to a more independent and economically self-sufficient metropolitan centre.

5.3.3 Mitchell Shire Economic Development and Tourism Strategy (2010)

The Mitchell Shire Economic Development and Tourism Strategy is a document designed to develop a range of strategies and key performance indicators to assist Council to facilitate the growth of a sustainable and healthy local economy.

Sustainable and ongoing economic growth through the expansion of local business and employment opportunities is vital for the future improvement of community infrastructure and delivery of services in Mitchell Shire. For example, the attraction of a major commercial entity not only supports many new jobs, but also provides a boost to the rates base (through commercial rates) and which can then be used to support and improve a range of local services. Improved access and connections increase development potential.

Objectives for economic growth in Mitchell Shire should be focused on practical actions to:

1. Retain and expand existing businesses and industry;
2. Attract new businesses to the area by identifying emerging sectors;
3. Harness the skills and expertise in the community while building its capacity for the future;
4. Manage businesses and industries in transformation or decline; and
5. Build a strong, vibrant and sustainable community in the context of climate, economic and social change.

The Strategy states; a strong local economy relies on the provision of appropriate infrastructure and services, including serviced commercial and industrial development sites (to support business investment and jobs; health, community services, recreation and education infrastructure (to support expanding population levels and visitation); and transport infrastructure which enables the efficient movement of goods and people (roads, public transport, access to export points such as ports and airports). The Strategy outlines that in terms of local infrastructure provision, the following issues are of particular relevance: The potential for the Northern Highway to be duplicated at Kilmore, possibly including a town bypass.

Managing Growth is also noted to be a key issue in the Strategy. There is a need to manage growth and ensure infrastructure provision does not lag behind population and housing growth. With the expansion of the UGB overtime infrastructure improvements will be required to manage the situation. It is also noted within the Strategy that is important to create liveable communities; this therefore requires some current liveability issues related to the Northern Highway to be addressed to ensure the liveability of Kilmore and surrounding towns continues in the years to come.

6

Land Use and Regional Economy Impact Assessment

This section provides analysis of the results of the consultation and technical assessments based on other concurrent studies and publically available data. Section 2.3.4 outlines the questionnaire development process, which determined the information gathered from stakeholders to inform this analysis. Appendix B contains the full questionnaires which detail all questions asked of stakeholders.

6.1 Overview of Consultation Responses

Early in the conduct of the face-to-face meetings with the stakeholders selected for consultation, it became evident that the stakeholders had a relatively clear understanding of the proposed options, but a more limited understanding of why a bypass is needed. This need was usually understood as being the removal of through-traffic, and especially heavy vehicles from Sydney Street Kilmore. Stakeholders were less cognisant of the need to improve / aid movement through the region and to and from metropolitan Melbourne.

In addressing the perceived need for a bypass of Kilmore and Wallan, it also quickly became evident that the stakeholders were applying a number of similar criteria or principles in determining the “best option”. However, stakeholders often justified their preferred option on the same grounds. The principles generally applied by stakeholders are summarised as follows, namely that the preferred option should:

- have a minimal impact on current land uses
- have a minimal impact on community facilities, infrastructure and landscape amenity
- enhance public safety and amenity of Sydney Street
- be conveniently accessible to traffic travelling south from the Northern Highway / Broadford-Kilmore Road and north from the Hume Freeway
- be located in the most appropriate geographic location, taking into account topographic and existing land use considerations.

For reasons which are outlined in this and the following sections, the overall preference ranking of the five proposed bypass alignment based on the views of the 88 stakeholders consulted was:

1. Dry Creek

This was the most preferred option of the stakeholders consulted largely due to its relatively minimal amenity impacts on significant recreational and natural land uses and the perceived minimal impact on private properties.

2. O’Gradys Road
3. Western
4. Sunday Creek Road
5. Quinns Road

Although the above ranking is based on the sample of stakeholders consulted, due to the process used to select the stakeholders (refer to Section 2.3.2 and separate Consultation Plan) together with the understanding of the issues involved by those consulted, it is considered that the above ranking would be representative of the wider Kilmore-Wallan community. In addition, many of those consulted also stated that they were considering the interests of others as well as their own when ranking the proposed options.

6.2 Consultation Questionnaire Rating Scale

In developing the interview questionnaire, a five-level rating scale was used to enable stakeholders consulted to score the level of impact of each of the five proposed bypass alignments.

This rating scale is shown in Table 6-1 and is considered adequate to enable respondents to identify their preferred option. However, the use of a five-level rating differs from the seven-level rating (refer to Figure 7-1) used to complete the Objective Based Evaluation Matrix (OBEM). This finer scale was provided by VicRoads following the preparation of the approved questionnaires and commencement of the consultation program.

Table 6-1 Five-level rating scale used for stakeholder consultation

Impact
Significantly positive
Moderately positive
Neutral
Moderately negative
Significantly negative

Based on their assessment of the impact of each of the proposed bypass alignments, stakeholders were then asked to rank the five options in order of preference. Stakeholders were also asked assess the impact of each of the proposed alignments on the following aspects of their property / business:

- loss of assets
- lost personal income associated with the land (aside from that resulting from loss of productive land)
- changed accessibility to land
- future land development options.

Stakeholders were asked to rate the impact of the proposed options as positive, negative or neutral.

6.3 Land Use Impacts

A total of 88 stakeholders were consulted about the potential land use impacts on their property or business of the five proposed bypass alignments. Stakeholders were selected from a range of land use groups and geographic areas as outlined in Section 2.3.2.

In addition to the land required to secure the corridor for each alignment, the key impacts of changed land uses resulting from the construction of a new road are:

- changed land uses in adjoining areas
- ease of access, either improved or reduced
- safety and general amenity.

As stated previously, each of the proposed alignments would be designed to meet current safety and traffic standards and are therefore considered to have an equal impact in terms of safety and general amenity. These aspects therefore are not considered to be a key determinant for the purposes of this assessment.

6 Land Use and Regional Economy Impact Assessment

Any compliance and/or mitigation measures required, for example, sound barriers, staggered intersections or pedestrian crossings would be included in the costs of construction and factored into the land use and regional economy assessment in this way.

This section provides a summary of the relative local and regional impacts on current land uses resulting from each of the five proposed bypass alignments.

This assessment includes consideration of implications for land use and development change adjacent to the proposed routes, as well as the wider region. An understanding of the land use change associated with each of the proposed alignments is considered as a necessary prerequisite to assess the potential implications from a wider regional economy perspective; that is, land use change is a major driver of changes to economic activity both within the local region as well as at the State and National levels.

6.3.1 Assessment of Stakeholder Views

Figure 6-1 shows the level of impact on current land uses and associated business activities of each of the five proposed bypass alignments reported by consulted stakeholders.

Many stakeholders considered that the Dry Creek and O'Gradys Road alignments would have the greatest positive impact. This was largely due to the opinion that these alignments would provide the most attractive options to bypassable traffic and would therefore remove the largest volume of traffic from the Northern Highway through both Wallan and Kilmore. Note however, that this perception is not reflected in the traffic modelling conducted by AECOM.

By contrast, other stakeholders considered that the Quinns Road and Western alignments would also have a positive impact due to a perception that they would be most attractive to local traffic and would best aid the movement of local traffic to Melbourne.

At the same time, the Quinns Road and Western Options were assessed by others to have the most negative impacts. In the case of the Quinns Road Option this was largely due to the perceived negative impact on the amenity (noise and visual) on recreational land uses including the racecourse, cricket ground, golf course[1] and Monument Hill. Some stakeholders also expressed concern that, for the Quinns Road alignment, it would divide the Kilmore township from properties and associated land uses east of the alignment, reducing ease of movement and access between these areas.

The relatively high proportion of stakeholders reporting negative land use impacts resulting from the Western alignment is consistent with the ranking by these stakeholders of this alignment as their least preferred option.

The Sunday Creek Road Option was assessed to be the most neutral option in terms of land use impacts. This was largely because it is perceived to affect fewer landowners and would be the least attractive of the proposed routes to both bypassable and local traffic and would therefore have minimal impact on traffic volumes on the Northern Highway

[1] Since the completion of stakeholder consultation, it has been confirmed that the Quinns Road Option will not require the acquisition of land from the Kilmore Golf Club. However, given that this was not known at the time of consultation, feedback received from stakeholders will not reflect this redesign and the assessment of the Quinns Road Option may therefore be more conservative than it would have been had this information been available at the time of consultation.

6 Land Use and Regional Economy Impact Assessment

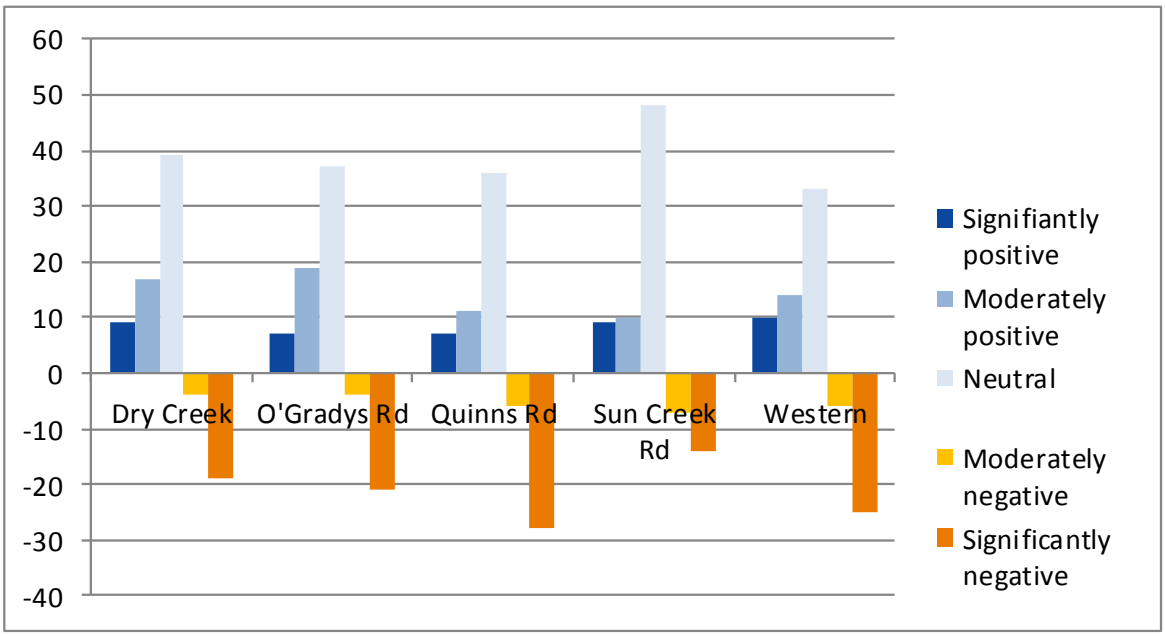


Figure 6-1 Summary of land use impacts

6.3.2 Loss of Land and Land Severance

The corridors for investigation purposes cover a total of approximately 850 ha. The functional design for the road and bridge works shows a development footprint for the ultimate duplicated facility as listed below for each option in Table 6-2.

Loss of land and land severance are the two most significant impacts on landholders that may arise from the construction of any of the proposed bypass alignments. Based on data provided by VicRoads, Table 6-2 shows the number of properties that are directly impacted by each of the proposed alignments and of these, which will be severed.

With the exception of the proposed Quinns Road and O'Gradys Road alignments, all options will require acquisition of land from 50 or fewer landowner properties (excluding Crown land). The Dry Creek option is the best performing bypass alignment relatively with a total of 35 properties anticipated to be impacted. The proposed Quinns Road and O'Gradys Road alignments by contrast, would affect some 61 and 67 property owners respectively because they pass through existing residential areas.

Land severance is potentially a more severe form of land use change in that it divides a property with ramifications for the viability of the current land use as a result of decreased accessibility to land and infrastructure and associated increased operating costs. Properties that are severed are likely to require additional mitigation measures in addition to the compensation for the land acquired. These mitigation measures are discussed in more detail in Section 8, but briefly, may include:

- replacement of lost infrastructure such as dams, stockyards and fences
- alternative access arrangements to the severed part of a property.

Compensation provided under the *Land Acquisition and Compensation Act 1986* will offset some of the impacts of land severance, which will then become an issue of construction cost.

6 Land Use and Regional Economy Impact Assessment

The number of properties severed by each of the proposed bypass alignments ranges from 5 to 11, with the Dry Creek and Western Options having the most severe impact.

Table 6-2 Directly impacted and severed properties

Proposed bypass option	Freehold lots (property parcels) directly impacted by ROW (PFI*)	Crown land lots directly impacted by ROW**	Total no. of properties impacted by land use function***	Lots severed ****	Bypass length (Total travel distance) (km compared to existing Northern Highway)	Total area of land required for ROW (Ha)
Dry Creek	51	6	35	11	11.2 (25.4)	165
O'Gradys Road	81	7	61	8	12.3 (24.8)	166
Quinns Road	89	5	67	5	12.7 (25.2)	173
Sunday Creek Road	61	3	45	6	11.0 (31.9)	149
Western	69	2	47	10	17.1 (29.6)	197

Source: VicRoads

* PFI – Persistent Feature Identifier

** Crown land acquisitions are not subject to the *Land Acquisition and Compensation Act 1986*, but will contribute to land use change and may require transfers between public landholders.

******* Excludes Crown land and takes account of landowners with multiple land parcels (PFI). Data sourced from VicRoads.

******** The effective number of lots severed may not accurately represent the impact of severance as a number of agricultural properties on separate titles are run as a single business, for example when owned by different members of the same family.

Table 6-3 shows the total area of land for each affected planning zone in the study area, as well as the area lost for each of the proposed bypass alignments from these zones. Also shown is the proportion of the total area for each zone that would be lost for each of the proposed alignments.

The greatest area of land required to secure the road reserve is 197 Ha for the Western Option, and the least is 149 Ha for the Sunday Creek Road Option. These areas are considered to be small in the regional context. While the area affected by each of the proposed alignments is small in a regional sense, some zones are disproportionately affected by some options.

The Western Option would result in the loss of approximately 2 Ha of the Public Use – service and utility zone within the study area due to its potential impact on the property reserved for the wastewater treatment plant. The Western Option will not directly impact on the operation of the existing plant, however it may limit future expansion opportunities on the site. VicRoads have consulted with Goulburn-Murray Water on this issue and there are no current plans for expansion of the site.

6 Land Use and Regional Economy Impact Assessment

Table 6-3 Land lost from each affected planning zone

Planning zone	Area of land required for ROW (Ha)				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Low Density Residential	N/A	0.7	11.9	N/A	1.1
Public Conservation and Recreation	0.9	0.9	10.6	0.6	N/A
Public Park and Recreation	0.0	0.0	N/A	N/A	N/A
Public Use – Service and Utility	N/A	N/A	0.9	N/A	2.1
Public Use – Education	0.1	0.1	N/A	N/A	N/A
Public Use – Transport	1.9	1.1	0.3	0.1	0.3
Public Use – Local Government	0.4	0.4	0.4	0.4	N/A
Public Use – Other Public Use	0.0	N/A	N/A	N/A	N/A
Residential 1	N/A	N/A	N/A	N/A	0.6
Road - Category 1	21.8	26.0	37.1	12.4	37.0
Road - Category 2	2.8	2.4	1.1	7.3	0.5
Rural Living	23.9	45.0	29.7	23.9	9.7
Farming	113.3	89.6	80.2	85.7	145.3
Special Use - Earth And Energy Resources Industry	0.0	0.0	N/A	18.6	N/A
Special Use – Kilmore Racetrack	N/A	N/A	1.1	N/A	N/A
Total area of land required for ROW*	**165**	**166**	**173**	**149**	**197**

Source: VicRoads

* Note: Sum of area of zones required may differ from total area of land required for ROW due to differences in calculation methods.

All proposed alignments with the exception of the Western Option will affect between 20–45 Ha of land zoned Rural Living owing to the fact that they pass through what are essentially peri-urban areas of Kilmore.

The Quinns Road Option will affect more than 10 Ha of land zoned Low Density Residential, which is reflected by the proportionally larger number of lots affected by this proposed alignment in comparison to the other four proposed alignments (see Table 6-3). A similar area of the Public Conservation and Recreation will also be affected by this proposed alignment. This zone includes the Kilmore Racing Club and Kilmore Golf Course respectively, both of which are highly valued assets by the community. While the Quinns Road Option will have no direct impact on these facilities, its proximity is a sensitive issue within the community and any amenity impacts should be mitigated through appropriate measures, which will then contribute to the cost of construction of this option.

While part of the land zoned for the racecourse reserve would be acquired should the Quinns Road Option be selected, the land required is not used by the racing club. A representative of the Kilmore Racing Club identified the most significant impact of the Quinns Road Option would be the potential impact on proposed development opportunities. The club currently has plans to develop the eastern part of their property with additional stabling and training facilities, which would in their opinion no longer be viable owing to the sensitivity of horses to traffic noise.

At the time of consultation, it was understood that the Quinns Road Option would impact the sixth tee of the Kilmore Golf Course, which would reduce the overall length of the hole, potentially reducing a par five to a par four hole. Following VicRoads consultation with the club on the matter, the concept design was amended and the option now does not directly impact the Golf Course.

However, given that this was not known at the time of consultation, feedback received from stakeholders will not reflect the amended design and the assessment of the Quinns Road Option may therefore be more conservative than it would have been had this information been available at the time of consultation.

All options will affect between 80–145 Ha of land zoned for farming. However, these areas are small in the regional context, so that while the impact on individual landholders may be considerable, the impact on faming on a regional scale will be minimal.

6.3.3 Land Use Change

Of the 60 residential and agricultural landowners consulted[2], 9 people, or 13% (Figure 6-2) stated that they anticipated land use changes in the medium term (i.e. next 10 years) should no bypass be built. These changes included subdivision of land and the commencement of new business activities on the property in question. Such expectations are consistent with the underlying land use change pressures on the rural urban fringes of major human settlements.

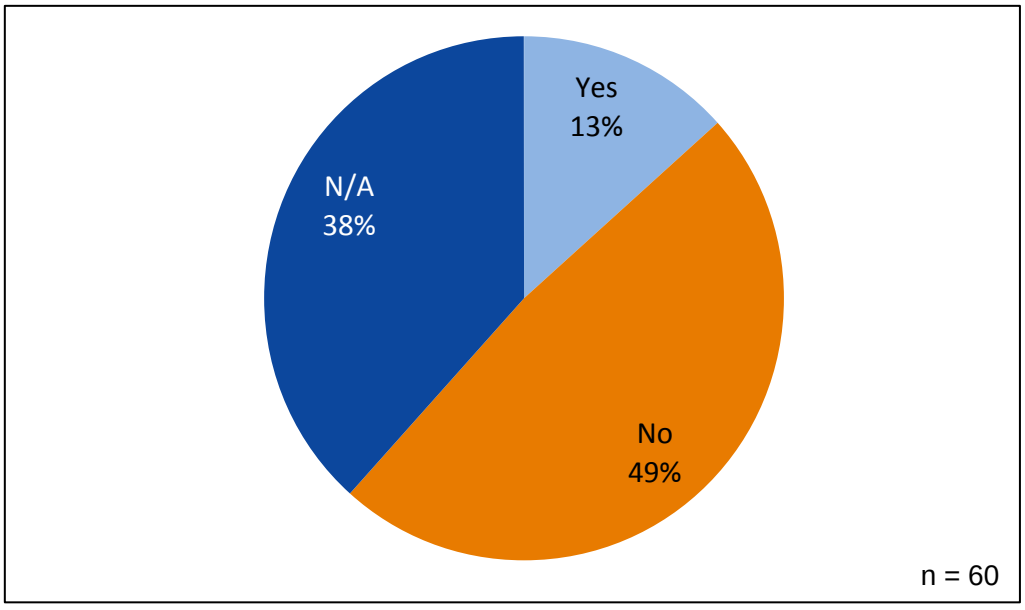


Figure 6-2 Anticipated future land use changes

[2] Note: business operators were not asked about perceived land use changes resulting from the five proposed bypass alignments.

6 Land Use and Regional Economy Impact Assessment

Of the 88 individuals consulted, only a small proportion of stakeholders specified that any of the proposed bypass alignments would have either a positive or a negative impact of the future land use development opportunities for their properties. Therefore, most viewed the effect of any of the alignments on the future land use potential of their properties as being relatively neutral. The results of this interview question are illustrated in Figure 6-3.

The O'Gradys Road alignment was identified as having the greatest negative impact on future land uses due to the negative impacts on the ability to develop the agricultural potential of the land.

Overall, the Western Option was considered by respondents as having the most positive impacts on future land use opportunities. Reasons given were typically because landowners felt there would be greater incentive for the Mitchell Shire Council to seek an amendment to the planning scheme to rezone land to the west of the Kilmore township from farming to rural residential or low density residential, which would allow properties to be subdivided.

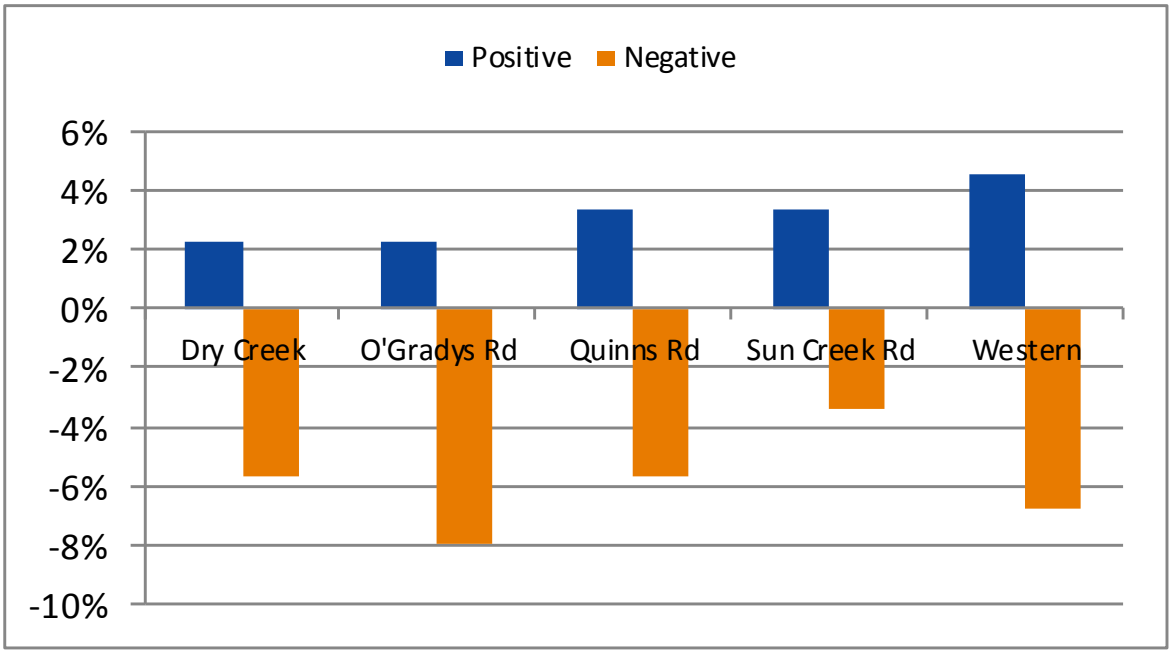


Figure 6-3 Impact of proposed bypass alignments on future land development opportunities

6.3.4 Ease of Access

Table 6-4 shows the proportion of the 88 landholders and businesses that reported either a positive or negative impact on accessibility as a result of each of the proposed bypass alignments.

Between 14–16% of stakeholders consulted perceived there to be a positive impact on accessibility for all five proposed bypass alignments. This is because most respondents who believed a bypass would improve accessibility to Melbourne thought that all options would meet this need equally. The Quinns Road Option recorded the highest percentage of respondents who felt their access locally would be negatively impacted.

6 Land Use and Regional Economy Impact Assessment

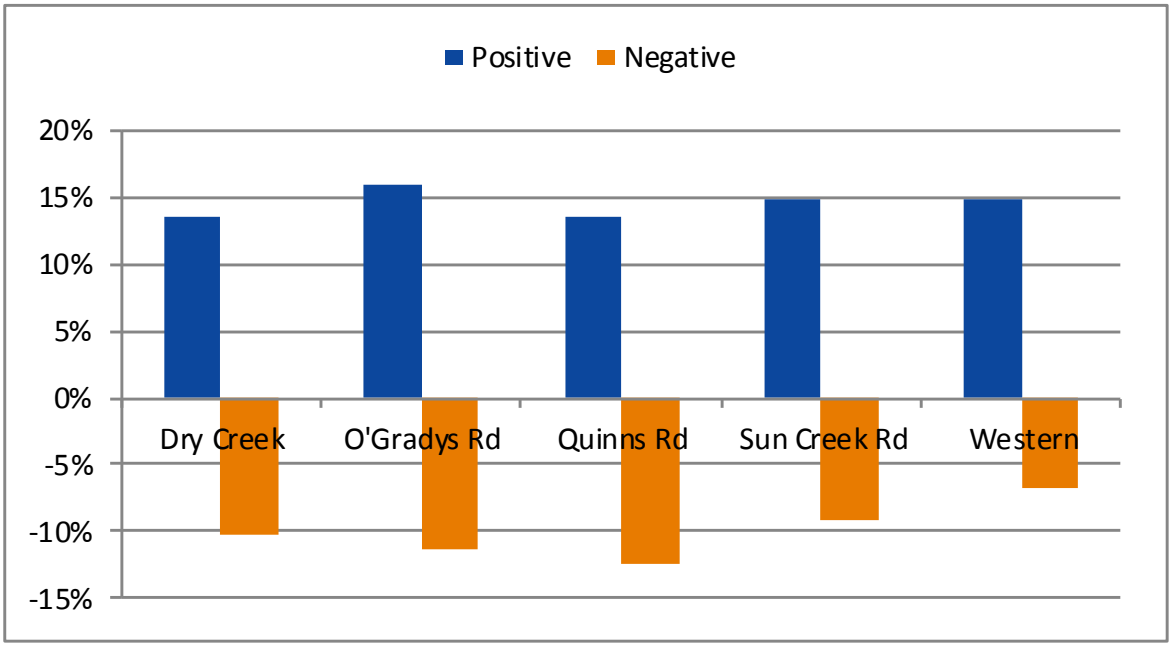


Figure 6-4 Impact of proposed bypass alignments on ease of access

6.3.5 Sensitive Land Uses

The key sensitive land uses within the study area are those of native vegetation and recreational activities. Both are protected by various clauses in the Mitchell Planning Scheme, as discussed in Section 5.

These land uses, and associated services provided to both the local and wider regional communities are particularly sensitive to land use changes due to their inability to adapt to such changes. In the case of native vegetation, the clearing of such to secure the corridor for any alignment will result in a loss or reduction of habitat quality and provision of associated ecosystem services.

The potential to reduce this loss in ecosystem services (including biodiversity) over time will be determined by the offset requirements for each of the alignments (refer to Table 3-1). The costs of meeting these offset requirements should be reflected in the costs of constructing each of the proposed alignments. With respect to recreational facilities these often form an integral part of the local community and provide a sense of place, pride and of belonging particularly for members of clubs that are frequently associated with these facilities. Such clubs also often have a rich history that reinforces these attributes. Compared with other land uses such as commercial activities, the impacts on recreational facilities can often cause significant disruption and loss in the attributes that are valued by the local community. Appropriate mitigation measures should be considered in the case of impacts on the amenity of accessibility of these facilities, which will then become an issue of construction cost.

6.3.6 Schools

Of the four schools consulted, two indicated the Western Option as their least preferred option and two as their most preferred. Those that rated this option as their last preference were concerned about the additional traffic it may create in the western section of the township due to local traffic accessing the bypass from Lancefield Road. Conversely, one of the schools which draws staff and students from across the region and beyond favoured the Western Option due to a perception of improved accessibility to these areas. Representatives from two schools raised the need for additional crossing facilities between the Kilmore International School and the Kilmore Recreation Centre to provide safe access for student and staff pedestrians.

6.3.7 Kilmore District Hospital

A representative from Kilmore District Hospital identified the Western Option as their most preferred and the Quinns Road Option as their least preferred of the proposed alignments. Concern was expressed about the impact of the Quinns Road Option on the safe entry and egress to the hospital due to the potential for increased in traffic volumes on Rutledge Street/Monument Road. It was considered by the representative of the hospital that a pedestrian crossing, as well as the ability to access the hospital from the rear of property, may be needed to mitigate this impact for the Quinns Road Option and should be factored into assessing the relative costs of constructing the various alignments. It should be noted that there is no connection of Rutledge Street to the Quinns Road Option and this will not significantly impact traffic flow past the hospital.

6.3.8 Land Use Impacts on the Regional Economy

Understanding the key land use impacts of the proposed alignment options for the Kilmore-Wallan Bypass is a preliminary step to understanding some of the key impacts each option may have on the regional economy. In particular, the following land use impacts are key drivers of the associated impacts on the regional economy:

- the area of land lost
- number of properties severed and associated impact on the profitability of existing businesses
- ease of access
- public health and safety
- amenity

A reduction in the amount of land available for economic activities as well as the severance of properties increases the cost of doing business relative to the income that can be derived from a property.

Similarly, ease of access has ramifications for the customer base available to a business, while public health and safety as well as amenity will have impacts on the attractiveness of the area local and non-local visitors.

6.4 Regional Economy Impacts

6.4.1 Overview

From a regional economy perspective, the impacts on business, tourism and agriculture of any proposed bypass alignment (or any other transport infrastructure) will be determined by three key drivers:

1. The costs of construction and ongoing maintenance costs
2. Travel-time savings which, in essence, are a measure of increased efficiency in meeting future transport needs both with respect to the movement of people and freight.
3. The change in income, costs and, hence, profits of businesses directly affected such as through the loss of land, land severance and/or in the number of "passing-through" customers.

In isolating these three drivers, it is URS' understanding that each of the proposed bypass alignments would be designed to meet future transport demand, road safety, public health, noise and environmental requirements. Accordingly, it is assumed that these design aspects will be reflected in the costs of construction for each alignment and need not be considered further as part of the Land Use and Regional Economy assessment in identifying the preferred alignment. This means that the significant measure of any differences between the alignments is reflected in construction and maintenance costs and the travel-time savings of each option.

6.4.2 Construction Costs (including mitigation measures)

The cost of constructing the Kilmore-Wallan Bypass is to be funded by consolidated State revenue, the expenditure of which has the potential to cause an increase in the level of economic activity (compared with the current situation) within the regional economy.

VicRoads has advised that the total estimated costs will be inclusive of costs of land acquisition, severance and mitigation measures such as pedestrian crossings, meeting contemporary safety and traffic standards, and of complying with existing policy, strategic objectives and regulatory requirements of state and local government.

These costs are currently being finalised in consideration of mitigation measures proposed by the individual specialist's studies. Based on preliminary estimates VicRoads has advised that the indicative relative order of lowest to highest option cost is shown in Table 6-4.

Table 6-4 Relative construction costs

Proposed alignment option	Relative costs
Western	Lowest
Quinns Road	⇩
Sunday Creek Road	
O'Gradys Road	
Dry Creek	Highest

Source: VicRoads

The larger the overall expenditure and the higher the share of labour sourced from local residents and capital inputs sourced from local manufacturers / businesses, the greater the stimulatory impact on the local economy during construction. However, given that the nature of the inputs to the construction of the five proposed alignments would be expected to be similar, including from where the inputs were to be sourced, this does not mean that the option with the highest relative construction costs should become the preferred option. There are other considerations which must also be taken into account such as the travel-time saving benefits relative to construction costs and the impact of the associated corridor on current land uses, facilities and businesses in the study area.

In addressing these other considerations, it is important to recognise that the stimulatory benefits to the regional economy are only temporary for the construction phase only, whereas the travel-time benefits and impact on the study area will be ongoing. Because all roads will be built to the same design standards and the similarity in overall length, the ongoing operational and maintenance costs of the alignments are expected to be similar and not a differentiator in determining the preferred option. Furthermore, the use of government funds to construct the Kilmore-Wallan Bypass means that those funds are no longer available to meet other government priorities and that there is an opportunity cost involved. There is an additional opportunity cost involved, in terms of forgone benefits from current land uses, if the choice of alignment means that a change in land use is required. These aspects are discussed further below.

6.4.3 Travel-Time Savings

The estimated total value of annual travel-time savings to 2041 for the five proposed bypass alignments as determined by AECOM (2012) are summarised in Figure 6-5.

The value of travel-time savings for heavy vehicles ranges from approximately $1 million (Sunday Creek Road Option) to approximately $1.7 million (Quinns Road Option). By contrast, the savings for light vehicles ranges from $4.2 million (Sunday Creek Road Option) to $9.5 million (Quinns Road Option). The much higher value and broader range of savings for light vehicles is indicative of the potential of the different alignments to meet local transport needs, particularly for the commuter traffic to metropolitan Melbourne.

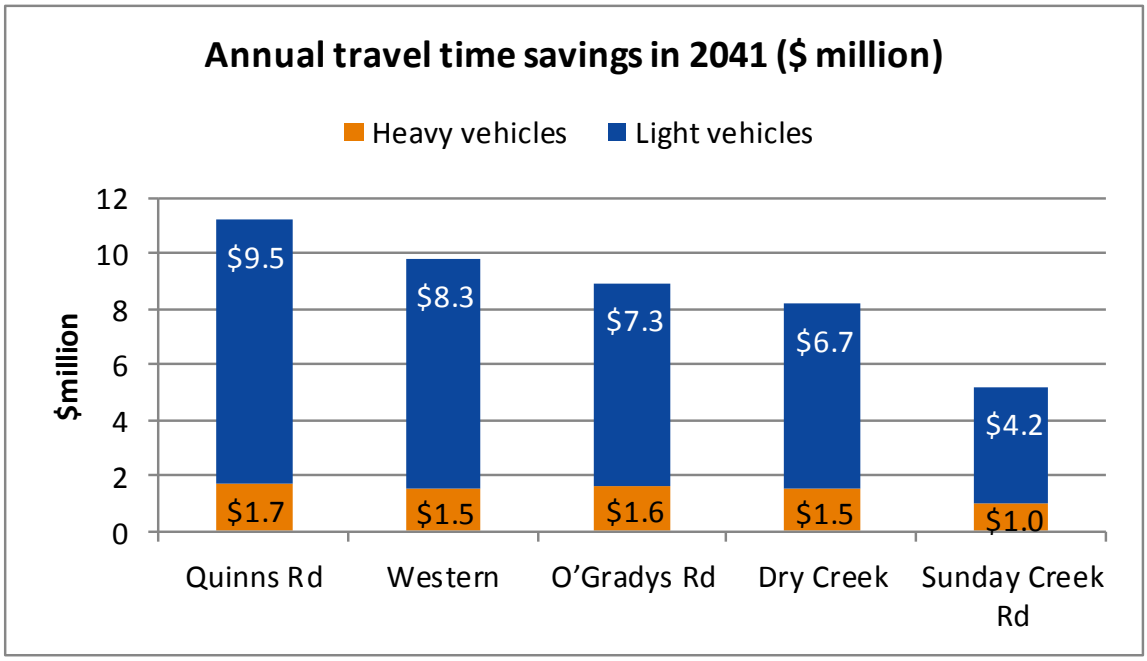


Figure 6-5 Estimated value of travel-time savings (from construction to the year 2041)

These travel-time savings are, in essence, a measure of the increased efficiency of the bypass in meeting future transport needs compared with the existing road network. As such, the savings are a measure of the benefits to the economy of the wider region, especially to the manufacturing, construction, transport, postal and warehousing industries, which are highly dependent on transport and constitute a significant part of the regional economy (refer to Figure 4-1)

The savings would also be expected to include the benefits to local residents and tourists/visitors in meeting their day-to-day travel needs. The estimated benefits would also include those derived by the agricultural sector in obtaining inputs supplies and in the transport of produce to market for sale and consumption in either Australia or overseas. Any reduction in travel times and associated transport costs would have the effect of increasing the profitability of local businesses and, particularly for agricultural enterprises, their international competitiveness. Such consequences will be beneficial to the regional economy, as well as for the wider Victorian economy.

6.4.4 Impacts on Agricultural Businesses

As shown in Table 6-5, all alignments will result in the loss of land for agriculture, which would cause a loss on income to individual landholders and the regional economy. However, while some individual properties may no longer be viable as agricultural businesses due to severance or loss of land, the remaining land within the study currently used for agriculture would still be suitable for that use. Furthermore, from a regional economy perspective, the loss of land from agriculture to secure the ROW for any of the alignments would be very small compared with the total area of land used for agriculture.

6 Land Use and Regional Economy Impact Assessment

For each alignment, a guide to the value of agriculture production that would be forgone can be gained by considering the area of land that would no longer be available for agriculture, together with the expected gross revenue that would be derived from that land. As noted in Section 4.1, the main agricultural businesses in the wider region are mixed cropping/livestock enterprises.

Given this and with reference farm survey data provided by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) for the wheat-sheep zone for the 2010–11 financial year, the gross income per hectare is calculated at $219 (based on an average property of 2311 hectares and total cash receipts of $506,880). This is considered to be a useful guide to calculating the gross income per hectare that would be forgone in the study area from the loss of land from agriculture in the absence of individual data for the properties affected by the acquisition of land to secure the ROW.

Presented in Table 6-5, are the estimated reductions in gross income from the loss of land from agricultural production for each alignment based on the estimate of gross cash receipts derived from ABARES Farm Survey data. The loss varies from between $17,000 for the Quinns Road alignment to approximately $25,000 for the Dry Creek Alignment. Overall, such potential losses would be small from a regional economy perspective and consequently would not be a major determinant of the best performing option. This means that the impact of each alignment on the value of agricultural production lost can be set aside in assessing the relative performance of the five alignments, even though the impact of different alignments on individual landholders/agricultural businesses will vary. In this situation, the individual property impacts within the study area become a matter for compensation, with the amount paid being included in the costs of construction for each alignment. By doing so, any differential impact on the loss of value of agricultural production from within the study area would be included indirectly in the relative assessment of the alignments.

Table 6-5 Value of lost agricultural production

Proposed alignment option	Area of agricultural land lost (ha)	Value of lost agricultural production ($ / yr)
Dry Creek	113.3	$24 813
O'Gradys Road	89.6	$19 619
Quinns Road	80.2	$17 568
Sunday Creek Road	85.7	$18 773
Western	145.3	$31 815

Plantation forestry

The proposed Dry Creek Road alignment would require acquisition of land currently used for plantation forestry. This area is currently planted with a Blue Gum (*Eucapyptus globulus*) which is due to be harvested in approximately 2020 over a two-three year period. Given the construction of the Kilmore-Wallan Bypass is scheduled for 2014–17, there would be a yield loss as a result of early harvest which should be considered as a cost of construction/ compensation issue.

With regard to the future production value of the land, should the area no longer be used as a timber plantation, the land could be returned to agricultural production and the associated loss in value determined using the information shown in Table 6-5. Future losses are also considered under the *Land Acquisition and Compensation Act 1986* and have been factored into the cost of construction with regards the plantation.

6.4.5 Impacts on Tourism Dependent Businesses

Tourism dependent businesses in the study area largely consist of accommodation providers. However, many businesses such as the Kilmore Racing Club and Kilmore Golf Club attract a number of visitors to the area and, by doing so, are important to the regional economy. Accordingly, the ease of access to such facilities and the extent to which the integrity of the facilities is maintained or enhanced are important considerations in identified the preferred alignment.

Given that accommodation businesses are unlikely to rely on through-traffic for a significant proportion of their income, the removal of bypassable traffic from the study area is unlikely to have a significant impact on this sector. By contrast, they may in fact experience an increase in visitors in future arising due to improved access as a result of the increase in safety, amenity and overall quality of the public realm, which has the potential to make the two townships a more desirable tourist destination.

6.4.6 Impacts on Industrial Businesses

The key impact on industrial businesses in the study area of any of the proposed bypass alignments will be in the form of travel-time savings which, in turn, capture ease of access considerations. Businesses would benefit from reduced costs of obtaining inputs and supplies and in the transport of products to market for sale and consumption. Any reduction in travel times and associated transport costs would have the effect of increasing the profitability of local businesses and the regional income derived.

Hanson Construction Materials Pty Ltd, for example, expressed a preference for the Dry Creek Road and Quinns Road Options (in that order) as the alignments that would most improve the ease of access to Melbourne, the key destination for their products outside the local region.

6.4.7 Impacts on Retail and Commercial Sales (Including Highway Dependent) Businesses

The primary impact on retail and commercial sales businesses will be changes to through-traffic in the main street. This change however, may have multiple, offsetting impacts. A reduction in through-traffic may result in a reduction in customer numbers from this source but others changes which could be driven by the construction of a bypass, such as increased access to the employment areas of metropolitan Melbourne, could result in a greater increase in resident population and, hence, future customers.

6 Land Use and Regional Economy Impact Assessment

Of the eleven retail, food, drink and accommodation businesses interviewed during the consultation period, ten were able to provide an estimate of the split between local and non-local customers. These businesses reported that between 50–98% and an average of 81% of their customers are local. However, some non-local customers would continue to patronise these businesses, meaning the potential loss of customers would be less than 19%. In addition, the increase in safety, amenity and overall quality of the public realm has the potential to make the two townships a more desirable tourist destination, which may lead to an increase in retail trade in Kilmore and Wallan.

Businesses that might be expected to rely most heavily on trade arising from traffic travelling on the Northern Highway include food and beverage retailers and newsagents. Operators of businesses of these types indicated that the expected impact of a bypass on their business would be minimal. Some short-term reductions in trade would likely be expected, however the longer term amenity benefits and expected population growth would likely offset such a reduction.

7

Impact Assessment Evaluation Process

7.1 Study Objectives, Sub-Objectives and Assessment Criteria

The nine objectives established by VicRoads for the Kilmore-Wallan Bypass Planning Study were used by URS to prepared corresponding sub-objectives for the relevant objectives for the Land Use and Regional Economy component. These sub-objectives were developed for Study Objectives 2, 3, 4, 5 and 9 and were endorsed by VicRoads (refer to Section 1.6).

Study objectives, sub-objectives and assessment criteria are shown in Table 7-1. An assessment of the performance of each of the five proposed bypass alignments against these criteria is shown in Table 7-2.

7 Impact Assessment Evaluation Process

Table 7-1 Land use and regional economy study objectives, sub-objectives and assessment criteria

No.	Study Objectives	Sub-Objectives	Assessment Criteria
1.	Improve road safety and enhance the functionality of the road network in town centres.	No separate sub-objective proposed.	No separate Land use or Regional Economy Assessment Criteria required.. No relevant Land Use or Regional Economy Assessment Criteria.
2.	Improve transport connectivity, freight movement and efficiency for bypassable traffic.	Assess the local and regional economic impacts/benefits for each of the five proposed corridor options.	Evaluate the regional economic impacts/benefits of each option in terms of: • Travel-time savings (wider region – to be provided by VicRoads) • Land use change (study area – from consultation) • Ease of access (study area – from consultation) • Relative costs of construction (wider region – to be provided by VicRoads) The data obtained through consultation will be validated against publicly available data sources such as from the ABS regional community profile and the farm survey data from ABARES.
3.	To achieve acceptable consistency with current and proposed land uses and support the long term planning and development of the Kilmore-Wallan area.	Assess policy, legislation and strategic growth plans relevant to land use and its implications for the project.	Evaluate the capacity of the alignment options to facilitate the objectives of: • Commonwealth and State planning controls, legislation, policy and strategies (i.e. *Planning and Environment Act 1987, Transport Integration Act 2008*). • Local Government planning controls, policies and strategies (i.e. Mitchell Planning Scheme). Evaluate compatibility of options with the future land uses based on levels of population growth, housing, community services and urban growth boundary/ township boundaries.
4	Minimise displacement and severance of communities, community facilities and agricultural land, to the extent practicable.	Assess the changes in land use and associated impacts on the regional economy for business, tourism and agricultural activities for each of the five proposed corridor options.	Evaluate the five selected corridor alignments impacts, measured by: • Number of properties/area of land to be acquired or partially acquired. • Land severance, lot fragmentation and usability of existing properties. • Impact on access to properties, businesses, infrastructure and community services. • Impact on public open space and community facilities.

7 Impact Assessment Evaluation Process

No.	Study Objectives	Sub-Objectives	Assessment Criteria
5	Improve town amenity by removing bypassable traffic, minimising noise and visual impacts of the new road and minimising impacts on key community facilities during construction and operation of the bypass.	Assess the potential benefits of the removal of traffic from the main street of Kilmore and Wallan to revitalise the commercial area.	Evaluate the five alignment options ability to: • Reduce trucks and through traffic from the commercial areas. • Economic benefit to commercial and employment activity.
6	Avoid or minimise impacts on areas and features of ecological significance, to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
7	Avoid or minimise impacts on areas and features of heritage significance, to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
8	Avoid or minimise impacts on water quality, hydrology and floodplain to the extent practicable.	N/A	No relevant Land Use or Regional Economy Assessment Criteria.
9	Provide a balanced outcome giving consideration to environmental, economic and social factors.	To inform the selection of the preferred corridor based on minimising adverse impacts and highlighting positive land use and regional economic benefits.	Determine which corridor option would provide the greatest net benefit to the local community, regional economy and Victoria overall from a land use and regional economy perspective.

7.2 Relative Assessment of Proposed Alignments

VicRoads provided a seven-level rating scale (presented in Figure 7-1) that contains ratings ranging from “Very Well” to “Very Poor” that will be used to complete an Objective Based Evaluation Matrix (OBEM). This will determine the relative performance of the proposed bypass alignments with respect to the study objectives and sub-objectives.

To apply this rating scale, five aspects were selected to provide the central focus of the land use and regional economy assessment, namely:

- area of land required
- change in current land use
- land severance and associated increases in cost of doing business
- customer numbers at commercial businesses
- access to private property, community services and infrastructure and local road networks.

These aspects need to be assessed in the context of the relative cost-effectiveness of the five alignments in meeting the study objectives established by VicRoads. In essence, it is the alignment that would provide the largest travel-time savings relative to costs of construction which will provide the greatest benefits to the study area, the regional economy, and Victoria, particularly when the costs of mitigation measures are considered.

Ratings Table for Kilmore-Wallan Bypass Options Assessment

Potential Project Benefits	Rating Colour Code	Potential Project Disbenefits
Significant benefit to the State Superior benefit to the region Policy consistency with superior positive impact	VERY WELL 3	
Moderate benefit to the State Significant benefit to the region Superior benefit to the locality Policy consistency with significant positive impact	WELL 2	
Moderate benefit to the region Significant benefit to the locality Policy consistency with moderate positive impact	MODERATELY WELL 1	
Minimal benefit at any level	NEGLIGIBLE 0	Minimal disbenefit at any level
	MODERATELY POOR -1	Moderate disbenefit to the region Significant disbenefit to the locality Policy inconsistency with moderate negative impact
	POOR -2	Moderate disbenefit to the State Significant disbenefit to the region Severe disbenefit to the locality Policy inconsistency with significant negative impact
	VERY POOR -3	Significant disbenefit to the State Severe disbenefit to the region Policy inconsistency with severe negative impact

Figure 7-1 Objective Based Evaluation Matrix Rating Scale

7.3 Application of Assessment Criteria to Bypass Options

The assessment criteria presented in Table 7-1 were used to identify the information to be obtained through the stakeholder consultation process, from other studies for the various components of the Planning Study, and from other public sources. The information obtained and associated analysis, both quantitative and qualitative, is presented in Sections 3, 4, 5, and 6.

In turn, the information presented in these sections will now be used to apply the assessment criteria to each potential alignment in order to assess their relative merit. Because both quantitative and qualitative data are presented, a ”tick” system was developed to determine relative merit. To illustrate, if an alignment was assessed as performing well against a particular criterion, it would be assigned three ticks (✓✓✓). If another alignment were assessed as not performing as well, it may be assigned two ticks (✓✓), or a single tick (✓). The more ticks allocated, the greater the potential relative merit of the proposed bypass option.

In other situations, if no material differences were determined between the alignments for an assessment criterion, no ticks were assigned. In essence, the influence of that assessment criterion would be the same for all alignments and, accordingly, would not influence the determination of the preferred alignment.

The application of the assessment criteria to assess the relative merit of each proposed bypass option is presented in Table 7-2. This assessment is based on the underlying need to increase the capacity of the existing road network in the study area and remove heavy vehicles from Sydney Street Kilmore.

The allocation of ticks was then used to integrate with the seven-level OBEM rating scale provided by VicRoads. This integration with the OBEM rating scale is shown in the ‘Overall Rating’ provided in Table 7-2. This was achieved by assigning the rating colour code from the rating scale based on the total number of ticks assigned to each alignment following consideration of the potential project benefits and dis-benefits defined in the rating scale.

7 Impact Assessment Evaluation Process

Table 7-2 Relative performance of the five proposed bypass alignments

Assessment Criteria	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
2. Improve transport connectivity, freight movement and efficiency for bypassable traffic.					
Annual travel-time benefit (light and heavy vehicles) (Source: AECOM)	✓✓ $8m	✓✓ $9m	✓✓✓ $11m	✓ $5m	✓✓ $9.8m
Land use change (refer to Table 6-3)	✓	✓	✓	✓	✓
Ease of access (within study area and for commuter traffic)	✓	✓✓	✓✓✓	-	✓✓
Relative construction costs (Source: VicRoads) (refer to Table 6-4)	✓	✓✓	✓✓✓	✓✓	✓✓✓
3. To achieve acceptable consistency with current and proposed land uses and support the long term planning and development of the Kilmore-Wallan area.					
Commonwealth & State planning controls, legislation, policy and strategies	-	-	-	-	-
Local Government planning controls, policies and strategies	-	-	-	-	-

7 Impact Assessment Evaluation Process

Assessment Criteria	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
4. Minimise displacement and severance of communities, community facilities and agricultural land, to the extent practicable.					
Number of properties (impacted by land use function) / area to be acquired or partially acquired (total area of land required for road reserve (ROW))	✓✓ 35 /165 ha	✓✓ 61 /166 ha	✓ 67 /173 ha	✓✓ 45 /149 ha	✓✓ 47 /197 ha
Land severance, lot fragmentation and usability of existing properties.	✓ 11	✓✓ 8	✓✓✓ 6	✓✓✓ 5	✓ 10
Impact on access to properties, businesses, infrastructure and community services.	✓✓	✓✓	✓✓	✓	✓✓✓
Impact on public open space and community facilities.	✓✓	✓✓	✓	✓✓	✓✓
5. Improve town amenity by removing bypassable traffic, minimising noise and visual impacts of the new road and minimising impacts on key community facilities during construction and operation of the bypass.					
Reduce trucks and through traffic from the commercial area	✓✓	✓✓	✓✓✓	✓	✓✓
Economic benefit to commercial and employment activity	✓	✓	✓✓✓	✓	✓✓
Total score (number of ticks)	**15**	**18**	**23**	**14**	**20**
Overall rating	**MODERATELY POOR**	**MODERATLEY WELL**	**WELL**	**MODERATELY POOR**	**WELL**

8

Findings

8.1 Integrated Assessment of Bypass Alignments

As presented in Table 7-2, a range of assessment criteria were used for determining the performance of each alignment. These criteria vary in the extent to which they measure impacts of the alignments on the study area compared to the regional economy and Victoria more broadly. The aspects which determine the potential benefits and therefore their rating score of the alignments apply mainly to the regional and state level.

Accordingly, there is a need to integrate these two approaches. This also provides further substantiation for identifying the Quinns Road and Western alignments as most likely to constitute the better performing options from a land use and regional economy perspective. This integration is presented in Table 8-1 and has been based on the relative costs of each alignment and it has been assumed that any further costs of mitigation measures will not affect the relative cost of each alignment.

Aspects such as "consistency with current and proposed land uses and support for long term planning and development of the Kilmore-Wallan area" for which no material differences were identified between the different alignments have not been included in this integrated assessment. This is because such aspects would not influence the choice of the preferred alignment.

Similarly, the value of agricultural production that would be lost under the alignments is also considered a neutral factor. Such potential losses would be small from a regional economy perspective and consequently would not be a major determinant of the best performing option, and have therefore been set aside in assessing the relative performance of the five alignments. It is still acknowledged however that the impact of different alignments on individual landholders/agricultural businesses will vary (refer to discussion presented in Section 6.4.4). In this situation, the individual property impacts within the study area become a matter for compensation, with the amount paid being included in the costs of construction for each alignment. By doing so, any differential impact on the loss of value of agricultural production from within the study area would be included indirectly in the relative assessment of the alignments and have not been assessed separately in Table 8-1.

No alignment option is rated as performing "Very Well". This is because of the relatively low travel-time savings compared with the likely costs of construction. However, this does not mean that the construction of a Kilmore-Wallan bypass is not justified to meet the underlying capacity constraint of the existing road network with respect to heavy vehicles passing through Sydney Street Kilmore and commuter traffic to and from metropolitan Melbourne.

Table 8-1 Integrated assessment of proposed bypass alignments

Alignment	Rating[1]	Assessment
Dry Creek	**MODERATELY POOR**	The major consideration in assigning a rating of "Moderately Poor" are the low travel-time savings (second lowest of all options) and the highest relative construction costs for all options. These two aspects alone mean that the potential benefits to the region and the state would not be significant compared to the other alignments, as well as to other potential transport infrastructure projects. The low travel-time savings from light vehicles also indicates that this option would not perform as well as any of the other options in meeting the travel needs of commuter traffic from both Wallan and Kilmore to the employment areas of metropolitan Melbourne.

8 Findings

Alignment	Rating[1]	Assessment
O'Gradys Road	**MODERATLEY WELL**	Compared mainly with the Dry Creek Alignment, the O'Gradys Road is assigned a "Moderately Well" rating. This is due primarily to the lower relative construction costs and slightly higher travel-time savings. The higher travel-time savings for light vehicles also indicates that this option would perform better in meeting the travel needs of commuter traffic from both Wallan and Kilmore to the employment areas of metropolitan Melbourne. However, compared to the Quinns Road and Western Options, the benefits to the regional economy and Victoria would be less.
Quinns Road	**WELL**	The Quinns Road alignment is assigned a "Well" rating. This due to the fact it results in the highest travel-time savings and the second lowest relative construction costs. These two aspects alone mean that the potential benefits to the region and the state would be greater than for any other. The greater travel-time savings for light vehicles also indicates that this option would perform best in meeting the travel needs of commuter traffic from both Wallan and Kilmore to the employment areas of metropolitan Melbourne, as well as removing heavy vehicles from the main streets of Kilmore and Wallan. A potential disadvantage of this alignment is its proximity to existing resident areas and associated community facilities. This may require the implementation of further mitigation to the proposed alignments. These aspects will be informed by the results of other concurrent studies.
Sunday Creek Road	**MODERATELY POOR**	The major consideration in assigning a rating of "Moderately Poor" is the low travel-time savings (the lowest of all options) and the relatively high construction costs. These two aspects alone mean that the potential benefits to the region and the state would not be significant compared to the other alignments. The low travel-time savings for light vehicles also indicates that this option would not perform as well as any of the other options in meeting the travel needs of commuter traffic from both Wallan and Kilmore to the employment areas of metropolitan Melbourne.
Western	**WELL**	The Western alignment is assigned a "Well" rating. This is because it has the second highest annual travel-time savings (only $1.2m per annum lower than the Quinns Road bypass option) and relatively the lowest of all five options in construction costs. These two aspects mean that the potential benefits to the region and the state would be slightly lower than for the Quinns Road alignment but greater than the other three potential alignments. The travel-time savings for light vehicles also indicates that this option would perform better than any of the other three alignments in meeting the travel needs of commuter traffic from both Wallan and Kilmore to the employment areas of metropolitan Melbourne, as well as removing heavy vehicles from Street Kilmore and Wallan. Furthermore, these higher travel-time savings also indicate that the Western alignment would reduce the need to upgrade the Northern Highway to meet local commuter traffic in the short term. A potential advantage of this alignment compared to the Quinns Road alignment is that it passes through rural living areas and away from existing major resident areas and associated community facilities. Accordingly, the need to implement mitigation measures may be less than for Quinns Road. These aspects will be informed by the results of other concurrent studies.

[1] From OBEM Rating Scale presented in Figure 7-1

8.2 Conclusion

Based on the assessment presented in Table 7-2 and Table 8-1, the Quinns Road alignment is identified as the best performing alignment from a land use and regional economy perspective.

However, the Western alignment is also rated highly with the main difference between the two alignments arising from their impacts on existing land uses within the study area. These impacts require further consideration including being informed by the results of other concurrent studies and the further development and costing of mitigation measures.

9

References

AECOM, Transport Modelling and Economic Analysis for the Kilmore-Wallan Bypass Planning Study, Draft Zonal Demographic Documentation, Draft, prepared for VicRoads, June 2012

Ecology and Heritage Partners, Flora and Fauna Assessment and Spring Survey Kilmore-Wallan Bypass Planning Study, Draft Report, prepared for VicRoads, October 2012

10

Limitations

URS Australia Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of VicRoads and only those third parties who have been authorised in writing by URS to rely on this Report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Report.

It is prepared in accordance with the scope of work and for the purpose outlined in the contract dated 1 May 2012.

Where this Report indicates that information has been provided to URS by third parties, URS has made no independent verification of this information except as expressly stated in the Report. URS assumes no liability for any inaccuracies in or omissions to that information.

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It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

Any estimates of potential costs which have been provided are presented as estimates only as at the date of the Report. Any cost estimates that have been provided may therefore vary from actual costs at the time of expenditure.

A

Appendix A – Kilmore Structure Plan

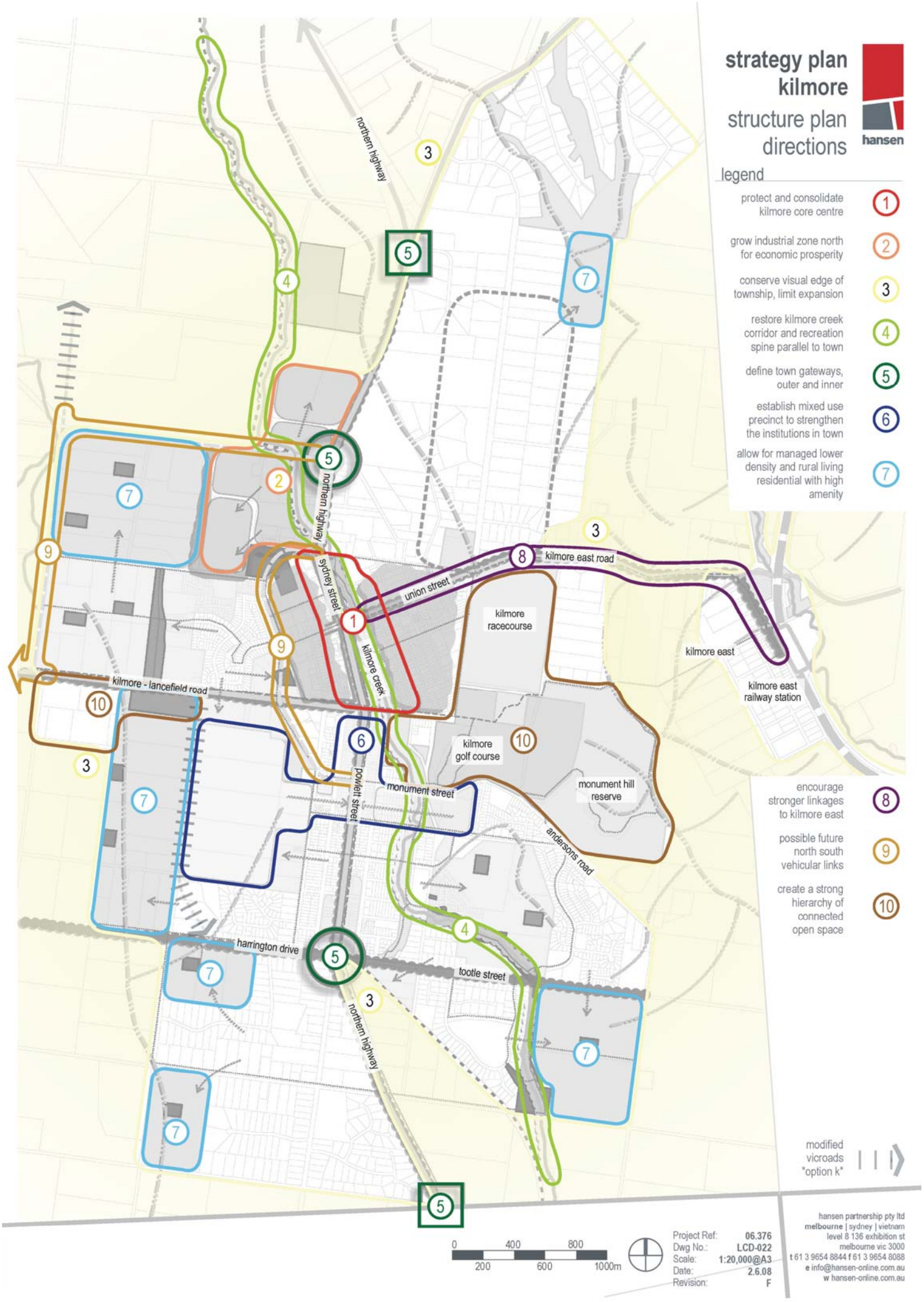

Figure 4; Structure Plan Directions

B

Appendix B – Landholder and Business Questionnaires

Kilmore Wallan Bypass Land Use and Regional Economy Study
Regional Economy Consultation—Agricultural Businesses

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your business.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the business or personal data you provide so as to ensure you cannot be identified. No personal or business details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - Business Details

Name of Interviewee:

1. Business name: 2. Precinct:

3. Description of current business operation:

4. Address: Postcode:

5. Yrs of operation:		6. Yrs in current location:		7. Yrs business operated by you:	

8. Property size:	ha	m^2	acres

9. Predominant Agricultural Type – If more than one type, rank in order of predominance. (1 being the most predominant agricultural type, 5 being the least predominant type).

Type	Rank	Type	Rank
Horticulture		**Livestock**	
Viticulture		**Fisheries**	
Cotton		**Dairy**	
Wool		**Equine**	
Other Crops		Type of crop:	
Other		Details:	

Section 2 – Business Operations

10. For your respective business operations, where is your main travel destination? I.e. where does your produce travel to?

Please tick all that apply.				
Within Kilmore District	Within Mitchell Shire	Interstate	Capital City	Detail Place Names:

Section 3 – Regional Economy Impacts

11. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	Information Session	Other VicRoads Contact, please elaborate

12. Please refer to the map showing each of the five options and locate your business.

For each option, please rate the impact on your business from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

13. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Rd	
Quinns Rd	
Sunday Creek Rd	
Western	

14. Please provide further information about your ranking in Question 13? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired (partially or whole)					
Loss of assets					
Property / land prices					
Land severance					
Business revenue associated with the land					
Sunk investment (land improvements and infrastructure)					
Agricultural Production					
Accessibility to your land for business purposes					
Employment associated with land					
Future land development opportunities					

14a. Additional Comments
I.e. quantify your response above (how many employees will be lost, what % of the business will it affect etc.).

15. How would your agricultural business change with each option? (In a positive or negative way) (Indicate N/A if not impacted).

Bypass Options	Explain business change as a result of each bypass option:
Dry Creek	
O'Gradys Rd	
Quinns Rd	
Sunday Creek Rd	
Western	

Section 4 – Mitigation Measures

16. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

17. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

18. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

Kilmore Wallan Bypass Land Use and Regional Economy Study
Regional Economy Consultation—Commercial Business

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your business.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the business or personal data you provide so as to ensure you cannot be identified. No personal or business details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - Business Details

Name of Interviewee:

1. Business name: 2. Precinct:

3. Description of current business operation:

4. Address: Postcode:

5. Yrs of operation:		6. Yrs in current location:		7. Yrs business operated by you:	

8. Property size:	ha	m^2	acres

Section 2 – Business Operations

9. Please estimate the proportion of your business customers that originates from:

Local customers (within 20km): ____ % Non Local: ____ %

10. For your respective business operations, where is your main travel destination? I.e. where do you travel to for business needs / where do your products travel to / where do your customers travel from?

Please tick all that apply.				
Within Kilmore District	Within Mitchell Shire	Interstate	Capital City	Detail Place Names:

Section 3 – Regional Economy Impacts

11. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	Information Session	Other VicRoads Contact, please elaborate

12. Please refer to the map showing each of the five options and locate your business.

For each option, please rate the impact on your business from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

13. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

14. Please provide further information about your ranking in Question 13? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired					
Loss of assets					
Property / land prices					
Land severance					
Business revenue associated with the land					
Sunk investment (land improvements and infrastructure)					
Accessibility to your land for business purposes					
Employment associated with land					
Future land development opportunities					

14a. Additional Comments
I.e. quantify your response above (how many employees will be lost, what % of the business will it affect etc.).

15. How would your business change with each option? (In a positive or negative way) (Indicate N/A if not impacted).

Bypass Options	Explain business change as a result of each bypass option:
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

Section 4 – Mitigation Measures

16. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

17. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

18. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

Kilmore Wallan Bypass Land Use and Regional Economy Study
Regional Economy Consultation—Education Businesses

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your school.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the business or personal data you provide so as to ensure you cannot be identified. No personal or business details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - School Details

Name of Interviewee:

1. School name: 2. Precinct:

3. Description of current business operation (primary/secondary, or both?)

4. Address: Postcode:

5. Yrs of operation: 6. Yrs in current location:

7. Property size:	ha	m^2	acres

8. How many students do you have?

9. What proportion of your students are:

Day / local students: ____ % Boarders: ____ %

10. How many staff do you have? ____ FTE

Section 2 – School Operations

11. For your respective school operations, where do most of your **day / local students** travel to / from?

Please tick all that apply.				
Within Kilmore	Wider Kilmore District	Within Mitchell Shire	Wider Victoria	Details Place Names (if required):

12. Are boarders living on campus? Please circle. Yes / No

13. For your respective school operations, where do most of your **staff** travel to / from?

Please tick all that apply.				
Within Kilmore	Within Kilmore District	Within Mitchell Shire	Wider Victoria	Details Place Names (if required):

14. What are the peak travel periods associated with the school and its operations? Please tick all that apply.

Before 0700	0700-0800	0800-0900	0900-1000	1000-1100	1100-1200	1200-1300	1300-1400	1400-1500	1500-1600	1600-1700	After 1700

Section 3 – Regional Economy Impacts

15. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	Information Session	Other VicRoads Contact, please elaborate

16. Please refer to the map showing each of the five options and locate your school.

For each option, please rate the impact on your school from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

17. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

18. Please provide further information about your ranking in Question 17? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired					
Loss of assets					
Property / land prices					
Land severance					
Business revenue associated with the land					
Sunk investment (land improvements and infrastructure)					
Accessibility to your land for business purposes					
Employment associated with land					
Future land development opportunities					

18a. Additional Comments
I.e. quantify your response above (what % of the business will it affect, how many employees will be lost etc.).

19. How would your school business change with each option? (In a positive or a negative way) (Indicate N/A if not impacted).

Bypass Options	Explain school business change as a result of each bypass option:
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

Section 4 – Mitigation Measures

20. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your school?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

21. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your school?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

22. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

Kilmore Wallan Bypass Land Use and Regional Economy Study
Regional Economy Consultation—Equine Businesses

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your business.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the business or personal data you provide so as to ensure you cannot be identified. No personal or business details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - Business details

Name of Interviewee:

1. Business name: 2. Precinct:

3. Description of current business operation:

4. Address: Postcode:

5. Yrs of operation:		6. Yrs in current location:		7. Yrs business operated by you:	

8. Property size:	ha	m^2	acres

Section 2 – Business Operations

9. Please estimate the proportion of your business customers that originates from:

Local customers (within 20km):	%	Non local customers:	%

10. For your respective equine business operations, if you travel, where is your main travel destination? I.e. where do you travel to for your business needs/where do your customers travel from?

Please tick all that apply.				
Within Kilmore District	Within Mitchell Shire	Interstate	Capital City	Detail Place Names:

Section 3 – Regional Economy Impacts

11. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	Information Session	Other VicRoads Contact, please elaborate

12. Please refer to the map showing each of the five options and locate your business.

For each option, please rate the impact on your business from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

13. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

14. Please provide further information about your ranking in Question 13? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired					
Loss of assets					
Property / land prices					
Land severance					
Business revenue associated with the land					
Sunk investment (land improvements and infrastructure)					
Agricultural Production					
Accessibility to your land for business purposes					
Employment associated with land					
Future land development opportunities					

14a. Additional Comments
I.e. quantify your response above (how many employees will be lost, what % of the business will it affect etc.).

15. How would your business change with each option? (In a positive or negative way) (Indicate N/A if not impacted).

Bypass Options	Explain business change as a result of each bypass option:
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

Section 4 – Mitigation Measures

16. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

17. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

18. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

Kilmore Wallan Bypass Land Use and Regional Economy Study
Regional Economy Consultation—Industrial Businesses

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your business.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the business or personal data you provide so as to ensure you cannot be identified. No personal or business details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - Business Details

Name of Interviewee:

1. Business name: 2. Precinct:

3. Description of current business operation:

4. Address: Postcode:

5. Yrs of operation:		6. Yrs in current location:		7. Yrs business operated by you:	

8. Property size:	ha	m^2	acres

Section 2 – Business Operations

9. Do you have customers visiting your property? Please circle: Yes / No

10. If so, approximately how many customers do you have a week? _____

11. Please estimate the proportion of your business customers that originates from:

Local customers (within 20km):	%	Non Local:	%

12. For your respective business operations, where is your main travel destination? I.e. where do you travel to for business needs / where do your products travel to / where do your customers travel from?

Please tick all that apply.				
Within Kilmore District	Within Mitchell Shire	Interstate	Capital City	Detail Place Names:

Section 3 – Regional Economy Impacts

13. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	**Information Session**	**Other VicRoads Contact, please elaborate**

14. Please refer to the map showing each of the five options and locate your business.

For each option, please rate the impact on your business from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

15. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

16. Please provide further information about your ranking in Question 15? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired					
Loss of assets					
Property / land prices					
Land severance					
Business revenue associated with the land					
Sunk investment (land improvements and infrastructure)					
Accessibility to your land for business purposes					
Employment associated with land					
Future land development opportunities					

16a. Additional Comments
I.e. quantify your response above (how many employees will be lost, what % of the business will it affect etc.).

17. How would your business change with each option? (In a positive or negative way) (Indicate N/A if not impacted).

Bypass Options	Explain business change as a result of each bypass option:
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

Section 4 – Mitigation Measures

18. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

19. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your business?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

20. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

Kilmore Wallan Bypass Land Use and Regional Economy Study
Landowner Consultation

Introduction

URS has been engaged to undertake an independent evaluation of the impacts on land use and the regional economy for the five Kilmore Wallan Bypass options. We have made this appointment with you to seek your feedback on how these options may impact on your land.

Your input will be incorporated into the study and will contribute to the options evaluation process along with the results of the technical assessment. Our report will detail constraints, benefits and issues associated with each route option as well as possibilities for modifying these to reduce any adverse impacts. Therefore your input is important to understand both the positive and negative land use and regional economy impacts associated with each option.

Your responses will be collated separately to the personal data you provide so as to ensure you cannot be identified. No personal details will be disclosed in the study report; these are for identifying purposes only to undertake the interview.

Background Context / Proposed Options

The Northern Highway provides a significant link between Melbourne and Echuca. It is an important freight route, with a large proportion of through trucks using the route to transport goods to and from Melbourne. It is also a key link between the rapidly growing areas of Kilmore and Wallan and Melbourne. A bypass of the townships of Kilmore and Wallan is proposed to link the Northern Highway with the Hume Freeway to the north of Kilmore. This will assist with diverting through and heavy vehicle traffic from the section of the Northern Highway that passes through the Kilmore centre and improve the efficiency of the local road network.

Five options for the proposed bypass – Refer to A3 map.

Section 1 - Current Land Use Details

1. Participant name: 2. Precinct:

3. Address: Postcode:

4. Please tick the box which best describes your current land:

Farm	☐
Rural residential (i.e. hobby farm)	☐
Residential	☐
Low density residential	☐
Other (please specify):	☐

5. Land size:	ha	m^2	acres

Section 2 – Future Land Use

6. Assuming no bypass is built, do you anticipate the current land use type of your property to change in the next 10 years?

Yes ☐ No ☐

If yes, please specify what land use change you anticipate will occur:

Section 3 - Land Use Impacts

7. Have you participated in any previous VicRoads events relating to this study? Please tick all that is relevant, if other please elaborate.

Public Display	Information Session	Other VicRoads Contact, please elaborate

8. Please refer to the map showing each of the five options and locate your property.

For each option, please rate the impact on your land (i.e. potential for the option to change land use) from 1 to 5, where 1 is significantly positive and 5 is significantly negative (**Circle one number for each bypass option**).

	Level of impact				
Bypass Options	Significantly positive	Moderately positive	Neutral / none	Moderately negative	Significantly negative
Dry Creek	1	2	3	4	5
O'Gradys Road	1	2	3	4	5
Quinns Road	1	2	3	4	5
Sunday Creek Road	1	2	3	4	5
Western	1	2	3	4	5

9. Please rank the five proposed bypass options in order of preference (where 1 is your most preferred option and 5 is your least preferred option).

Bypass Options	Ranking
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

10. Please provide further information about your ranking in Question 9? For each of the potential impacts listed, provide a symbol for the options which impact you (+ beneficial impact / 0 neutral / - detrimental impact). Please provide answers for all that apply to you.

Potential Impacts	Bypass Options				
	Dry Creek	O'Gradys Rd	Quinns Rd	Sunday Creek Rd	Western
Land acquired					
Loss of assets					
Property / land prices					
Land severance					
Personal income associated with the land					
Sunk investment (land improvements and infrastructure)					
Agricultural Production					
Accessibility to your land					
Future land development opportunities					

10a. Additional Comments
I.e. quantify your response above (what % of the land will it affect, if it affects your income, what % of your income it will affect etc.).

11. How would the land use of your property change with each option?

Bypass Options	Explain land use change as a result of each bypass option:
Dry Creek	
O'Gradys Road	
Quinns Road	
Sunday Creek Road	
Western	

Section 4 – Mitigation Measures

12. If your most preferred bypass option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your land?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

13. If your least preferred option were to be selected, are there any actions that could be taken to reduce any adverse impacts on your land?

Bypass option _____

Yes ☐ No ☐

If yes, please elaborate on what actions could be taken.

14. Additional Comments

End of the Questionnaire

We would like to thank you for your time today. Your response will be incorporated into the Land Use and Regional Economy study which will contribute to a wider overall assessment by VicRoads and will assist in making an informed decision.

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