Greater Shepparton Freight and Land Use Study 2013

FRAMEWORK PLAN

Greater Shepparton Freight and Land Use Study

Framework Plan

Prepared for

City of Greater Shepparton

Prepared by

AECOM Australia Pty Ltd
Level 9, 8 Exhibition Street, Melbourne VIC 3000, Australia
T +61 3 9653 1234 F +61 3 9654 7117 www.aecom.com
ABN 20 093 846 925

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Prepared by Simon Exon/Paul Mantella (AECOM) and Kevin Jones (Greater Shepparton Council)

Reviewed by Denis Leviny (AECOM) and Kevin Jones (Greater Shepparton Council)

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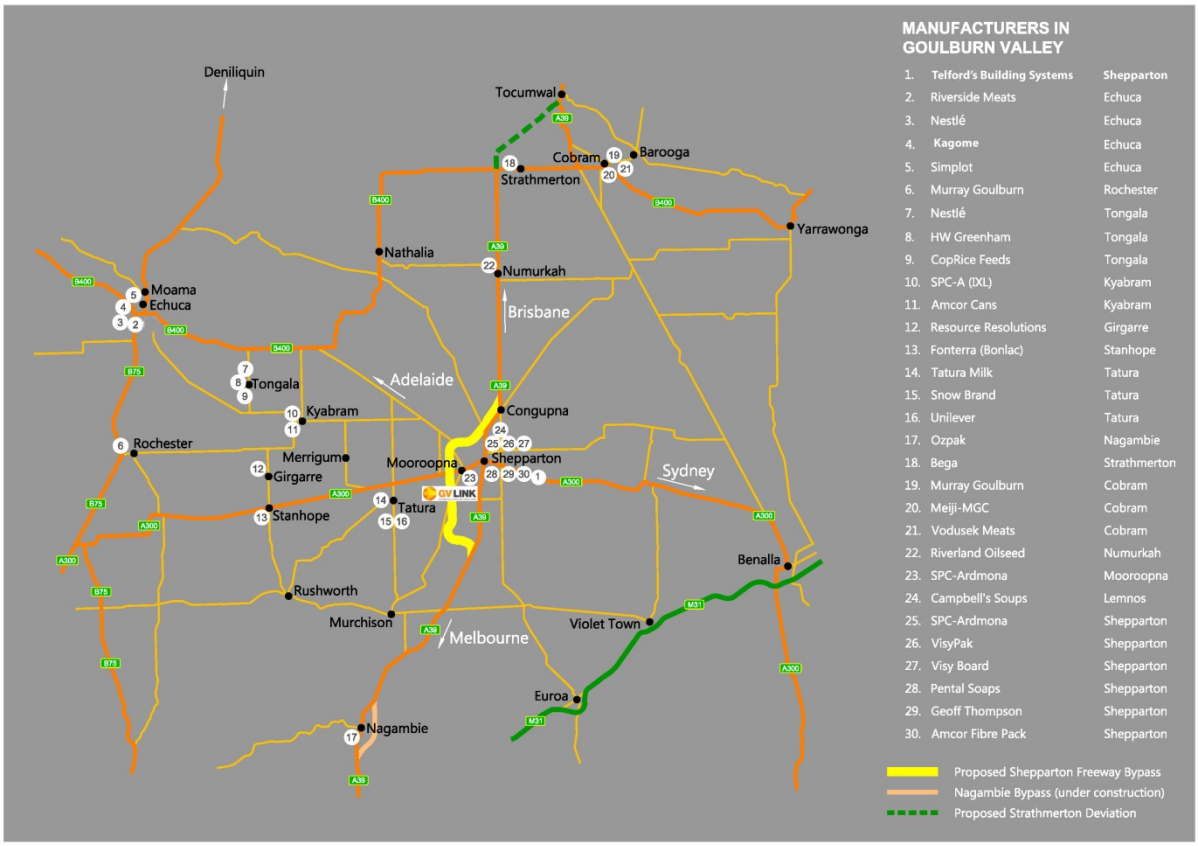
Table of Contents



Executive Summary

The purpose of the Greater Shepparton Freight and Land Use Study is to identify and assess relevant industry, freight and land use trends in the Greater Shepparton municipal area to inform infrastructure network planning decision making and prioritisation.

The City of Shepparton is the fourth largest provincial centre in Victoria, its population is approximately 64,000 and this is projected to grow by 14,000 to 78,000 by 2031. This population growth is underpinned by expected ongoing economic growth in food related markets with the Region having a reputation as an export-oriented 'foodbowl'. Greater Shepparton is also a major regional centre for the wider region, serving approximately 160,000 people.

The freight task in the region continues to grow with evidence suggesting that this growth is exceeding economic and population growth. Efficient and effective transport movement, particularly of freight within, to and from the Greater Shepparton region, is critical to ongoing growth and competitiveness of the city and of the surrounding region. The objectives of this study are to:

- Ensure the City is well placed to accommodate increased freight demand whilst minimising impacts on the community
- Safeguard strategically important freight transport corridors and links to facilitate delivery of future infrastructure projects.

There are a number of issues in Greater Shepparton which are currently directly impacting the potential of the area as an important and growing hub for freight related activity. These have been identified following a document review which has been complemented by extensive stakeholder consultation with government and industry.

The issues are summarised as follows:

- Freight related land uses are currently located in an agglomeration cluster to the east/north east of the Shepparton CBD as this area has historically offered better access to the north and south and other businesses already located in the east for agglomeration benefits. This area has enough industrial land supply to meet anticipated demand for the next 20 years. This area is also currently served by the Shepparton Alternative Route for which its current design is not suitable for the scale and type of vehicular use it attracts.
- The existing location of freight activity combined with the layout of the road network results in a high demand for east-west movement via the CBD. Existing arrangements for making this movement are not satisfactory for freight operators and generators due to congestion and the constrained nature of the road network. The greatest concern for existing east west movements is that large numbers of trucks travelling through central Shepparton also create significant amenity and safety issues for local business and the community.
- A significant increase in heavy vehicle traffic generally travelling through Shepparton is forecast. This will increase congestion and other undesirable impacts on the Shepparton Alternative Route and east west demand through central Shepparton.
- Potential long term responses to these issues include the GV Link (an intermodal freight hub) supported by the proposed Shepparton Bypass which are both located to the west of Shepparton CBD away from existing activity. There is uncertainty around the delivery of the bypass and the uptake of GV Link which discourages industry to relocate despite the issues associated with the existing Shepparton Alternative Route.
- The vast majority of freight is moved on road as there is a lack of feasible rail options for industry.
- New east-west routes will be required to support a new bypass in the event that industry continues to be primarily located in the east and north east.

A number of strategic actions have been identified within this framework plan to address these issues. The actions focus primarily on addressing the north-south and east-west freight movement constraints to improve conditions for trucks and reduce both amenity and safety impacts. This includes land use planning actions to redistribute truck movements away from problem areas and delivery of new road infrastructure that will meet the growing demands of these heavy vehicle movements and provide strong strategic directives for routes and facilities.

The strategic priority actions are:

Roads:

- Determine a road user hierarchy that supports a fully developed GV Link so that investment occurs in concert with and supports council's strategic objectives
- Identify a package of road upgrades and new linkages for a scenario where GV Link is partially/fully developed and where the GV Link is not developed so that alternate strategies can be pursued and that also work toward a long term build out
- Identify routes that are suitable for high productivity vehicles (including the potential trialling of B-triples) so that there is a clear strategy for managing movement by these vehicles
- Deliver truck calming measures on freight impacted local roads once strategic freight route impediments have been removed from the strategic B-Double routes. This will allow amenity benefits to be obtained throughout the Greater Shepparton local road network and reinforce the new freight network connections.

Preliminary assessment of Greater Shepparton's Strategic Freight network has been undertaken during the Hume Region Planning for Freight Pilot (HRPFP). The *Hume Planning for Freight Pilot report*, *Heavy Vehicle network mapping* and Council's *Freight and Land Use Study* have been developed in parallel. The HPFP recognised 18 heavy vehicle route upgrades for Greater Shepparton. They included Old Dookie Rd, Lemnos North/ Central Ave and Welsford St in a package for 'Rapid Appraisal' as priority regional projects. These 3 road upgrades are included as 'Short Term Strategy Responses' in the Framework Plan for this study.

Rail:

- Investigate ways in which rail can support local services as part of their logistics chain and that will enable the potential for rail to be established and appropriate interfacing responses to be identified
- Continue to advocate for the Melbourne Brisbane inland freight route via Shepparton

Land Use:

- Unlock the potential for the development of GV Link and provide incentives that encourage freight generators and logistics industry operators to (re)locate to this site rather than at other sites within Shepparton and in so doing, alleviate congestion to the west of the CBD. Direct future industry growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement, preserving/future proof transport corridors to support an efficient freight network.

1.0 Introduction

1.1 Background

The City of Shepparton is the fourth largest provincial centre in Victoria. According to *'Victoria in Future 2012'*, the existing population of approximately 64,000 is projected to grow by 14,000 to 78,000 by 2031. This population growth is underpinned by expected ongoing economic growth in food related markets with the Region having a reputation as an export-oriented 'foodbowl'. Greater Shepparton is also a major regional centre for the wider region, serving approximately 160,000 people.

Primary production underpins the economy of Greater Shepparton and its surrounding area with the region producing 25% of Victoria's horticultural produce. Much of this produce is value-added via manufacturing and processing of food products within Greater Shepparton. These products are then transported to domestic and international markets with Greater Shepparton being a significant hub in the state and national freight and logistics chain.

1.2 Study Purpose

The purpose of the Greater Shepparton Freight and Land Use Study is to identify and assess relevant industry, freight and land use trends in the Greater Shepparton municipal area to inform infrastructure network planning decision making and prioritisation. This will allow a more detailed investment framework to be identified which meets existing and emerging transport needs in the area over the short, medium and longer term timeframes. The Framework Plan will provide the strategic foundation for prioritising future funding opportunities, including those sought through State and Commonwealth Government and other organisations. It will also provide the basis for further investigation work and the completion of other tasks that will be required in order to ensure that infrastructure can be delivered effectively once funding is secured.

1.3 Study Objectives

Efficient and effective transport movement, particularly of freight within (as well as to and from) Greater Shepparton, is critical to ongoing growth and competitiveness of the city and the surrounding region. The objectives of this study are to:

- Ensure the city is well placed to accommodate increased freight demand whilst minimising impacts on the community
- Safeguard strategically important freight transport corridors and links to facilitate delivery of future infrastructure projects
- To integrate transport and land use so there are direct and efficient routes that connect key industrial land uses, there is an efficient use of land and to ensure the support for ongoing investment into manufacturing and freight related industries.

1.4 Areas of Investigation

This report includes the following:

- A review of relevant strategies reports and data
- The outputs of consultation with key industry and transport stakeholders
- An overview of existing and future land use trends and proposals that potentially have significant freight impacts
- A discussion of anticipated future freight trends, their land use implications and transport network impacts
- A freight and land use framework plan
- A priority list of strategic transport infrastructure projects that respond to the needs and trends identified in this study.

2.0 Brief Overview of Documents and Data Reviewed

2.1 Review Process

Relevant planning documents, freight documents, other reports and data have been reviewed when preparing this study. The review focussed on consideration of the following questions:

a) What are the existing conditions and trends in terms of freight volumes, type and paths?

b) What issues and challenges have been identified to date and are these still relevant?

c) What are the existing land use patterns and how are these changing?

d) Which industries and agricultural sectors are growing, are any receding?

e) What Industrial, freight and logistics related land use activity needs to be considered when network planning for freight tasks?

f) What other existing or proposed development will have potential freight impacts at a strategic level?

The documents assessed as part of the review included:

- The Northern Victoria Regional Transport Strategy 2009
- The Goulburn Valley Freight Logistics Centre Study 2003
- The Food Bowl Inland Rail Alliance Study 2007
- A VicRoads draft report for the Ford Road/Wanganui Road East-West Link 2012
- VicRoads traffic modelling data for the proposed Shepparton Bypass 2011
- VicRoads traffic data from 2011 surveys
- The proposed Shepparton Bypass submission to Infrastructure Australia, DOT, VicRoads
- The Hume Region Submission to Infrastructure Australia - Regional Development Australia
- Documentation produced by Greater Shepparton City Council
    - The Greater Shepparton Planning Scheme
    - Industrial Land Review (June 2011)
    - Housing Strategy 2011
    - Shepparton CBD Strategy 2008
    - Greater Shepparton 2030 Strategy Plan
    - Waste Management Strategy 2005 - 2015
    - Other Growth Corridor Plans and Land Zoning Maps

2.2 Key Themes

The following key themes were identified in the document review:

- Safety on the transport network needs to be improved
- Through traffic should be removed from built-up areas
- Community amenity should be preserved and enhanced
- Transport infrastructure should be of a standard appropriate to meet industry needs
- The regional heavy vehicle road network should be improved to facilitate the movement of goods
- Overall network access needs to be improved within and into the region particularly on The Shepparton Alternative Route which is currently not fit for purpose
- Key roads need to be maintained and upgraded to support an increasing freight task, an increase in heavy vehicle size and increased traffic movement

- Road by-passes should be provided around major towns
- The amount of waste going to landfill at Cosgrove needs to be reduced
- An intermodal facility known as GV Link is planned and has been designated to meet future freight needs.
- Key to the success of this facility is the provision of a standard gauge line linking Melbourne and Sydney and providing a new inland rail corridor for freight.
- If a new intermodal facility is built, then there will be significant freight movement and land use impacts in the short, medium and longer term. These will need to be understood and mitigated against going forward
- Through traffic volumes, origins and destinations generally need to be better understood; particularly the growing interstate freight task and the important role that Shepparton plays as part of the national freight network connecting Victoria, South Australia, NSW and Queensland markets both north and south.

Figure 1: Proposed GV Link

2.3 Document Review Key Outcomes

The key outcomes from the review are as follows:

- Capital investment of approximately $800-$1,070 million would be required for an inland rail corridor linking Melbourne and Brisbane with an option of using the Melbourne – Tocumwal broad gauge line via Shepparton. A regional freight demand of 0.470 million tonnes would be required to justify this alignment but it would achieve a negligible time saving (of less than one hour) compared to a route via Albury. Existing studies have concluded that a Shepparton route was not viable as the principal inland rail corridor.
- The amount of freight traffic using the Goulburn Valley Highway and Shepparton Alternate Route is significant with a growing heavy vehicle component.
- There is a need for a secondary east-west arterial road that connects areas to the east and west of the Goulburn Valley Highway including a second crossing of the Goulburn River. For example, the proposed Shepparton Bypass, Mooroopna West Growth Corridor and the GV Link site to the west and the need to connect to existing industrial precincts and community facilities in the east.
- A secondary link would reduce dependence on the Midland Highway where access is sometimes restricted as a result of flooding and other incidents.
- The benefits of the proposed Shepparton Bypass are primarily obtained via reduced travel times for strategic through trips and improved road safety. Of greatest concern on the Shepparton Bypass, the growing conflict between heavy vehicles and local passenger traffic is recognised as a major safety issue. Furthermore - the local community would benefit from the removal of strategic traffic movements via the CBD.
- The forecast freight growth on the Shepparton Alternative Route is summarised in Table 1. This growth is based on the proposed Shepparton Bypass not being delivered. In these forecasts heavy vehicles are defined as classes 3 to 12.

Table 1 Forecast growth based on no proposed Shepparton Bypass for Shepparton Alternative Route

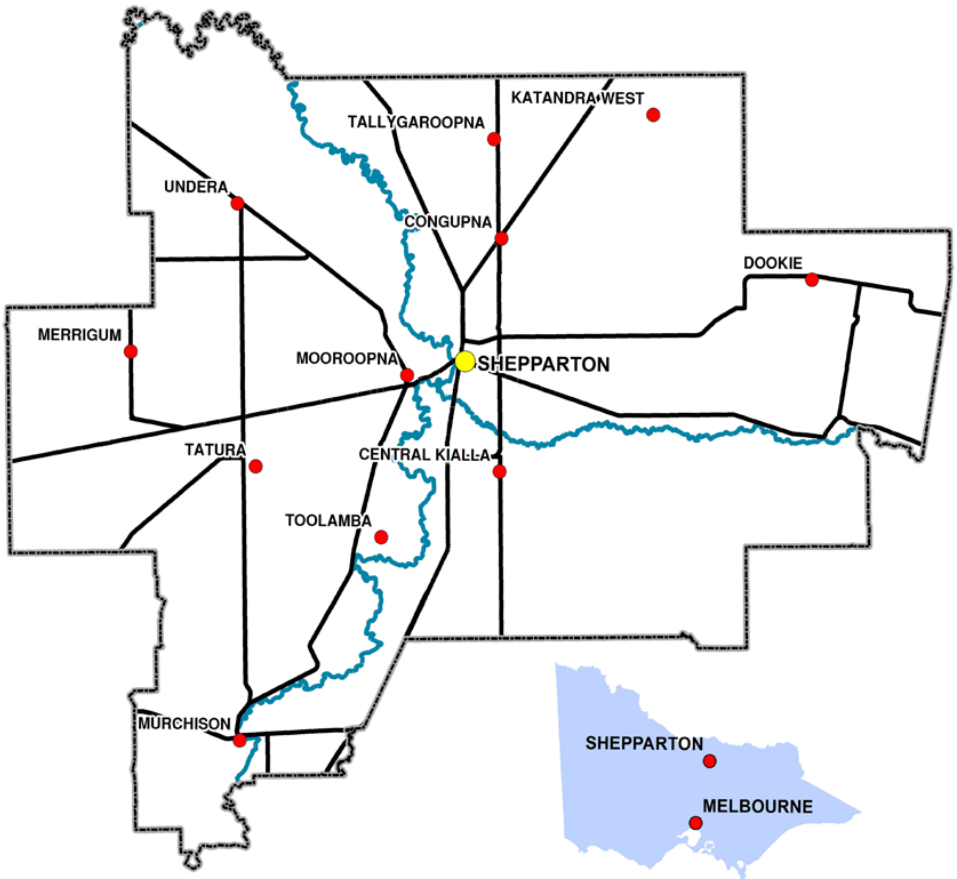
Road Section	2011	2016	2021	2031	2041
Shepparton Alternative Route (All Vehicles two-way 24 hour)					
Between Archer Rd and Central Kialla Rd	2,800	3,000	3,400	3,300	3,600
Between Poplar Ave and Midland Hwy	6,300	6,600	6,900	6,100	6,400
Between New Dookie Rd and Ford Rd	5,100	5,300	5,300	5,300	5,600
Between Knights Rd and Goulburn Valley Hwy	3,200	3,500	3,900	3,900	4,300
Shepparton Alternative Route (Heavy Vehicles two-way 24 hour)					
Between Archer Rd and Central Kialla Rd	1,400	1,500	1,600	1,800	2,000
Between Poplar Ave and Midland Hwy	1,700	1,800	1,900	1,900	2,100
Between New Dookie Rd and Ford Rd	1,600	1,700	1,600	1,800	1,900
Between Knights Rd and Goulburn Valley Hwy	1,300	1,400	1,400	1,600	1,800

3.0 Existing Conditions

3.1 Study Area

The study area (as shown in Figure 2) includes Shepparton and surrounds, and takes into consideration the regional context of Greater Shepparton located within the State of Victoria, and in relation to inter-state routes and travel.

Figure 2: Greater Shepparton Municipal Area and study area



The focus for needs, issues and potential improvements and upgrades with respect to freight and land-use is centred on Shepparton and its immediate surrounding area (including Mooroopna). The plan below shows a land use zoning map of the study area.

The zoning plan shows the distribution of land uses within Shepparton. Key land use elements include:

The central business area in central Shepparton and the other large activity areas located on major gateways into Shepparton (purple shaded areas).

The concentration of industrial uses in the east of Shepparton, and the cluster of smaller industrial areas located along key gateways into Shepparton (brown shaded areas)

The existing large residential area of Shepparton and smaller residential area of Mooroopna are divided by the Goulburn River floodplains and associated tributaries and swamps (pink and blue shaded areas).

The proposed Shepparton Bypass and GV Link to the west of Shepparton / Mooroopna (red dotted line and green shaded area).

The rail corridor via GV Link, central Mooroopna, central Shepparton and the eastern industrial precinct (linear yellow shaded area).

General observations about the land use and transport interfaces are as follows:

- 53% of the City of Greater Shepparton's population is located in the main urban centres of Shepparton and Mooroopna, with the remaining 47% in the smaller townships of Tatura, Murchison, Dookie, Merrigum, Congupna, Toolamba, Undera, Katandra and Tallygaroopna.
- The bulk of Shepparton's industrial land is located to the east of the city centre. Despite this the proposed Shepparton Bypass will be located to the west.
- The Goulburn River has a major impact on east-west connectivity with all traffic being channelled through a single major route (the Peter Ross Edwards Causeway) traversing the river course and flood plain.

3.2 Current Freight Task

The Greater Shepparton economy continues to thrive on the back of a number of service, health, food, manufacturing and tourism sectors. Activity in these sectors is placing increased pressure on existing road networks which are trying to accommodate population growth and additional demand for movement.

Freight operations within the city are characterised as follows:

- **Trans-national or international** - by sea or air modes (e.g. goods heading to ports and airports)
- **Inter capital** - Between capital cities by road, rail, sea or air
- **Up country** - From a capital city to a rural region, down country from a rural region to a capital city by road, rail, air of coastal shipping
- **Inter-regional** - between origin and destination modes in non-capital city regions, primarily by road but also rail, air coastal shipping or pipeline
- **Intra-regional** - Between origin and destination modes within a region outside of a capital city; primarily by road but also rail, air coastal shipping or pipeline
- **Intra-capital** - Between origin and destination modes within a capital city, primarily by road
- **Intra city** - Local movements within Shepparton by road.

3.3 Land Uses

Figure 6 shows a land use zoning map of the study area. The zoning plan shows the distribution of land uses within Shepparton. Key land use elements include:

- The central business area in central Shepparton and the other large activity areas located on major gateways into Shepparton (purple shaded areas)
- The concentration of industrial uses in the east of Shepparton, and the cluster of smaller industrial areas located along key gateways into Shepparton (brown and dark green shaded areas)
- The existing large residential area of Shepparton and smaller residential area of Mooroopna, which are divided by the Goulburn River floodplains and associated tributaries and swamps (pink and blue shaded areas)
- The proposed Shepparton Bypass and GV Link to the west of Shepparton / Mooroopna (red dotted line and light green shaded area)
- The rail corridor via GV Link, central Mooroopna, central Shepparton and the eastern industrial precinct (linear yellow shaded area)

3.4 Industrial Land Uses

Existing and future growth in industrial land use across Greater Shepparton will have implications for future transport needs and prioritisation of investments. The Greater Shepparton Industrial Land Review (2011) identifies eight key industrial precincts across Greater Shepparton. These precincts have approximately 661 hectares of existing zoned industrial land. The majority of these precincts have a sufficient supply of existing zoned industrial land to meet predicted demand levels for at least the next 15 years.

The *Industrial Land Review, City of Greater Shepparton, 2011* also proposes the relocation of the aerodrome to an area west of GV Link, which is likely to result in the relocation of industry/freight activities associated with the

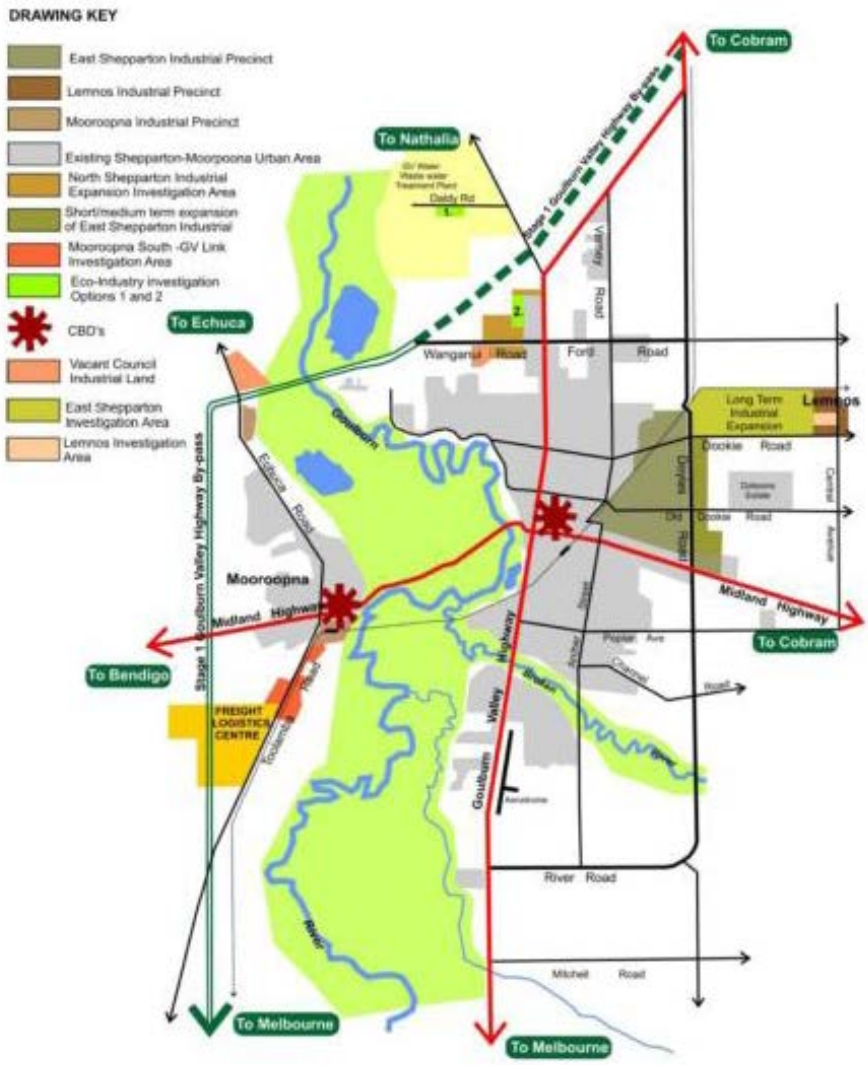
aerodrome, additional demand for east-west movement and the transition of land from industry to an alternative use at what is the current aerodrome site which may or may not be industry/freight related.

The overall consumption rate within the municipality is nine hectares per annum of which six hectares occurs in Shepparton East. The rate of consumption varies between each of the precincts and ranges from 0.45 hectares per annum in the Lemnos industrial precinct to six hectares per annum in the Shepparton East industrial precinct. Development rates in other precincts are relatively modest.

Based upon this existing level of annual demand alongside the identified medium and longer term industrial expansion areas identified in the Land Review, the industrial land supply in all but two precincts will be sufficient for at least the next 25 years. This will be a factor for consideration when it comes to timeframes for developing the transport network.

Other related land uses include waste management. Waste transfer stations are located in the north-west of Shepparton on Wanganui Road and outside of Shepparton in Ardmona (west via Midland Highway) and Murchison (south-west via Toolamba Road). The only licensed municipal landfill is at Cosgrove (east via Midland Highway).

Figure 4: Shepparton Industrial Framework Plan



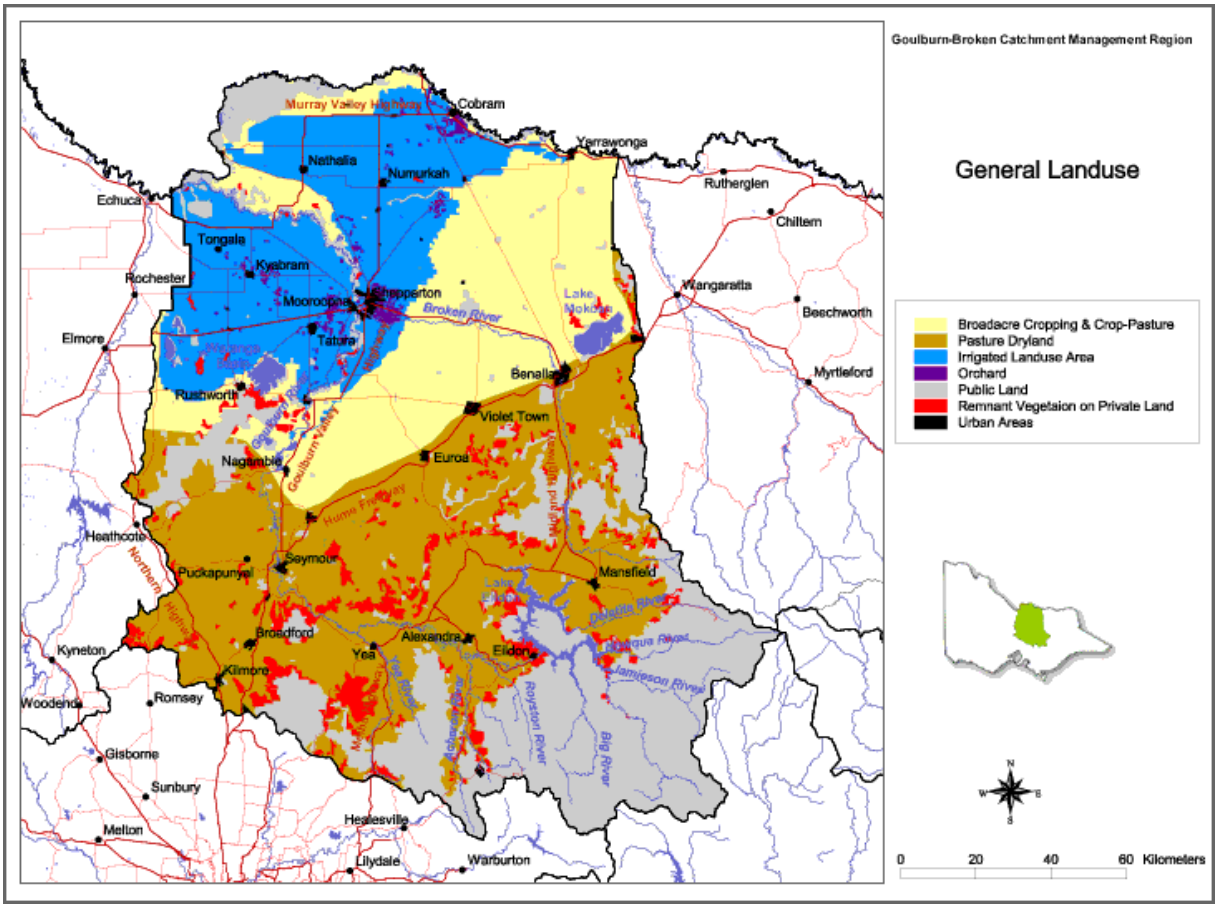
Source: Industrial Land Review, City of Greater Shepparton, 2011

3.5 Agricultural Land Uses

Figure 5 shows the general land use categories for the Goulburn Broken Catchment Management Authority area. Shepparton is centrally located within a highly productive agricultural region. The dominant agricultural land use surrounding Shepparton and to its west and north is “irrigated agriculture” including orchards and dairying that produce , fruit, milk and milk products. The dominant agricultural land use to the south and east is “dry land agriculture”, which includes grazing, broad acre cropping that produce sheep, cereals, oil seeds and vegetables. Both of these areas also include production of farm and plantation forestry

Agricultural production has a strong historical connection with Shepparton. Shepparton is a major regional hub for the collection, production, value adding and packaging of raw materials for export from the region to national and international markets. As such, local, regional and interstate freight routes play a significant role in the collection, manufacturing and distribution of local products. A strong and flexible road and rail network is of great significance to the continued economic prosperity of the region.

Figure 5: Agricultural Land Use in Goulburn Broken Catchment Management Authority



Source: http://vro.dpi.vic.gov.au/dpi/vro/map_documents.nsf/pages/gb_landuse

3.6 Business Land Uses

The majority of commercial and retail land uses are centrally located within the Shepparton central business area. There are several clusters of other significant commercial and retail centres that are located along major arterials leading into Shepparton. These are located near the following intersections:

- Midland Highway and Echuca-Mooroopna Road, Mooroopna
- Goulburn Valley Highway and Kialla Lakes Drive, Shepparton
- Midland Highway and Doyles Road, Shepparton
- Goulburn Valley Road and Wanganui-Ford Road, Shepparton

Light commercial vehicle access and general freight vehicle access are important to Shepparton's efficient movement of freight and the vital part this plays in supporting viable and sustainable economic activity. As the region continues to grow, it will be important to maintain and support local links for light commercial vehicles throughout the region, whilst addressing strategic freight network requirements for larger freight vehicles.

3.7 Residential and Community Land Uses

The majority of residential and community land uses are located in Shepparton, with a smaller but growing community in Mooroopna. Residential land uses are generally located between Doyles Road, River Road and the proposed Shepparton Bypass. These areas have sufficient land for residential urban growth for the next 15-25 years, but in the long-term growth will need to extend beyond these boundaries.

3.8 Potential Land Use Conflicts

The location of residential and industrial land uses and the associated freight movements / routes which connect industries have the potential to create land use and transport conflicts between users. Shepparton is a growing community with limited existing options for east-west and north-south movement. A flexible and robust network is required that not only considers the needs of industry, but also the community. As noted, when surveyed, most stakeholders identified the Shepparton Alternative Route as representing a significant and growing safety risk to the community due to the conflict between increasingly larger heavy vehicles and local private vehicle movements.

As outlined in this report, a more thorough strategic reassessment of the options is encouraged. This should focus on how Shepparton can integrate historical land uses with the visions for the future allocation / management of land uses and transport routes. This document discusses opportunities for further consideration.

3.9 Transport Network

3.9.1 Overview

Shepparton City Centre lies at the cross-roads of the east-west Midland Highway (connecting Bendigo and Benalla), and the north-south Goulburn Valley Highway (connecting to Melbourne/Seymour in the south and central NSW in the north). As such, the road network reinforces the centric role that the city provides as can be seen by the road patterns that can be seen in for the wider regional area. The existing network also underscores the role that Shepparton plays in performing a (predominantly eastern seaboard) national freight task.

The radial nature of the road network has historically focussed all cross-town freight movements through the central commercial area.

Greater Shepparton are serviced by a rail network linking to Melbourne and Tocumwal to the north. In addition a branch lines link Toolamba to Echuca and Shepparton to Dookie.

Major industry around Shepparton has focussed its activities to the east of the town which is served by the Shepparton Alternative Route.

The Goulburn River is located immediately west of Shepparton and separates Shepparton from Mooroopna. The river crossing on the east-west Midland Highway route is in heavy demand as it connects those areas where people live and work in the local area as well as catering for regional travel demands. This river has is prone to flooding and bushfires which can result in the intermittent closure of Midland Highway.

A description of key routes in Greater Shepparton is provided below (Refer also to Figure 6).

3.9.2 Midland Highway

The Midland Highway is an east-west route that provides a connection to Melbourne via Bendigo in the west and Benalla to the east. It provides the only east-west connection within the immediate vicinity of Shepparton and is heavily used by trucks including B-Double and Higher Mass Limit Trucks. A description of the route from west to east is provided in Table 2.

Table 2 Midland Highway Road Characteristics

Section	Lanes per Direction/Speed Limit	Attributes	Volumes[1] veh/day (Average Weekday Traffic, AWT)
West of Mooroopna	1 plus shoulder (100 & 90 km/hr)	Single carriageway	7,000
Mooroopna	2 plus cycle lane (80, 70 & 50 km/hr)	Dual carriageway, wide median with parking and land-uses	11,400
Causeway	2 plus shoulder (80 km/hr)	Sealed shoulders (potential for flooding)	26,400
Shepparton	2 plus shoulder or Cycle lane (60 & 70 km/hr)	On-street parking, some medians	15,200
East of Shepparton	1 plus shoulder (80, 90 & 100 km/hr)	Single carriageway (wide road reserve)	7,000

There are several sets of traffic signals within Shepparton (between Goulburn Valley Highway and Shepparton Alternative Route), which limit the capacity of this more highly trafficked section of the Midland Highway which travels directly through central Shepparton and the Shepparton CBD. Another factor impacting congestion - is the decrease in speed limit approaching Shepparton from 100 km/hr down to 60 km/hr in the retail and light industrial precincts.

The highest traffic demand occurs between the major population centres of Shepparton and Mooroopna. The traffic signals at either end of these two precincts are likely to be under the most significant pressure, as no unrestricted alternative routes exist (it should be noted that there is an alternative route via Watt Road which has a three tonne weight limit).

Although the Shepparton Alternative Route exists to enable trucks and freight traffic to avoid central Shepparton for north-south movements, no such route exists for east-west movements. Demand for east-west movement is significant for both local and longer distance freight movements which require access to industrial precincts in east Shepparton and Mooroopna, Tatura and Ardmona, Benalla and Bendigo to the west.

When the road is closed due to floods or bushfires, access between the west and the east is severely impacted. This affects community access from Mooroopna to employment, retail, commercial and education activities in Shepparton. Such closures also impacts emergency vehicle movements and it also affects the movement of freight from the eastern industrial precincts to the rail freight terminal in Mooroopna and the delivery of produce from the agricultural region west of Shepparton to the manufacturing and packaging centres to the inner-east of Shepparton. A second alternative east-west route is seen as an important requirement to reduce the impact on the CBD amenity, improve community safety, improve freight generator and freight service provider efficiency. The second river crossing would generally support the movement of goods and people across the Goulburn River whilst reducing the impact of unplanned road closures.

[1] 2011 Volume estimates sourced from Table 13, AECOM 2012 “Development of the Shepparton Bypass Strategic Transport Model”

3.9.3 Goulburn Valley Highway

Goulburn Valley Highway is a north-south route providing connections between Central NSW and Seymour/Melbourne. It travels directly through the major retail precincts of central Shepparton.

The speed limit decreases approaching Shepparton, from 100 km/hr and down as low as 50 km/hr in the retail precincts.

No B-Doubles or Over Mass Vehicles are permitted on this route between Broken River and Pine Road (central Shepparton) [2]. These larger vehicles should therefore be using the Shepparton Alternate Route.

Local planning policies seek to redistribute heavy traffic away from central Shepparton and Mooroopna and to encourage a mixture of commercial, tourism and retail uses with an improved amenity commensurate with a regional lifestyle, tourism and café culture.

A description of the key attributes of the Goulburn Valley Highway route (from north to south) is provided in Table 3.

Table 3 Goulburn Valley Highway Road Characteristics

Section	Lanes per Direction (Speed Limit)	Attributes	Volumes veh/day (AWT)
North of Shepparton Alternative Route	1 plus shoulders (100 km/hr)	Rural highway, single carriageway, includes sections of overtaking lanes	5,200
Shepparton North	1 plus shoulders (90 km/hr)	Rural highway, single carriageway	7,100-10,800
Shepparton	2 lanes, cycle lane, flaring at intersections (80, 60 & 50 km/hr)	Divided, some service roads, some on-street parking No B-Doubles or over mass vehicles permitted	10,700-17,000
Broken River Crossing	2 lanes, cycle lane (70 km/hr)	Divided No B-Doubles or over mass vehicles permitted	15,200#
Kialla	2 lanes, cycle lane per direction (80 & 70 km/hr)	Sections of median, sections of service roads	9,200##
South of Shepparton	1 plus shoulder (100 & 80 km/hr)	Rural highway, single carriageway	6,500-7,900

Council count date 30/01/09

Council count date 14/09/2011

Midland Highway – Shepparton Alternative Route intersection.

[2] http://maps.vicroads.vic.gov.au/website/Heavy_Vehicles/viewer.htm

3.9.4 Shepparton Alternative Route

The Shepparton Alternative Route, known as the C391 is located on the eastern side of Shepparton and incorporates River Road, Doyles Road and Grahamvale Road.

The characteristics of this route are described below (from north to south).

Table 4 Shepparton Alternative Route Road Characteristics

Section	Lanes per Direction (Speed Limit)	Attributes	Volumes veh/day (AWT)
Grahamvale Road Route Distance: 6.8 km	1 lane per direction (80 & 100 km/hr)	North-south route, connecting to Goulburn Valley Highway, 9.3km north of central Shepparton. 600 m north of Dookie Road, Grahamvale Road crosses a level crossing (see note below).	3,200-5,100
Doyles Road Route Distance: 8.1 km	1 lane per direction (90 & 80 km/hr)	North-south route, continuation of Doyles Road. Parallel to GVH, approx. 3.0 km east. Connects River Road with Grahamvale Road (at Dookie-Shepparton Road). Crosses Midland Highway (Benalla Road A300) roundabout. New Dookie Road – roundabout.	7,810# 8,779##
River Road Route Distance: 4.0 km	1 lane per direction (90 km/hr)	East-west route, 6.8 km south of central Shepparton, connects GVH with Doyles Road.	3,490###

Council count date 15/08/12

Council count date 05/12/12

Council count date 6/11

Shepparton Alternative Route is characterised as mainly rural, with adjacent industrial and residential land-uses through some segments. There are a limited number of developments along this route; however each has a separate direct access point. There has been some minimal widening of the route as freight activity has increased to enable turn lanes and local flaring to improve safety and capacity at access points.

The roundabouts located at Midland Highway (Benalla Road) and New Dookie Road dictate the capacity of the route, with single lane approaches and circulating lanes through each roundabout. At the northern end, vehicles exiting the Shepparton Alternative Route must give-way to Goulburn Valley Highway traffic. At the southern end, southbound vehicles are provided with an additional lane that merges with Goulburn Valley Highway traffic, while the westbound or northbound traffic have to give-way to Goulburn Valley Highway traffic.

The railway level crossing on Grahamvale Road is a two-track crossing; it has advanced warning signs and flashing lights whilst no boom gates are provided.

Planned growth of residential, industrial and community infrastructure in this area will see it transform from a rural to an urban setting. This will result in increased passenger and truck traffic along and across this route. As a result, the importance of this route will transform from primarily a freight route for inter-region freight traffic to also act as a primary route that connects industrial precincts and the local community in the east of Shepparton. This is likely to result in increased traffic conflicts, increased community safety risk and therefore the road should be upgraded to accommodate its expanding purpose and role.

3.9.5 Road Crashes

The safety of the major routes has been reviewed based upon the historical road crashes. VicRoads' Crashstats was used to review the occurrence of crashes in the latest five year crash period (01 January 2007 to 31 December 2011). A summary of the crashes are shown in the table below.

Table 5 Route Crash Summary Statistics

Route and length (km)	Crashes		Crash Rate per km per year		Crashes per million VKT
	All Vehicles	Trucks	All	Trucks	
Shepparton Alternative Route - 19km	**34 total:**	**12 total (35%):**	0.36	0.13	0.304 (estimated AWT is 4,350 veh/day)
	0 fatal	0 fatal			
	13 serious injury	6 serious injury			
	21 other injury	6 other injury			
Goulburn Valley Highway[3] – 16.1km	**98 total:**	**5 total (5%):**	1.2	0.06	0.588 (estimated AWT is 7,670 veh/day)
	1 fatal	0 fatal			
	34 serious injury	1 serious injury			
	63 other injury	4 other injury			
Midland Highway - 17.7km	**110 total:**	**5 total (5%):**	2.4	0.06	0.340 (estimated AWT 13,525 veh/day)
	2 fatal	0 fatal			
	32 serious injury	1 serious injury			
	76 other injury	4 other injury			

Source: http://www.vicroads.vic.gov.au/Home/SafetyAndRules/AboutRoadSafety/StatisticsAndResearch/CrashStats.htm

Table 5 indicates that a significant number of crashes have involved trucks on the Shepparton Alternate Route. This may be due to the high percentage of trucks using this route, the existing road configuration and conflict that occurs primarily from local vehicles turning onto the Shepparton Alternative Route whilst heavy vehicle traffic passes at high speed.

Crashes are likely to be exacerbated as increased urban development in Mooroopna, north and south Shepparton result in increased traffic along Wanganui-Ford Road, River Road, Midland Highway, Goulburn Valley Highway, and the Shepparton Alternative Route. Stakeholder consultation with both major freight generators and major logistic service providers, all of whom are regular users of the Shepparton Alternative Route – has indicated that a consensus forecast exists that a higher level of incidents will occur as a result of increased through traffic for interstate carriers, increased numbers of road users (all vehicle types) not familiar with the changing road conditions and increased private vehicle movements through general population growth.

3.9.6 Welsford St – CBD Bypass Impact Upon Future Traffic Flows

As part of this study, an assessment has also been made of the traffic flows for Welsford St which is currently being used as an bypass entering eastward through the CBD which flows from the Peter Ross-Edwards Causeway. Modelling to assess the impact upon Welsford St with and without the proposed bypass (Table 6) showed that traffic would grow steadily in line with projected population and employment growth highlighting that its current design will not be fit for purpose. This modelling likewise illustrated that a significant reduction in traffic upon Welsford St would occur once the proposed bypass was completed.

Importantly – this further validates the necessity to upgrade Welsford and Knight St in the immediate short-term to allow for traffic growth until such time as the proposed bypass becomes available – refer to

Table 6 and Table 7 for Welsford St Traffic Projections.

[3] Extent of Shepparton Alternative Route

Table 6 Modelled Traffic on Welsford Street (North of Fryers Street) – One Way

ONE WAY Base (Without Bypass)		All Traffic			Heavy Vehicles		
Year	Direction	AM	PM	Daily	AM	PM	Daily
2011	South Bound	773	1,116	5,785	80	36	572
2011	North Bound	1,140	951	5,970	29	92	631
2016	South Bound	801	1,147	5,938	83	34	590
2016	North Bound	1,078	967	6,020	67	91	682
2021	South Bound	863	1,174	5,843	129	37	758
2021	North Bound	1,115	970	5,892	91	110	815
2031	South Bound	909	1,198	6,224	143	48	930
2031	North Bound	1,089	988	6,384	84	76	938
2041	South Bound	875	1,179	6,160	145	59	948
2041	North Bound	1,151	1,041	6,580	74	87	925
ONE WAY With Bypass – Option 2		**All Traffic**			**Heavy Vehicles**		
Year	Direction	AM	PM	Daily	AM	PM	Daily
2016	South Bound	544	953	4,260	52	47	390
2016	North Bound	875	675	4,345	51	52	395
2021	South Bound	582	981	4,528	88	72	647
2021	North Bound	894	699	4,617	83	86	671
2031	South Bound	597	999	4,692	94	66	689
2031	North Bound	906	727	4,800	87	90	715
2041	South Bound	615	1,013	4,843	102	62	742
2041	North Bound	915	800	5,007	88	101	775

Note: AM peak: 7-9AM PM Peak: 4-6PM

Option 2 bypass assumes a full freeway standard bypass with two lanes each direction as proposed by VicRoads discussion paper, June 2012.

Table 7 Modelled Traffic on Welsford Street (North of Fryers Street) – Two Way

TWO WAY Base (Without Bypass)		All Traffic			Heavy Vehicles		
Year	Direction	AM	PM	Daily	AM	PM	Daily
2011	Two way	1,913	2,066	11,755	109	128	1,203
2016	Two way	1,879	2,114	11,958	151	126	1,272
2021	Two way	1,978	2,145	11,735	219	146	1,573
2031	Two way	1,998	2,186	12,608	227	124	1,868
2041	Two way	2,026	2,220	12,740	219	146	1,874

TWO WAY With Bypass – Option 2		All Traffic			Heavy Vehicles		
Year	Direction	AM	PM	Daily	AM	PM	Daily
2016	Two way	1,419	1,628	8,606	103	99	785
2021	Two way	1,476	1,680	9,144	171	158	1,318
2031	Two way	1,503	1,726	9,492	182	157	1,405
2041	Two way	1,530	1,813	9,850	190	163	1,517

Note: AM peak: 7-9AM PM Peak: 4-6PM

Option 2 bypass assumes a full freeway standard bypass with two lanes each direction as proposed by VicRoads discussion paper, June 2012.

3.9.7 Rail Network

Until recently, the region was serviced by the Patrick intermodal rail terminal at Mooroopna. The main role of the terminal was related to the SPC Ardmona cannery export task. However with the rationalisation of the cannery industry, this task disappeared and the terminal struggled to maintain viability. Trains servicing the Mooroopna facility also service only the Tocumwal intermodal terminal. In response to a general decline in rail freight task, the frequency of train service has declined from two trains per day to only three trains per week during 2012.

During January 2013, the Mooroopna container terminal was closed with the rail service now only stopping at the Tocumwal siding which is a further 90kms. This closure was expected to add further heavy vehicle road movements within and around Greater Shepparton as this freight task is converted from rail to road. The Mooroopna terminal was reopened by Patrick in July 2013 to take 40 foot containers of cottonseed originating from northern NSW and containerised by Intercontinental Container Services (ICS) at a Shepparton warehouse. Council's submission (to the Gains Logistics Task Force report has sought support for reopening the Dookie line in addition to the recent announcement to reopen the Toolamba – Echuca line.
This would support the strong seasonal demand placed on the freight network during harvest season and the bulk movement of crops such as rice and other grains.

There are, however, two issues that have the potential to reverse this situation:

1. **Melbourne-Brisbane Inland Rail Freight Route:** Significant investment would be required to provide a direct rail link between Melbourne and Brisbane without the need to go through Sydney. As a result, transit times would be significantly reduced and rail freight productivity improved. The preferred alignment has the railway line traversing west of Shepparton generally following the proposed Goulburn Valley Highway - Shepparton Freeway Bypass. Essentially, the benefits for Greater Shepparton will include access to more regular train services and a new rail connection towards the north which could connect Shepparton more effectively to Sydney, Brisbane, Adelaide and Perth thus opening up new opportunities for attracting industry to the region.
2. **GV Link:** This is an identified industrial and logistics site to the south of Mooroopna that has the potential to be serviced by both road and rail. The advantages of this facility are that it provides the opportunity to concentrate industry on the western side of the city closer to the transport resources and the ultimate concentration of industry will make the construction and operation of a new rail intermodal terminal more attractive than the current container terminal at Mooroopna.

Grain trains from southern NSW pass through the centre of Shepparton. Whilst Greater Shepparton does not directly benefit from the operation of these trains, the revenue raised from farmers from the sale of their crops is largely reinvested into the local economy. The operation of these long heavy trains through the heart of the city creates some issues related to traffic delays and environmental impacts to residents along the rail line. This traffic is both seasonal and cyclical in nature and the volumes vary markedly over time.

The continuation of rail freight could also be seen as important to offsetting the fixed costs of the railway line and as such could be considered important to arguments for the retention of the passenger train services. Rail freight within the Greater Shepparton region must also be recognised within the context that as rail freight's contribution to the regional freight task declines, the rate of increase in road heavy vehicle movements must occur at a faster rate than has been forecast.

4.0 Future Trends

This section discusses the future trends emerging for the region. It discusses potential development, forecasts and trends (as proposed and/or evaluated in previous studies) and the impacts these will have in relation to freight and land use in the study area.

The future freight trends are:

- Changes in volume of movements – increased east-west and north-south movements
- Changes in types of freight movement - changing from smaller vehicles to higher productivity vehicles
- Changes in impacts - GV Link is planned to be introduced beyond 2021, subject to demand - which will have a significant impact on the heavy vehicle usage patterns in the area.

4.1 Demographics

Projections of population trends for Shepparton as discussed in Section 1.1 and Section 3.1 are from data taken from the Victoria in the Future (2012) report, which indicates that there is expected to be continual growth in the population of greater Shepparton across the next 20 years. This growth will vary between 0.9% and 1.2%pa across the entire time period. It is expected that as the population rises, so will the gross regional product (GRP) of the region. This in turn will lead to an increase in the number of residents employed and employment commuting.

The size of Melbourne's freight task is increasing rapidly and has been growing at a faster rate than economic and population growth. The BITRE estimates that the freight task in Melbourne has grown by an average of nearly 5 per cent a year over the last 20 years and will continue to grow by an average of 3 per cent a year until 2020. If this growth occurs, Melbourne's road freight task will grow from around 11 billion tonne kilometres today to around 17 billion tonne kilometres by 2020 – an increase of more than 50 per cent. This growth trend where the freight task grows at a greater rate than population and economic growth is also expected to occur in Greater Shepparton.

Greater Shepparton generates 25% ($3.13 billion) of Gross Regional Product (GRP). It also exports $2,429M representing 30% of exports from the Hume Region.

Within Greater Shepparton, as industry strives to achieve greater efficiencies and productivity, there will be a consolidation of agricultural producers into larger operations and there will also be an increase in the size and weight carrying capacity of heavy vehicles. As Greater Shepparton strives to exploit its natural competitive advantage due to its sound 'foodbowl' credentials and good access to regional, national and international markets Greater Shepparton's freight task and economic activity would also support the expectation of a faster growth rate than the current rate of population growth.

Beyond Greater Shepparton, it is also important to note that the growth of the freight task will also occur due to the growth in eastern seaboard customer markets – particularly as Greater Shepparton is both used as an origin supply point as well as serving as an important interstate conduit to and from regional Victoria, NSW, QLD and SA.

4.2 Land Use

The future land uses have been plotted in figure 6 and figure 7.
The existing industrial zoned land in the Shepparton East area is predicted to be a key area for future freight growth. The area is predicted to continue to experience the strongest demand for industrial zoned land across the municipality. This continued demand is most likely a result of the presence of existing operators and infrastructure which has previously located and developed in this area and the fact that the area contains significant supplies of existing zoned industrial land. Another key factor in this precinct's projected growth is its better access to the Hume Highway (east), to NSW/QLD going north and Melbourne in a southerly direction without having to traverse Shepparton's CBD. Another key industrial area in Shepparton East is the Lemnos industrial precinct. The City of Greater Shepparton Industrial Land Review (2011) recommends that a number of medium and long term industrial expansion areas should be investigated in the Shepparton East area, east of the Shepparton Alternate Route.

The Housing Strategy recommends that a structure plan should be prepared for the corridor of land bounded by Benalla, Doyles and Dookie Roads and Central Avenue in order to guarantee that no future land use conflicts occur within this area (Investigation No.4). The Land Review also makes similar recommendations.

However, both studies state that there is no immediate need to rezone land within this Investigation area as there are sufficient residential and industrial zoned lands in this area.

The GV Link has already been rezoned for freight related special use zone and it is viewed as an important opportunity to consolidate freight handling, freight modal interchange and distribution tasks for the region. Land has been identified near the GV Link for further expansion. The relocation of industrial land uses to the west would greatly reduce possible future land use conflicts between industrial and more sensitive land uses in the Shepparton East area.

There are a number of key residential growth areas already identified within the Shepparton and Mooroopna urban area. These growth areas include the following:

- The North Growth Corridor
- The South Growth Corridor
- The Mooroopna West Growth Corridor
- The North-East Growth Corridor
- The South- East Growth Corridor

The first three corridors have structure plans and development contribution plans adopted by the Council to guide their future development. Precinct structure plans and development contribution plans for the latter two corridors are currently being prepared. It is predicted that these five growth corridors will cater for the majority of the municipality's residential needs over the next three decades.

These residential areas have been identified in the north, in the east (just north of the large industrial area) and in the south. It should be noted that there are currently no future plans to increase residential areas on the west.

High Street rail crossing, Shepparton

Figure 6 Local Area Future Land Use

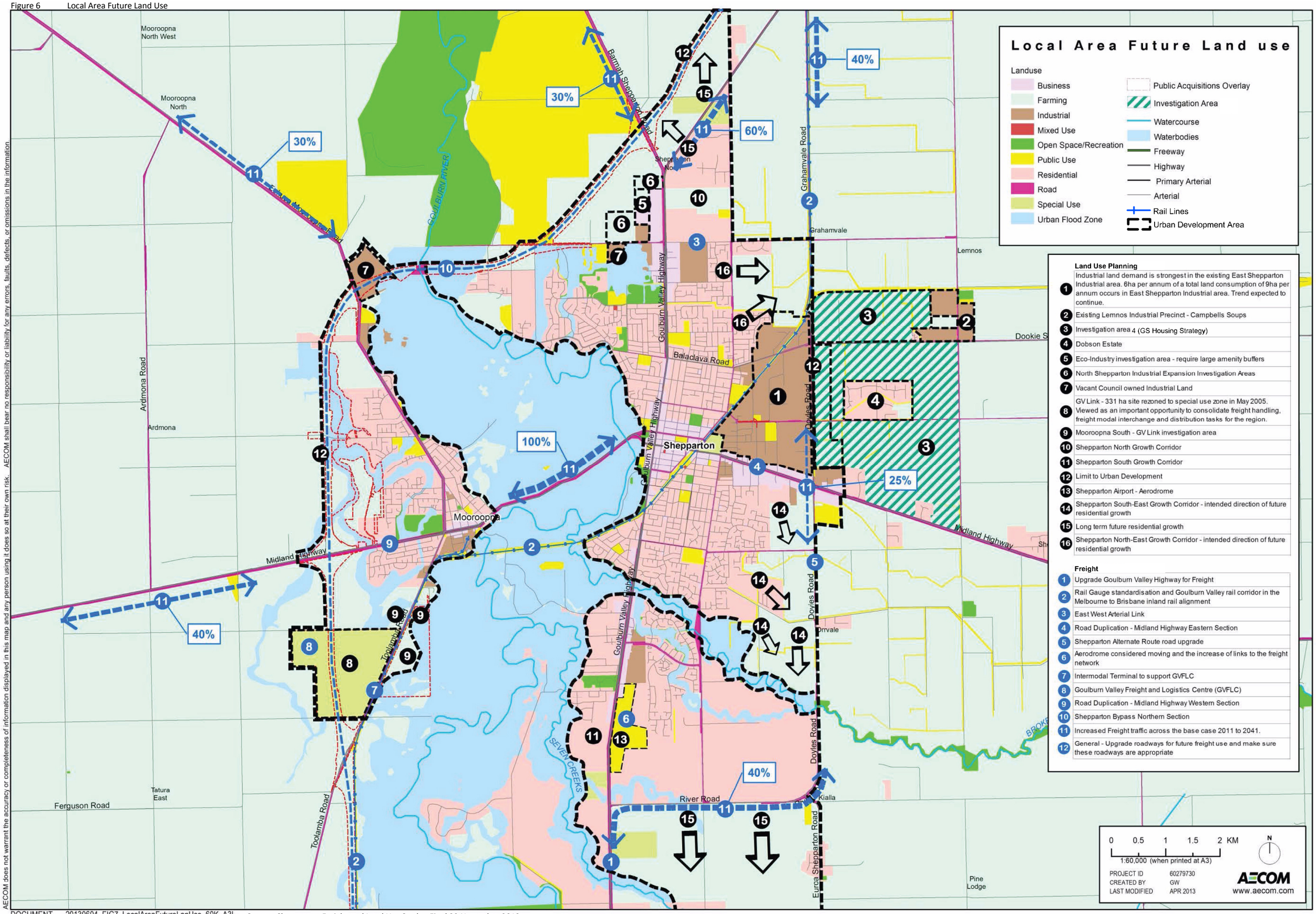
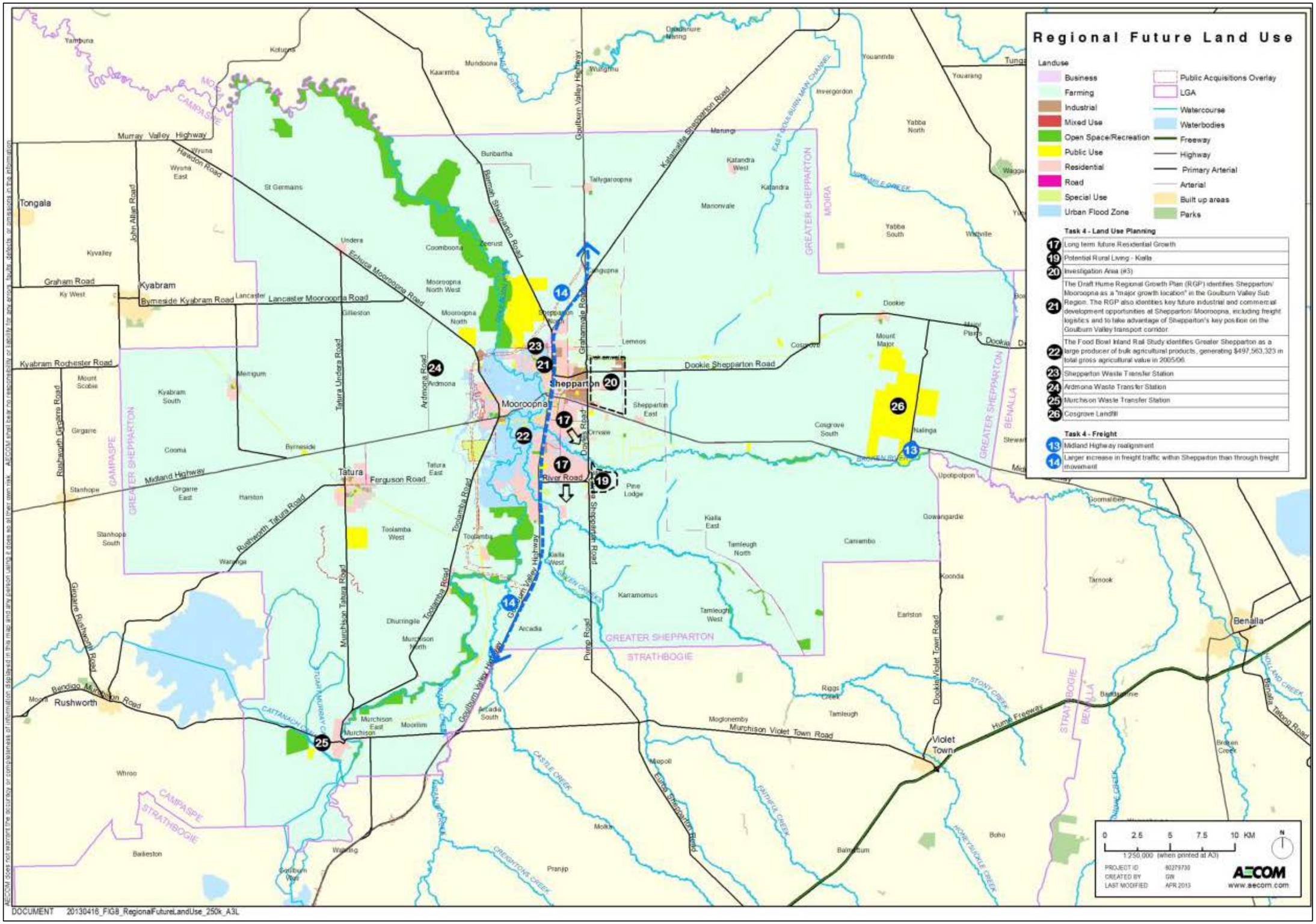


Figure 7 Regional Future Land Use



4.3 Traffic Volumes

The projected traffic volumes[4] show that there is expected to be an increase in heavy vehicle usage on the Shepparton road network if the proposed Shepparton Bypass is not built (refer Table 8). Of particular concern is the substantial increase in traffic volume on the east-west route (Midland Highway).

Table 8 Heavy vehicle growth between 2011 and 2041 – without the proposed Shepparton Bypass

Location	30 Year Growth
Midland Highway (West of the proposed Shepparton Bypass)	40%
Echuca-Mooroopna Rd (North-West of the proposed Shepparton Bypass)	33%
Barmah-Shepparton Rd (North of the proposed Shepparton Bypass)	33%
Goulburn Valley Highway (North-East of the proposed Barmah-Shepparton Rd)	60%
Shepparton Alternative Route (North of Knights Rd)	38%
Shepparton Alternative Route (Intersection of Midland Highway)	24%
Shepparton Alternative Route (North of Archer Rd)	43%
Midland Highway (on Causeway)	107%

The addition of the proposed Shepparton Bypass is likely to reduce the number of heavy vehicles using the Shepparton Alternate Route and the Goulburn Valley Highway between the bypass entry and exit, as shown in Table 9. There is also going to be growth of traffic on the proposed Shepparton Bypass particularly as the interstate freight task continues to grow.

Table 9 Heavy vehicle growth between 2011 and 2041 – with the proposed Shepparton Bypass

Location	30 Year Growth
Midland Highway (West of the proposed Shepparton Bypass)	40%
Echuca-Mooroopna Rd (North-West of the proposed Shepparton Bypass)	33%
Barmah-Shepparton Rd (North of the proposed Shepparton Bypass)	33%
Goulburn Valley Highway (North-East of Barmah-Shepparton Rd)	**-20%**
Shepparton Alternative Route (North of Knights Rd)	**-69%**
Shepparton Alternative Route (Intersection of Midland Highway)	**-53%**
Shepparton Alternative Route (North of Archer Rd)	**-79%**
Midland Highway (on Causeway)	**75%**

Note: *All external heavy vehicle usage will remain the same regardless of whether the bypass is constructed or not (i.e. no change in traffic generation).*

The vehicle usage of the proposed Shepparton Freeway Bypass gives a good indication of the through traffic and it shows a strong increase in heavy vehicle traffic expected to travel north and south of Shepparton. The opening of the Nagambie Bypass in May 2013 will also serve to enhance the attractiveness of both the existing Shepparton Alternative Route and the proposed Shepparton Bypass, particularly for interstate vehicle movements.

There is still expected to be a significant increase on the only east-west route (Midland Highway).

[4] Shepparton Bypass Strategic Transport Model – AECOM September 2012

4.4 Road Network Considerations

As described in previous sections, population, employment and freight movements are expected to increase across the municipality. This increased usage of both heavy and non-heavy vehicles on all routes will lead to further congestion and increased road user conflict.

The traffic volume growth will be particularly noticeable on the Shepparton Alternative Route, as it is already a traffic corridor with a high level of conflict between heavy and non-heavy vehicle types, due to the prevalence of industrial sites located on the route and the continued growth of residential areas. The capacity of the Shepparton Alternative Route is restricted by the presence of single-lane roundabouts, a rail crossing and delays by vehicles turning in/out of industrial and non-industrial (private residences and small orchards) access points. Consideration should be given to a scenario where the proposed Shepparton Bypass is not delivered in the foreseeable future. In such an instance interim arrangements to cater for the growing freight task should include modifying roundabouts, providing turn lanes (or deceleration / acceleration lanes), passing lanes or duplication to increase the capacity of the Shepparton Alternative Route.

Currently, the only other north-south route is the Goulburn Valley Highway which traverses through the centre of Shepparton. This is not a B-Double approved route between the Broken River and New Dookie Roads. Owing to the fact that this route enters the centre of Shepparton, any increase in traffic or freight volumes should not be encouraged.

Given that the freight industry is aiming at moving to increased use of B-Doubles, this means there is effectively only one route (the Shepparton Alternative Route) that provides an existing and duplicable route to major existing freight areas and around the fringe of the city. As discussed earlier, analysis has been conducted into the pre-feasibility of the proposed Shepparton Bypass. GV Link is a presumed land use by 2021, which has a high impact on the traffic generation and distribution in the area. As discussed earlier and in Table 9, the construction of the proposed Shepparton Bypass is predicted to greatly reduce the traffic along the Shepparton Alternative Route and the Goulburn Valley Highway.

The other important links are those connecting the east and west; currently there is only one main east-west route (the Midland Highway), which means that all vehicles are directed through the centre of Shepparton. Having only one link also means that vehicles have a considerable amount of additional travel to get to their destination. For example, vehicles travelling south-eastbound on Echuca-Mooroopna Road (C355) destined for the industrial area to the east of Shepparton are required to travel down to the Midland Highway, travel eastbound (across Goulburn Valley Highway) and then travel northbound on the Shepparton Alternative Route. Consideration should be given to an additional east-west link which connects the C355 to the Goulburn Valley Highway and the Shepparton Alternative Route via Wanganui Road and Ford Road.

4.5 Truck Dimension Changes

There is predicated to be a shift from smaller trucks to B-Doubles and larger approved heavy vehicles (HPFVs – High Productivity Freight Vehicles) as they offer greater efficiency and represent a lower rate of carbon emission per ton carried. As freight generators demand lower costs and freight operators increasingly adopt the usage of HPFVs, there will also be an overall reduction in the amount of vehicles needed to transfer the same freight task. The introduction of B-Doubles and other approved heavy combinations will reduce the proportionate number of vehicles required to move freight, particularly as freight volumes grow overall and more heavy vehicles are required. It is important that future freight network planning considers the impact of such vehicles.

The challenges of addressing an increasing freight task are pushing government to reduce the number of vehicles further by allowing B-Triples access onto Australia's main highways and strategic freight routes. The Shepparton Alternative Route, Midland Highway and a number of other roads are currently approved for B-Double use. Consideration should be given to the trialling of B-triples along these routes.

Trials have commence on the Hume Highway and if this proves successful then this may be rolled out to other strategic highways on the network in the medium to longer term including the Midland Highway and Goulburn Valley Highway. It should be noted that a number of infrastructure proposals would be required to make such a proposal feasible including the delivery of bypasses, rest stops/driver facilities, decoupling locations and a more rigorous road maintenance regime

5.0 Outcomes from Industry Consultation

5.1 The Consultation Process

Major freight generators and transport service providers have been consulted during the preparation of the study. A number of candidate freight generators and transport service providers were identified by the Greater Shepparton City Council study project steering committee for inclusion in the consultation process. These were identified on the basis of their levels of activity, their national freight network access requirements and the potential benefits they may receive from the delivery of any infrastructure proposals that are identified in this study. Details of the generators included in the stakeholder consultation are included in Appendix A.

Freight generators and transport service providers were asked during a face to face interview in November 2012 to provide the following information to inform the study:

1) A description of the scale, geographic coverage and nature of existing and potential future operations
2) Details of the use of the Shepparton freight network for operations
3) Issues with the existing road freight network
4) Any commercial considerations determining existing routing choice.
5) Any anticipated changes in levels of activity, activity profiles or routes used.

5.2 Consultation Responses from Freight Generators

5.2.1 Campbell's Soup

Commentary – large global food processor and manufacturer with a long history of operations in the Shepparton region. Campbell's currently utilises the services of Scott's Transport, K & S Transport and Visy Logistics. It is situated on Lemnos North Road north of Old Dookie Road and receives packaging and other raw material food inputs into its facility for processing/manufacturing and supply to markets nationally. It also has a warehouse facility on Old Dookie Road. For national redistribution, Campbell's utilises the services of Visy Logistics. They would also seriously consider a relocation of operations to the west of the CBD adjacent to the proposed bypass and GV Link facility if:

- A sound east-west network solution was identified
- An efficient and reliable train service could be offered
- A sound commercial business case in consultation with council was developed

Scale – Campbell's receives in the order of 100 TEU's (20ft container equivalents) by truck per month into its facility, it also receives some 2 – 3 B-Double loads of chicken frames each week and would generally transfer 2 – 3 semi loads of finished product to Visy Logistics each day for redistribution nationally. Campbell's also sends 4 to 5 TEU's by rail per day to Melbourne during peak season (30 per month/ April to July) which reduces to around 12 TEU's per month in the quieter months (August to March). Please note that Campbell's were not aware of the Mooroopna rail siding closure at the time of consultation.

Accessing Shepparton Freight network –due to its location, Campbell's utilises the feeder roads from Old Dookie Rd into the Visy Logistics site situated on Drummond Rd off Grahamvale Rd. This routing necessitates regular and frequent use of the Shepparton Alternate Route and in turn leads to regular accessing of the Goulburn Valley Highway for transport to Melbourne and north to the NSW and QLD markets.

Purpose for existing location – access to Visy Logistics and access to major routes travelling north to NSW and QLD, south to Melbourne and historic/legacy reasons associated with the site. Campbell's are also required to travel west via the CBD on Midland Hwy which is regarded as problematic for the freight task and identifies the urgent need for an alternate east-west route that avoids the CBD.

Current Routes – refer Item 3 above.

Current Freight Network Issues – as all operations are east of the CBD, primary issues are the heavy use of the Shepparton Alternate Route which they describe as not designed for the level and type of use. East-west movements are seen as a real problem, generally not-efficient and unsafe. Campbell's also cited that it would be happy to consider relocating operations adjacent to the proposed bypass if an improved east-west solution could

be identified. Its current intention is to remain east of the CBD due to its existing operations, the need to access nearby Visy Logistics and the need to access its interstate supply markets. They also require improved B-Double access, observed growing congestion on the main freight route and see east-west travel via the CBD as one of the freight networks' greatest issues.

Commercial Considerations – Compels recognises that local vehicle access, the increasing use of HPFVs and good access to interstate markets as being pivotal toward achieving efficiency, reducing cost and maintaining competitiveness within the region.

Volume/Profile Change – sees continued modest yearly growth, the increased use of HPFVs and would like to access rail if a reliable and cost-effective service could be developed.

5.2.2 Telford's Building Systems

Commentary – Local family owned tilt-slab manufacturer, property developer, commercial builder and steel fabricator that operates a large national operation and has a substantial primary transport operation in its own right. Telford's receives large quantities of concrete manufacture inputs, steel and supplies into Shepparton and predominantly distributes end products into markets on the east coast of Australia. Telford's also has a well-developed transport operation that has a fleet of approximately 7 B-Doubles and a series of 5 ton, 7 ton and 14 ton tray vehicles that regularly use the Shepparton freight network.

Management stated that:

- A review of the network should include consideration of the current need to travel to Tocumwal to assemble larger vehicle combinations for interstate shipment and how this can be avoided.
- HPFVs were a critical part of their being able to competitively access markets, particularly in QLD and the NT, and observe in their own operation a shift from approximately 10 years ago from semi-trailers to B-Doubles today. Without this shift Telford's says that it would not have experienced the growth nor would it be competitively positioned where it is today.

Scale – 7 x B-Doubles and series of tray top vehicles. Moves some 11,000 tons of concrete and 12,000 tons of steel out of the region with a similar volume of inbound. On this basis, all B-Doubles would normally access the Shepparton network at least once daily with smaller tray vehicles accessing the network several times a day.

Accessing Shepparton Freight Network – based out of Florence St in the east, Telford's regularly uses the Shepparton Alternate Route, the Midland Hwy for western movements and the GV Highway both north and south of the CBD. Telford's would also like to see improved turning circles on major freight routes that could be modified to be able to handle long lengths of steel on extended trailers.

Purpose for existing location – Telford's cites the following reasons – purchased the current site in 1998 for space to grow, Florence St being B-Double gazetted, has good access to northern and southern routes of the CBD and also addresses a need for eastern-western movement. As property developers, Telford's also recognise the proportionately higher level of industrial land development east of the CBD and on this basis, the superior access of this land and future industrial land to north, south and eastern freight routes.

Current Routes – as per above, from Florence St, approximately 1/3 of movements travel north of the CBD, 1/3 travel toward Melbourne, Bendigo, Mildura, north- west and another 1/3 travels toward Wangaratta, Albury, Canberra, Wollongong and Sydney.

Current Freight Network Issues – key points illustrated here were identified as : the narrow design of the New Dookie Rd/Shepparton Alternative Route intersection (not designed for lengthened trailers), the intersection of Old Dookie Rd/Florence St also being too narrow and of particular concern, in addition to the narrowness of the Florence St and Benalla Rd intersection.

Commercial Considerations – efficient freight network that supports HPFVs seen as pivotal in maintaining competitiveness and capturing new markets. Would be hard pressed to move operations west of the CBD as has they have property interests east of the CBD.

Volume/Profile Change – will move to highest allowable HPFVs, would like to be able to assemble large vehicle combinations, including Road Trains, AB Double and B Triples (refer to Appendix B), within Greater Shepparton and not Tocumwal and needs larger intersections to accommodate lengthened trailers with long lengths of steel.

5.2.3 Geoff Thompson Holdings Limited

Commentary – largest apple and pear producer in Australia with a vertically integrated business model and is preferred supplier to Coles, Woolworths and Aldi. Has substantial orchards northwest of the CBD, but also has a further network of cool stores and other orchards across the region. Geoff Thompson (G.T.) also acts in a third

party (3PL) processing capacity for other growers/producers, has a fleet of B-Double and smaller commercial vehicles and continues to investigate innovation in bulk freight movement to maintain costs and competitiveness, particularly for supply to the major grocery chains (seeking lower supply costs) and to compete with fruit imports.

Scale – has 19 heavy vehicles with some 12 -13 B-Doubles, supported by refrigerated tautliners (semi-trailers) and a number of refrigerated vans.

Accessing Shepparton Freight network – has heavy reliance on the network for movement between orchards, processing facilities and storage facilities and uses all major freight routes. In the northwest has heavy reliance on the Bunbartha Rd-Shepparton Rd, which is problematic when endeavouring to access the Shepparton Alternative Route when transferring product from orchards back toward the CBD and facilities near and reliant upon the Shepparton Alternative Route. Has particular issue when travelling east-west across Midland Hwy, particularly during harvest season and sees this route as inefficient and dangerous with its current lack of separation on the causeway.

Purpose for existing locations – has developed site due to early orchard development, access to lower cost storage locations, access to Melbourne and interstate markets and some sites which have been inherited via acquisition.

Current Routes – all major freight routes, heavy use of Nathalia and Bunbartha Rds.

Current Freight Network Issues – sees the need for greater number of B-Double gazetted roads, says additional east-west link desperately needed over the Goulburn River and between Bunbartha, Shepparton Road and Goulburn Valley Highway along the Bowey Road/Tallygaroopna West-Bunbartha Road link. Geoff Thompson also sees a general freight network upgrade as critical to support the growing use of HPFVs as they need improved efficiency/lower costs to remain in operation and combat the cost-down pressures of the major grocery chains.

Commercial Considerations – efficient freight networks that allow HPFVs seen as critical toward remaining competitive and being able to cost-effectively supply interstate markets.

Volume/Profile Change – sees need for increased use of HPFVs.

5.2.4 Unilever Australasia

Commentary – large global manufacturer and distributor of food, household cleaning and domestic products. , also has a vertically integrated business model and supplies to all of the major wholesalers and retailers nationally. Unilever recognises its base in Tatura as being able to efficiently deliver to the south eastern part of Australia, NSW and into northern QLD. It is currently undertaking a review of operations to determine what role Greater Shepparton will continue to play in terms of its national mix of manufacturing, supply chain and transport.

Scale – substantial movements with specific volume data being supplied separately.

Accessing Greater Shepparton Freight network – moves significant volumes into and out of the region on a daily basis accessing all major freight routes with particular reliance on the Shepparton Alternate Route.

Purpose for existing locations – legacy sites that were inherited some years ago.

Current Routes – all major freight routes, including the Goulburn Valley Hwy north and south of the CBD.

Current Freight Network Issues – it must operate B-Doubles in order to compete effectively and underpin manufacturing operations in Melbourne and Greater Shepparton. Has identified the need to upgrade major freight routes, particularly the Shepparton Alternative Route as being very important towards determining what processing, handling and transport operations should/should not be based in Greater Shepparton.

Commercial Considerations – efficient freight networks that allow HPFVs seen as critical toward remaining competitive and being able to cost-effectively supply interstate markets as well as determining use of Greater Shepparton versus Melbourne for core operations and activity type.

Volume/Profile Change – sees need for increased use of HPFVs toward servicing growing interstate markets, but would welcome the development of a more viable rail service.

5.2.5 Pental Limited

Commentary – large manufacturer and distributor of household cleaning and domestic products. , also has recently vertically integrated another supplier (White King) by transferring Melbourne processing to Shepparton. Pental supplies to all of the major wholesalers and retailers nationally via Visy Logistics and currently uses both road and rail. Important to note within this study is that in 2013, Pental intends to transfer a large volume of movements (approximately another 450 TEU's) from rail to road which will place further heavy truck movements onto the network. Both inbound and outbound, Pental handles some 4000+ TEU's per annum and its connectivity to Melbourne (ports) and interstate markets is important. The consultant recommends further consultation with Pental to understand its freight task, freight network usage, expectations for 2013 and what measures can be taken to support operations in Greater Shepparton.

Scale – outbound Pental transfers some 150 TEU's per annum to Melbourne. Inbound it receives some 5 semi-trailers of raw material inputs each day. Inbound it also receives some 3,600 TEU's of product per annum, which is expected to grow by a further 600 TEU's per annum in 2013 when product ex New Zealand, needed for its latest new acquisition, is included. Again – note that it anticipates in 2013 transferring an additional 450 TEU's currently transferred by rail to road.

Accessing Greater Shepparton Freight network – volumes as per above and for most road movements relies upon Visy Logistics. Pental depends on Visy Logistics to some extent as there are no other operators locally that have the capability to consolidate whole loads for interstate locations. This must be considered when continuing to pursue opportunities for G.V. Link.

Purpose for existing locations – site developed some years ago due to lower cost, good area for future growth, not impacted by CBD or residential growth and access to north, south and eastern major freight routes. Also owns adequate land to provide for further expansion but cited expensive land rates as an issue.

Current Routes – all major freight routes, including the GV Hwy north and south of the CBD. Currently also requires optimal road connections to rail.

Current Freight Network Issues – needs effective major freight routes due to need to maintain competitive processing and manufacturing operations, particularly to compete with imports, to be able to connect well with ports and either good access to a third party services provider, or the ability to deliver full loads directly.

Commercial Considerations – efficient freight networks that allow HPFVs seen as critical toward remaining competitive and being able to cost-effectively supply interstate markets as well as determining the use of Greater Shepparton versus Melbourne for some manufacturing operations and activity type. Currently transferring some manufacturing from Melbourne to Greater Shepparton.

Volume/Profile Change – sees need for increased use of HPFVs toward servicing growing interstate markets but cites as being forced to transfer freight task from rail to road in 2013 due to poor service and higher cost by rail. This will add significant further freight to the Greater Shepparton inbound and outbound freight task, particularly from Melbourne to Greater Shepparton.

5.2.6 Visy Logistics

Commentary – large assembler and distributor of packaging products to support local processing and manufacturing operations. Operates canned manufacturing operation in Wheeler St with major supply to SPC Ardmona, Campbell's Soup, Unilever and also for supply to Brisbane and Sydney. Operates a substantial operation with generally 3 to 4 B-Double movements ex Melbourne per day.

Scale – 3 to 4 B-Double movements per day into and out of Greater Shepparton each day.

Accessing Greater Shepparton Freight network – undertakes several movements each day from Wheeler St to Visy Logistics and customer sites within Shepparton, but has heavy reliance on the Shepparton Alternative Route for direct access to Melbourne.

Purpose for existing locations – sites acquired and developed some years ago for optimal proximity to major customers based on the east of Greater Shepparton, supply to SPC Ardmona operations in Mooroopna, proximity to Visy Logistics and access to major south and eastern major freight routes.

Current Routes – all major freight routes, particularly the GV Hwy south, heavy use of the Shepparton Alternative Route and feeder roads, Benalla Rd via the CBD to Mooroopna.

Current Freight Network Issues – needs effective major freight routes due to need to maintain competitive processing and manufacturing operations, particularly to support cost competitive manufacturing and be able to receive and ship freight to Melbourne. The Shepparton Alternative Route needs urgent improvement due to growing traffic and increased use of HPFVs. This is seen as vital route for supporting local freight generators.

Commercial Considerations – Due to lower value of packaging, efficient freight networks that allow HPFVs are seen as critical toward remaining competitive and being able to cost-effectively supply and support local manufacturing operations.

Volume/Profile Change – packaging seen as a critical manufacturing input and lowest cost possible seen as very important to support manufacturing cost competitiveness. Packaging changing from canned to plastic, which from a road freight perspective means larger, lower weight truck loads, hence requiring larger (cubic) capacity vehicles.

5.2.7 AMCOR

Commentary – similar to Visy Packaging, a large assembler and distributor of packaging products to support local processing and manufacturing operations based on Doyles Rd. Operates large carton assembly operation that complements operations in Swan Hill, Mildura, Robinvale and Yarra Valley. Is reliant on Scott's Transport and Kreskas Brothers Transport as a preferred service providers for most transport requirements. AMCOR serve 4 major customers within Greater Shepparton area. .

Scale –Freight movements consist primarily of ridged and semi-trailer loads into and out of Greater Shepparton.

Accessing Greater Shepparton Freight network – undertakes several movements each day from Doyles Rd to customer sites within Greater Shepparton, but has heavy reliance on the Shepparton Alternative Route for direct access to Melbourne.

Purpose for existing locations – Historical and position on alternate route, good access to major transport routes and centrally located to customers.

Current Routes – all major freight routes, particularly the GV Hwy south, heavy use of the Shepparton Alternative Route and feeder roads, Benalla Rd via the CBD to Mooroopna.

Current Freight Network Issues – has stressed the need for another east-west connection particularly to service customers west of CBD. Excessive grain traffic during harvest adds to the congestion on the Shepparton Alternative Route with the current single lanes inappropriate and inefficient. AMCOR believes that the inadequacy of the Shepparton Alternative Route serves to lower productivity and increases costs. Council also needs to gain a firm understanding of Shepparton Alternative Route's operation and function, particularly in relation to through interstate traffic with major transport operators using this route to access QLD, northern NSW and also from these states/regions back into Melbourne. They would like to use more rail, but rail is not competitive to road at the moment.

Commercial Considerations – as per Visy packaging, due to lower value of packaging, efficient freight networks that allow HPFVs are seen as critical toward remaining competitive and being able to cost-effectively supply and support local manufacturing operations. Would also like to increase use of Greater Shepparton to supply to markets further than north west Victoria, especially due to early cut-offs for collection in two of its Melbourne sites and being able to achieve better eastern seaboard transit times.

5.2.8 Tatura Milk Industries/ Bega Group

Commentary – part of Bega Cheese Group based in Tatura and Strathmerton. Large producer and exporter of dairy milk products with some 80% of products exported via container to Melbourne. Transports most products via container into Melbourne, avoiding the Greater Shepparton CBD but also delivers product into Callister St from its Strathmerton operations. Was previously a large user of rail but transferred to road as rail was providing poor levels of service.

Scale – Ships in the order of 4,500 TEU's to Melbourne per annum. Receives at least 600 TEU's via Kreskas Bros Transport/Lemnos per annum and a further 2,000 LCL (less than container load shipments) via Visy Logistics to Melbourne.

Accessing Greater Shepparton Freight network – via Kreskas Bros, high user of major freight routes into and out of Greater Shepparton. Also undertakes several movements each day from its Strathmerton operations into Kreskas Bros in Lemnos for storage, consolidation and shipment. Good access to Melbourne and Melbourne port seen as critical to its future viability.

Purpose for existing locations – historic development of site, proximity to dairy farmers and supply of milk inputs. Needs access to Greater Shepparton to complement storage capacity, but consolidation for shipment to Melbourne and for export. With products shipped from its Strathmerton facility, it is also a heavy user of the GV Highway north and also requires access to the Shepparton Alternate Route for transfer to Lemnos.

Current Routes – all major freight routes, particularly the GV Hwy north, heavy use of northern section of the Shepparton Alternate Route and reliant on access to Kreskas Bros in Lemnos.

Current Freight Network Issues – would welcome improved rail service to support high container movement between Greater Shepparton and Melbourne, particularly due to high export volume. Current rail service seen as inefficient as and more costly than by road.

Commercial Considerations – to maintain export competitiveness to secure further export growth, connections to Melbourne and Melbourne ports are seen as critical. With large container movements, relying on service providers (Kreskas Bros) to identify higher productivity vehicles – refer to Kreskas Bros for further commentary.

Volume/Profile Change – has potential to grow export volumes if costs can be contained, efficiencies secured and transport provided at lowest possible cost.

5.2.9 SPC Ardmona / Coca Cola Amatil

Commentary –Large iconic manufacturer and distributor of fruit and food products for supply to major Grocery Chains and Food Service distributors that has a long and proud history within Greater Shepparton. There has been a decline in volumes over the recent years due to the high Australian dollar, the major Grocery Chains importing private label fruit products and also the export market becoming harder to compete in. The consumer demand within Australia has also changed to one of convenience, therefore moving away from the traditional canned products to plastics and snacks – "on the go", this has led to changes in production requirements and a rationalisation in manufacturing for SPCA. SPC has operations in Mooroopna, Kyabram and Greater Shepparton. Current sites are a combination of legacy manufacturing/processing sites, sites that have enjoyed good access to local (orchard) suppliers, are large operating sites and have good access to transport service providers. SPCA has its NDC (National Distribution Centre) located on the corner of Bypass and Archer Street and it is here that all finished products are consolidated to service the daily customer orders for national distribution - road to the East coast and rail to the West.

SPC also has a significant freight task, despatching some 20 to 25 B-Doubles per day to markets nationally.

Scale – 12 x semi-trailers ex Kyabram and Mooroopna, transfer product from the west to the east on a daily basis to the N.D.C. in Lockwood Rd, Shepparton. Once consolidated, some 20 to 25 B-Doubles are despatched from Lockwood Rd on a daily basis directly to interstate markets.

Accessing Greater Shepparton Freight network – ex Kyabram via Mooroopna onto the Midland Hwy and via the CBD, from Lockwood Rd, onto the Midland Hwy for eastern movements to Sydney and heavy use of the Shepparton Alternate Route for interstate shipments to the north and to Melbourne.

Purpose for existing locations – sites developed due to proximity to suppliers (orchards) and access to major freight routes into and out of Greater Shepparton.

Current Routes – all major freight routes, including the GV Hwy north and south of the CBD. Heavy use of Midland Hwy ex Kyabram into and through the CBD.

Current Freight Network Issues – a more viable east west connection that avoids the CBD is urgently required. SPC will be undertaking further upgrades to its Mooroopna facility and are looking to expand operations which will place further east-west traffic onto the causeway into Shepparton. SPC has also undertaken a further review of operations, chasing new product and market opportunities that it would like to supply nationally out of Greater Shepparton, including from its Mooroopna processing facility. SPC identifies high value in the construction of a bypass and a supporting intermodal hub. It sees rail as an important element to support an intermodal hub, but questions how many major freight generators can invest long term to support the viability of a hub. SPC also has issue with: poor B-Double access into Lockwood Rd, the intersection of Lockwood Rd/Old Dookie Rd being too narrow for B-Doubles and Lockwood St itself being too narrow for its current freight task This section of road can be dangerous as clear driver visibility is often obscured and there is a lack of clear street line marking to support good driving alignment.

Commercial Considerations – HPFVs with supporting road infrastructure is vital toward ensuring lowest manufacturing and supply cost and commercial viability.

Volume/Profile Change – there is an essential need for the increased use of HPFVs toward servicing growing interstate markets and this is seen as being critical in underpinning their Greater Shepparton manufacturing operations.

5.2.10 Kreskas Brothers Transport

Commentary – medium-sized transport operator, based at Lemnos, who transfers containers between Shepparton and Melbourne for producers and importers within the Shepparton region.

Scale –operates 20+ semi-trailers, B-Doubles and extended length trailers.

Accessing Greater Shepparton Freight network – ex New Dookie Rd Lemnos, accesses Shepparton Alternative Route regularly to connect with Goulburn Valley Highway and into the Port of Melbourne.

Purpose of existing locations – site has developed due to its proximity to suppliers (orchards and orchard farmer until recently) and access to major freight routes into and out of Greater Shepparton.

Current Routes – all major freight routes, particularly GV Hwy south. Kreskas is very reliant upon and is a heavy user of the GV Hwy into the Port of Melbourne.

Current Freight Network Issues – also supports a more viable east-west connection that avoids the CBD. Also of importance are larger designed roundabouts along the Shepparton Alternative Route. To maintain productivity it is also currently investigating longer trailer combinations with the desire of achieving the cartage of 2 x 40 ft containers in the one movement.

Commercial Considerations – strongly supports HPFVs with appropriate supporting road infrastructure as being vital toward ensuring cost efficiency, productivity and also sees this as vital toward supporting the region's economic future.

5.2.11 S Sali & Son Pty Ltd

Commentary – medium size predominantly interstate general carrier that also provides local bulk, palletised delivery and collection freight services within Shepparton and has been in operation since 1956.

Scale operates 7 B-Doubles and a semi- trailer.

Accessing Greater Shepparton Freight Network – utilises GV Highway north and south, heavy user of Shepparton Alternative Route, New Dookie Rd, Verney and Ford Rds. for local connections.

Purpose for existing locations – Verney Rd site has been in operation since 1943 as it is close to orchards, fruit packing sheds and connects easily with north, south and eastern routes and although congested westbound today, historically it has also accessed orchards on the west side of Verney Rd.

Current Freight Network Issues – also supports a more viable east west connection that avoids the CBD. Specific mention made of the need for additional B Double gazetted freight routes, better B Double access to cool rooms in industrial precincts but also made mention of: an improved intersection at Ford Rd and the Shepparton Alternative Route and the intersection of Verney Rd and New Dookie Rd as well as the Balaclava Rd roundabout. The point made again by Sali and Son is that all of these busy freight routes must have roundabouts designed for both HPFV use and also the combined use of heavy vehicles and passenger vehicles.

5.2.12 Scott's Transport Industries

Commentary- medium sized transport operator who specialises in interstate and Melbourne metro movements and bulk liquid transport who has been in operation since 1952. Scott's also employs more than 950 people.

Scale –operates 100+ semi-trailers, B-Doubles, tankers and other equipment. Has a further 12 rigid vehicles who undertake local freight transfers.

Accessing Greater Shepparton Freight network – uses Doyles Rd and Shepparton Alternative route regularly to connect with Goulburn Valley Highway and into Melbourne.

Current Freight Network Issues – Doyles Rd as a single lane carriageway is dangerous, has narrow shoulders, is not fit for purpose and as a number of residential properties access this road - is likely to experience more serious accidents as traffic volumes grow. Scott's continue to seek clients from Mooroopna/west for direct supply to Melbourne as east-west movements across Shepparton add time, cost and spoil the amenity of the CBD.

Current Freight Network Issues – the intersection at Congupna/Doyles Rd at the northern end of the Shepparton Alternative Route - is too sharp for large vehicle movements in its current form.

5.2.13 Gattuso Transport

Commentary- smaller local transport operator servicing the region, into Melbourne and performs no interstate movements who commenced operations in 1990.

Scale –operates 16+ semi-trailers and B-Double combinations which travel to Melbourne on a daily basis. Performs regular transfers to Albury and Melbourne as well as neighbouring smaller regional centres. These centres also service by a further 12 rigid vehicles including central Shepparton, Deniliquin, Benalla, Wangaratta, Cobram, Kyabram, Strathmerton, Echuca, Wangaratta and Yarrawonga.

Location –operates on a company owned 4 acre site in the north east as it connects easily with Deniliquin, Kyabram, the adjacent industrial precinct, Wangaratta and the Shepparton Alternative Route to Melbourne.

Current Freight Network Issues and Commercial Issues – issues raised by Gattuso Transport included:-

- Central Avenue needs urgent attention in terms of widening and also the intersection of the Midland Hwy/ Central Ave given its heavy vehicle usage by Keatings, Kreskas Bros, Visy Logistics, Freds and Gattuso transport companies. The intersection/roundabout of Central Ave and the Midland Hwy must become dual lane.
- Shepparton Alternative Route must be made dual lane with widened shoulders given its increasing heavy vehicle use.
- The proposed western bypass would not be of benefit as they have acquired freehold property in the east with 75% of deliveries occurring east of the Shepparton CBD.
- The current rail service currently provides poor levels of service and would need to improve significantly to offer a viable alternative. A much improved rail service would support more efficient movement of grain and rice crops.
- Expects to see increased road movements into and out of Shepparton given the closure of the rail siding in Shepparton in Dec 2012.

Commercial Considerations – poor east west connections add considerably to operational costs when servicing customers west of the CBD.

5.2.14 Keating Freight Lines

Commentary- Shepparton based medium-sized operator commenced in 1982 travelling between Shepparton, Melbourne, Albury, Barnawatha, Strathmerton, Cobram, Deniliquin, Kyabram, Echuca, Tongala and Wodonga.

Scale – operates 3 B-Doubles and 12 Semi Trailers for linehaul and 6 ridgids for localised movements.

Location – 415 New Dookie Road Lemnos north east of Shepparton. Adjacent to Campbell Soups, 23 acre site with tenants such as Visy logistics, Medcon, Goulburn Valley Maintenance Systems and Keating Freight Lines Pty Ltd. The area allows for future growth and expansion.

Accessing Greater Shepparton Freight network – Regularly utilize Goulburn Valley Highway, Doyles Road, Benalla Road, High Street, Midland Highway, Lemnos North Road, Central Avenue, Nathalia Road, Numurkah Road, Weslford Street and Balaclava Road.

Current Freight Network Issues and Commercial Issues – The intersection of Numurkah Road (Goulburn Valley Highway) and Nathalia Road has a serious adverse camber when right turning from Nathalia Road onto Numurkah Road. In the same way Goulbourn Valley Highway and Shepparton Alternative Route intersection has the same safety problem when turning from Goulburn Valley highway off a left-hand bend involving an acute right hand manoeuvre into Shepparton Alternative Route to the south. This Intersection also creates a conflict turning into Katamatite–Shepparton Road at the Congupna turn off.

Concerned about the intersection of Midland Highway and Central Avenue. Heavy vehicle conflicts through Shepparton and Mooroopna needs to be resolved by a second river crossing from Shepparton to Mooroopna via a northern approach.

Strategically Local, State and Federal Governments must recognize the importance of Shepparton as a regional hub and its importance in servicing the eastern seaboard and South Australia. It is also important for Local Government support existing business to resolve issues and support future growth to ensure all benefit. Further planning is required for the increased use of HPFVs which will allow growth within the region.

5.2.15 Fred's Transport

Commentary- medium sized transport operator who performs capital city to capital city line haul, particularly Melbourne-Sydney-Brisbane.

Scale –operates 50 B-Doubles and 6 semi-trailers. In addition they utilise a further 250 contractors to service their line-haul corridors. These operators are 99% B-Double operators.

Accessing Greater Shepparton Freight – servicing Melbourne, Sydney and Brisbane, Fred's regularly uses the Goulburn Valley Hwy north and south of Shepparton, and relies heavily upon the Shepparton Alternative Route to access north, south and also connect with the Midland Hwy going east for movements to/from Sydney.

Purpose for existing locations – current site in north east industrial precinct is occupied as it directly accesses routes to the north, south and west for Brisbane, Melbourne and Sydney and is able to easily access Shepparton with most collections occurring east of the CBD.

Current Freight Network Issues – the intersection of Doyles/ Benalla Rd is very poor and too narrow for heavy vehicles. Coming into Shepparton along the Shepparton Alternative Route is dangerous particularly in locations where dual lanes transition into single lanes. For this reason, Fred's see the duplication of the Shepparton Alternative Route as critically important particularly as they are aware that some 22% of movements for the 7,500 to 8,000 movements each day are heavy vehicles.

Fred's also raised the following network constraints and recommendations:-

- There is an urgent need for appropriate rest stops throughout Shepparton, particularly along the Shepparton Alternative Route
- Unofficial rest stops, for example adjacent to the hotel in Florence St, are not ideal but are regularly used for driver changes
- As per above, the roundabout intersection at Doyles/ Benalla Rd is too narrow and should be dual lane
- Other regularly used roads which should be dual lane include Channel Rd and Poplar Ave
- There must be much better road rule enforcement along the Shepparton Alternative Route.

Volume/Profile Change – there will be a growing bias towards being tow operators, where the freight generator owns the trailer or Keating's hauls other carriers' trailers. Shepparton will continue to be a major interchange point for drivers, as interstate traffic grows, Shepparton is expected to grow in importance as a recognised freight route for the eastern seaboard so that the Shepparton Alternative Route becomes a very strategic freight corridor.

5.2.16 Hicks Hunter Transport

Commentary- recently merged (2008) smaller transport operator who performs localised movements, has a reducing interstate service and performs regular services to Melbourne.

Scale – operates 10+ semi-trailers and a further 5 B Doubles and rigid vehicles.

Accessing Greater Shepparton Freight -uses all southern, northern, western and eastern routes into Shepparton and relies heavily upon the Shepparton Alternative Route. Also regularly runs to Cobram and hence an efficient entrance into the northern section of the Shepparton Alternative Route is very important.

Current Freight Network Issues – Hicks Hunter Transport outlined a number of existing and future issues with the current Shepparton freight network:-

- There is an urgent need for improved heavy vehicle / B Double access into the primary industrial precincts, for example Lockwood St for better access into SPC Ardmona
- Intersection of Benalla Rd / Shepparton Alternative route must be upgraded to dual lane
- Grahamvale Road is currently not fit for purpose for heavy vehicle interstate movements
- Access into Bunnings and the very close proximity of Bunnings to the Benalla Rd / Shepparton Alternative Route roundabout is problematic and dangerous
- Callister St / Benalla Rd right hand turn very difficult for heavy vehicles, much easier to travel in opposite direction and do a U-turn which is impractical for B Doubles. Also difficult to service Callister St with B Doubles given road widths and access onto and off Callister St.
- Lockwood St also problematic, particularly with 95% of heavy vehicle movements related to SPC Ardmona. This street should be gazetted for B Double use and its status made clear, particularly to non-local interstate carriers. This street should also have appropriate road dividers to ensure heavy vehicle passing traffic keeps to its side of the road safely.
- Does not believe that the proposed bypass will be viable as its location away from the gravity centre of freight to the east of Shepparton, a poor connecting rail service, the availability of cheap land in the east and direct access to north, south and eastern arterial routes all work against the precinct being commercially viable.

5.2.17 Leocata Transport

Commentary- smaller transport operator, who performs localised movements, performs a regular shuttle service for Unilever from Kyabram to Melbourne as well as between Unilever's Tatura and Kyabram operations.

Scale – operates10+ semi-trailers and a B Doubles as well as 5 rigid vehicles for localised movements.

Location – occupies current site on corner of William and Ross St in north eastern industrial precinct following purchase of property 3 years ago.

Accessing Greater Shepparton Freight – uses all southern, northern, western and eastern routes into Shepparton .

Also identified the following local network issues and concerns:-

- Corner of Williams St and Tatura-Murchison Rd which is in dire need of widening. Observes that adjoining culvert is regularly damaged by heavy vehicle impact.
- Access from the Goulburn Valley Hwy into Vincent St via the existing service road needs to be upgraded to support B-Double access.
- Has been in consultation with council and VicRoads for Vehicle Mass Management allowances of up to 68 tons, with council also to consider extended lengths for vehicles.

5.2.18 Summary of Key Findings from Freight Generator Survey Respondents

The key findings from the stakeholder engagement in this area were:

- Freight generator activity is concentrated to the east and north east of the CBD
- There is a heavy reliance on the Shepparton Alternative route
- Most freight generators have operations that are based in industrial land to the east and north east of the CBD, with a concentration of sites adjacent to or in proximity to the Shepparton Alternative Route
- The Shepparton Alternative Route is heavily used with increased usage by non-Shepparton based operators and freight generators (interstate travel north and south). It is not designed for its current level and type of use with concerns regarding variable speed limits and interstate drivers not following speed signs
- The Shepparton Alternative Route needs to be upgraded and better managed for the following reasons:
    - Traffic growth has occurred historically and is forecast to continue
    - There is a growing trend of bigger capacity heavy vehicles, particularly B -Doubles
    - Congestion levels are generally high and are anticipated to worsen
    - There are conflicts of movement along the route giving rise to safety concerns (particularly at the Benalla Rd/ Shepparton Alternate Route intersection).

Some vehicles are exceeding the speed limit giving rise to safety concerns (see Table 5 for summary of road crashes).

- Many freight generators and major business see efficient freight as a critical element of their operations. All major generators identified the need for the increased usage of HPFVs to remain cost competitive and in a number of instances, cited this innovation as a critical element of business sustainability.
- All major generators recognised the strategic importance of Greater Shepparton as part of their national supply chain.
- A number of major freight generators are currently undertaking network reviews and are also investigating the cost effectiveness of transport, access to interstate markets, access to Melbourne port and access to a viable rail service. These major generators would generally prefer that Shepparton play a greater role in their national (eastern seaboard) distribution freight task subject to customer demands, delivery locations and feeder operations.
- A high number of freight generators and service providers anticipate the increased use of HPFVs and other specific larger and longer vehicle combinations. The road network will have to be designed to accommodate the increased use of larger vehicles.
- There is a desire to use rail in the right circumstances. Barriers to use are:
    - unreliable service

- an insufficient number of services
- slow transit times
- high costs

One major generator intends to transfer a significant volume of rail freight to road freight for these reasons.

- There is a desire for clarification around the timing of the proposed bypass.
- The viability of the bypass has been questioned particularly if a well-defined supporting east-west connection is not also provided. Most respondents see a second east-west connection as vital for establishing a sound business case for the establishment of the GV Link intermodal facility west of the CBD.
- Based on current operations, there is a low level of interest in both the GV Link and the proposed bypass whilst upgrading the Shepparton Alternative Route was generally seen as the key priority by all stakeholders consulted.

5.3 Consultation Responses from Freight Service Providers

The key outputs from consultation with freight service providers are summarised as follows:

- Most freight service providers and operators are located in and around industrial land to the east and north east of the CBD, with a concentration of sites adjacent to or in proximity to the Shepparton Alternative Route.
- Many service providers service customers in this precinct and require access to major interstate freight routes to the north, east and toward Melbourne in the south.
- All service providers are heavy users of the Shepparton Alternative Route and stated that it is not fit for purpose which is impacting on freight movement and operating efficiency.
- All service providers require clarification regarding delivery dates for the proposed bypass.
- It was felt that the bypass needed to be complemented by:
  - A new well integrated east-west connection,
  - A supporting rail service
  - Strong long term major anchor tenants for the proposed GV Link.
- All service providers recognise the need to transition to HPFVs but road upgrades are required to enable this to occur.
- Road transport volumes will grow unless a viable and competitive rail service is provided.
- A number of operators were concerned that the completion of the Nagambie Bypass would attract larger transport operators (for e.g. Toll and Linfox) into Greater Shepparton at the expense of local service providers. This would increase the speed and rate of transition to HPFVs.
- Improved connections from Shepparton's west and the townships of Tatura/Kyabram via Mooroopna are important and will reduce the need to access Shepparton's CBD.
- Operators including Kreskas Bros (and generators such as Telford's) are continuing to investigate alternate more efficient vehicle combinations to include extended twin trailer combinations and longer extended trailers. In all circumstances, freight operators are seeking heavier and longer vehicle combinations.
- A review of road classifications is required.
- The B Double network should be expanded.
- Upgrades that would eliminate the need to travel from Greater Shepparton to Tocumwal for assembling multi-trailer (de/ recoupling) combinations would be welcome.
- Additional designated rest stops both north and south of Greater Shepparton and within Greater Shepparton are also required. Consideration for such stops should also accompany a review for potential trailer decoupling locations and supporting driver rest/change over facilities.

5.4 Strategic Overview of Issues and Opportunities

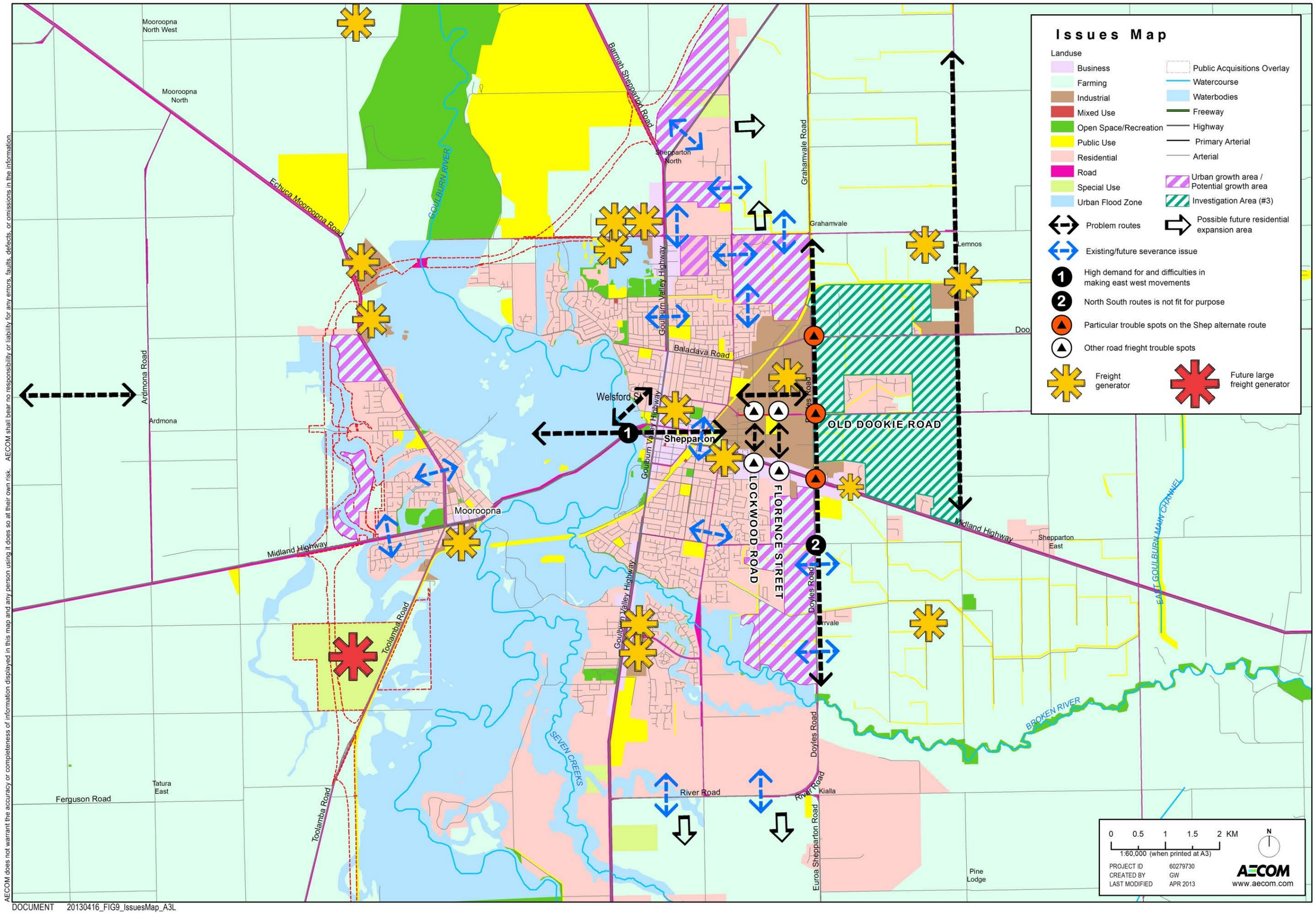
Stakeholders in Greater Shepparton and the surrounding regions were consulted on issues, opportunities, transport needs, future trends and requirements, potential infrastructure responses and priorities for investment.

The strategic issues are summarised as follows:

- Freight related land uses are currently located in an agglomeration cluster to the east/north east of Shepparton CBD as this area offers better access to the north, south and east. Existing infrastructure in this area is not fit for purpose.
- The future of GV Link and the proposed Shepparton Bypass are uncertain which discourages industry to relocate despite the issues associated with the existing Shepparton Alternative Route.
- The existing location of freight activity results in a high demand for east-west movement via the CBD. Existing arrangements for making this movement are not satisfactory for freight operators and generators.
- Future trends show a significant increase in heavy vehicle traffic generally travelling through Shepparton. This will increase congestion on the Shepparton Alternative Route worsening conditions in an area of the network that is not currently fit for purpose in terms of space for vehicles to manoeuvre and transit safely in conjunction with local traffic. Growing traffic levels on the Shepparton Alternative Route are also expected to increase the risk of serious accidents – particularly due to a conflict between heavy vehicles and local vehicles turning onto this road at slower speeds. As traffic volumes grow, there will also be increased environmental and amenity impacts for the community.
- Welsford St. (north of Fryers St) is currently a ***freight impacted road*** which provides a desired link for HVs accessing the northern section of the Goulburn Valley Highway from the Peter Ross Edwards Causeway (Midland Highway). The planning scheme amendment C92 proposes to recognise the role of this section of Welseford St. by rezoning it to RDZ1.

Figure 8 provides a summary of road transport network issues in Shepparton.

Figure 8: Issues map



The following is an overview of the strategic opportunities raised:

- The strategic transport value of Greater Shepparton needs to be better understood and highlighted for its importance toward Victorian and national 'value' chains – particularly toward improving road funding support and strengthening the case for major freight generators to consider basing a greater proportion of their operations in Greater Shepparton.
- **The urgent need for and importance of another east-west connection**.
- The importance of rail gauge standardisation and Goulburn Valley Rail Corridor in the Melbourne to Brisbane inland rail alignment to provide a future viable option to heavy vehicle freight.
- Understanding that a number of major freight users are currently undertaking a network review toward determining the role and significance that Shepparton plays as part of their national freight consolidation and delivery task. These major users being Unilever, SPC Ardmona and Tatura Milk/Bega Cheese.
- All major freight users anticipate growth in the immediate future; although long-term will depend on the infrastructure investment that supports freight productivity.
- This study is timely and relevant towards a clear recognition of the manner and profile of freight within and via the region – more particularly the significance of the region toward supporting the eastern Australian freight task. For this reason, carefully planned road infrastructure spending is likely to have a strong economic multiplier effect on the region and its ability to attract new business development opportunities.
- Improve the interface with state agencies such as the Department of Transport and VicRoads that provides:
    - Strong links between all levels of Government for effective road planning, infrastructure funding and supporting the economic future of the region
    - Gaining an immediate understanding of State road planning initiatives and integration with the strategic road network improving connectivity to markets in New South Wales, Queensland and South Australia
    - Understanding transport profiles using Greater Shepparton as an important hub and interstate freight network conduit for delivery north, south and east to all markets on Australia's eastern seaboard
    - Understanding that major freight generators are considering the role that Shepparton plays as part of their national network – with a preference toward increasing the level of activity within Shepparton provided good heavy vehicle access and freight links become available
    - Development of a communication strategy that will encourage constructive community and relevant freight industry input and support.

6.0 Development of the Network Strategy

6.1 Key Corridors Links and Nodes

The Network Strategy has been informed by trends along with strategic issues and opportunities identified through the review and consultation process. The network comprises of key corridor links (road and rail), and nodes (terminals, major land uses) as shown in Table 10.

Table 10 Key Corridors, Links and Nodes

Key Links	Road and Rail Corridors
North - south	- Shepparton Bypass - Shepparton Alternative Route (Doyles Road/Grahamvale Road) - Goulburn Valley Highway (Wyndham Street, Main Street) - Central Ave /Lemnos North Road - Murchison-Mooroopna Road/Toolamba Rd - Tocumwal Rail Corridor
East - west	- Midland Highway/Benalla Road High Street/Shepparton-Mooroopna (Peter Ross Edwards) Causeway - Welsford St / Knight St CBD bypass - New Dookie Road/Balaclava Road - Ford Road/Wanganui Road (Future North Shepparton Arterial (East-West Link)) - Congupna East Road - Bowey Road – Tallygaroopna West – Bunbartha Road
North west of the Central Business District	- Shepparton-Barmah Road
North east of the Central Business District	- Katamatite - Shepparton Road
South of the Central Business District	- Goulburn Valley Highway - Euroa-Arcadia Road connecting Shepparton- Euroa Main Road - Murchison Violet Town Road - connect Goulburn Valley Highway to Tatura-Murchison Road and Murchison-Mooroopna Road
Key Nodes	**Attractors and Generators**
Rail Intermodal Terminals	- Mooroopna Rail Siding (no longer in service) - GV Link
Major Land Uses	- East Shepparton Industrial Area - Lemnos Industrial Precincts - Shepparton Airport - Dobson Estate - Shepparton North Growth Corridor - Shepparton South Growth Corridor - Shepparton South East Growth Corridor - Irrigated agriculture, and dry land grazing and cropping is rural areas

6.2 Network Strategies

The network strategies are aimed at improving east-west and north-south connections to assist Greater Shepparton in its role as an important and expanding freight hub.

As outlined in this report, industrial land use and transport planning for Shepparton is premised on the full development of GV Link as a major freight and logistics hub and the infrastructure that is required to support GV Link's successful development. The network strategy has therefore been developed to consider a full build out longer-term scenario, whilst identifying interim measures in the short term that are required to support the Greater Shepparton network prior to this.

The priority actions are:

- Roads:
  - Determine a road user hierarchy that supports a fully developed GV Link so that investment occurs in a focused way that supports strategic objectives.
  - Identify a package of road upgrades and new linkages for a scenario where GV Link is partially/fully developed and where the GV Link is not developed. This will allow road upgrades to be identified that support both scenarios with the long term aspiration being the provision of a road network that supports the full development of GV Link.
  - Identify routes that are suitable for high productivity vehicles (including potentially trialling B-triples) so that there is a clear strategy for managing movement by these vehicles.
  - Deliver truck calming measures where appropriate once satisfactory arrangements for trucks have been provided on preferred routes. This will allow amenity benefits to be obtained throughout Shepparton in response to the delivery of new and improved transport connections for freight.
- Rail:
  - Investigate ways in which rail can support local services as part of their logistics chain which will enable the potential for rail to be established and appropriate responses to be identified.
  - Continue to lobby for the Melbourne - Brisbane inland route via Shepparton.
- Land use:
  - Unlock the potential for the development of GV Link and provide incentives that encourage freight and logistics industry to (re)locate to this site rather than to other sites within Shepparton.

Much of the strategic thinking by Greater Shepparton City Council is premised on the full development of GV Link as a major freight and logistics hub and the infrastructure that is required to bring that about.

6.2.1 Short Term Network Strategy Responses

In the short-term there is a need to ensure that the transport network supports the location of existing industrial land uses. As discussed earlier, the majority (approximately 70-75%) of industrial land uses are located in the Shepparton East Industrial Precinct, whereas only 10-15% is located in other industrial precincts that are within the Shepparton area. As such, the road network needs to support transport demand to key locations in the east and north east.

Figure 9 provides an overview of the transport framework for Shepparton. In order of priority the short term strategy responses are:

1) Upgrade the existing Shepparton Alternative Route (Doyles Road/Grahamvale Road) and its intersections to increase capacity and improve circulation.
2) Upgrade Welsford and Knight Streets between Fryers St and Goulburn Valley Highway to accommodate freight movements until the Shepparton Freeway Bypass (Stage 1) is operational.
3) Reconstruct Old Dookie Road between Shepparton Alternative Route and Drummond Road to B-Double (PBS class 2) standard.
4) Upgrade the Lemnos North Rd/ Central Ave Link between the Midland Hwy and the Katamatite - Shepparton Main Rd Road to B-Double (PBS class 2) standard.

5) Realign Goulburn Valley Highway and Shepparton Alternative Route intersection to give priority to Shepparton Alternative Route traffic.

6) Upgrade Merrigum-Ardmona Road – between Byrneside-Kyabram Road and Ardmona Road.

7) North Eastern – east west link.

   a) Upgrade the Tallygaroopna West-Bunbartha Road to B-Double (PBS class 2) standard.

   b) Upgrade Victoria Road and Katandra Main Road between Goulburn Valley Highway and Labuan Road.

8) In conjunction with Shepparton Freeway Bypass (stage 1) establish the North Shepparton Arterial – East-West Link by either:

   a) Reclassification and reconstruction of Wanganui and Ford Road to the Shepparton Alternative Route to arterial road standard, with connections at Goulburn Valley Highway.
   b) Reserving an Alternative east – west route north of Wanganui Road, with connections at Goulburn Valley Highway.

9) If the Shepparton Bypass is unable to be implemented over its full length, **investigate options** and identify and deliver a preferred alignment for a new South Shepparton Arterial East-West road link via either:

   a) A southern link from Goulburn Valley Highway to Doyles Road/River Road intersection.

   b) As an alternative southern link consider an upgrade to the Arcadia Rd section that joins Euroa Arcadia Road with the Shepparton Alternative Route.

10) Implement truck traffic calming measures along the Goulburn Valley Highway, Midland Highway, Dookie Shepparton Road and elsewhere in central Shepparton. Truck calming will involve signage, road rules, surface treatments and road design that passively or actively discourage truck movement along specified roads.

11) Implement interface management measures between freight transport routes and sensitive land uses for abutting residential expansion areas. Such measures will include adequate sound/ visual buffers and safe access onto and across freight routes.

12) Identify a trailer decoupling site for trucks. This should be located on the Shepparton Alternative Route in close proximity to freight activity. If such a facility is to be provided on the Alternative Route then it will be necessary to confirm that such locations can accommodate B-Triples either now or into the future. Should this not be feasible, then a suitable decoupling site will be required on designated road sections to the north and south of the CBD.

6.2.2 Longer Term Network Strategy Responses

In order of priority the longer term strategy responses are:

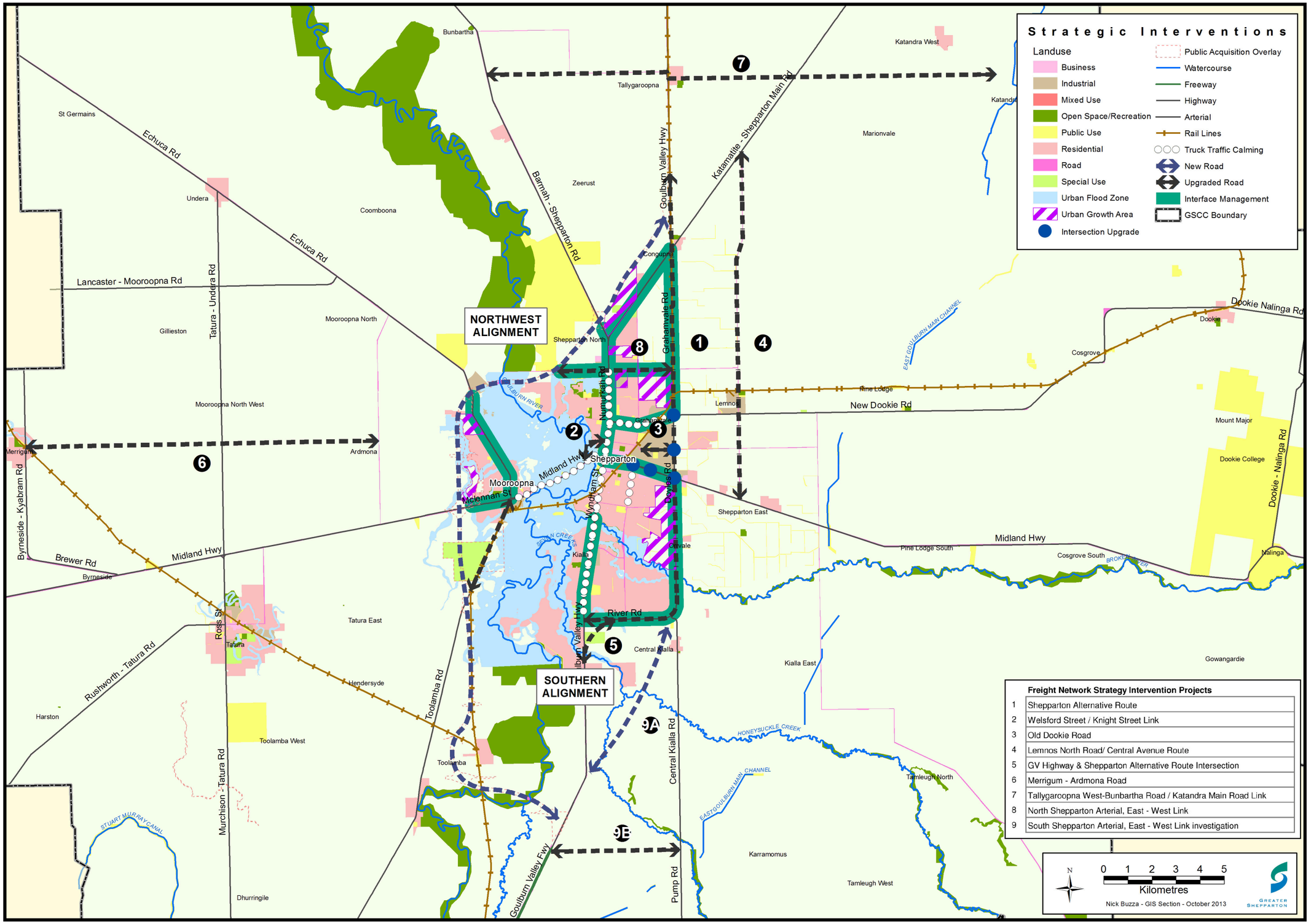
13) Deliver the Shepparton Freeway Bypass to support GV Link

14) Deliver a rail freight siding to support GV Link

15) Provide traffic calming to the Goulburn Valley Highway, the Midland Highway and other local roads within the urban areas in order to improve the amenity for the commercial and residential areas.

16) Review the on-going role and purpose of the Shepparton Alternative Route.

Figure 9 provides an overview of the transport framework for Shepparton encompassing short and longer term Strategic Intervention projects.


Strategic Interventions
Landuse
Business
Industrial
Mixed Use
Open Space/Recreation
Public Use
Residential
Road
Special Use
Urban Flood Zone
Urban Growth Area
Intersection Upgrade
Public Acquisition Overlay
Watercourse
Freeway
Highway
Arterial
Rail Lines
Truck Traffic Calming
New Road
Upgraded Road
Interface Management
GSCC Boundary
NORTHWEST ALIGNMENT
SOUTHERN ALIGNMENT
Bunbartha
Tallygaroopna
Katandra West
Marionvale
St Germains
Echuca Rd
Undera
Coomboona
Zeerust
Barmah - Shepparton Rd
Goulburn Valley Hwy
Katamatite - Shepparton Main Rd
Congupna
Lancaster - Mooroopna Rd
Tatura - Undera Rd
Gillieston
Mooroopna North
Shepparton North
Grahamvale Rd
EAST GOULBURN MAIN CHANNEL
Dookie Nalinga Rd
Dookie
Cosgrove
Pine Lodge
Lemnos
New Dookie Rd
GOULBURN RIVER
Nunnuckah Rd
Grahamvale
Mount Major
Mooroopna North West
Merrigum
Ardmona
Shepparton
Midland Hwy
Mooroopna
McLennan St
Wyndham St
Doyles Rd
Shepparton East
Dookie College
Byrneside - Kyabram Rd
Brewer Rd
Byrneside
Pine Lodge South
Cosgrove South
Nalinga
Dookie - Nalinga Rd
SEVEN CREEKS
Kialla
Orrvale
BROKEN RIVER
River Rd
Ross St
Tatura East
Tatura
Central Kialla
Kialla East
Gowangardie
Rushworth - Tatura Rd
Hendersyde
Harston
Toolamba Rd
Toolamba West
Toolamba
Murchison - Tatura Rd
Central Kialla Rd
HONEYSUCKLE CREEK
Tamleugh North
STUART MURRAY CANAL
EAST GOULBURN MAIN CHANNEL
Karramomus
Tamleugh West
Dhurringile
Goulburn Valley Fwy
Pump Rd
Freight Network Strategy Intervention Projects
1 Shepparton Alternative Route
2 Welsford Street / Knight Street Link
3 Old Dookie Road
4 Lemnos North Road/ Central Avenue Route
5 GV Highway & Shepparton Alternative Route Intersection
6 Merrigum - Ardmona Road
7 Tallygaroopna West-Bunbartha Road / Katandra Main Road Link
8 North Shepparton Arterial, East - West Link
9 South Shepparton Arterial, East - West Link investigation
N
0 1 2 3 4 5
Kilometres
Nick Buzza - GIS Section - October 2013
GREATER SHEPPARTON

6.3 Testing of the Strategy against Transport Integration Act Principles

The Department of Transport 'Transport Outcomes Framework' has been applied as a multi-criteria assessment of the proposed network strategy. The Transport Integration Act 2010 (TIA) provides a framework for the provision of an integrated and sustainable transport system in Victoria. This includes a set of decision making principles which are based on triple bottom line objectives – that is, economic, social and environmental.

Changes to the transport network arising from this study will have impacts across economic, social and environmental considerations. Therefore, developing a freight strategy directly engages with the TIA's emphasis on considering:

1) All road users

2) The relationship between transport and land use

Areas where the performance of the Greater Shepparton Freight Network Strategy against the objectives of the TIA is considered to be problematic are summarised in Table 11.

Table 11 TIA Objectives against freight network performance issues

Relevant TIA Objective	Current Greater Shepparton Freight Network performance issues
Social and economic inclusion	- Heavy vehicle traffic travelling through Shepparton with congestion on the Shepparton Alternative Route limiting access to some potential users - The Shepparton Alternative Route is not designed for its current level of activity and type of use causing severance and amenity issues for the local community.
Economic prosperity	- Traffic congestion reduces economic productivity through lost time, journey variability and reduced quality of service - The growth of Greater Shepparton is having an increasing impact on the efficiency of freight operations within the area. - Greater Shepparton recognised as a regional hub by the freight industry but the network performance issues are having negative impacts on productivity - Infrastructure development and maintenance is costly
Environmental sustainability	- High use of heavy vehicles due to the lack of an attractive and viable rail freight option. - Emissions/noise impacts generally and in those areas where there are network pinch points - Noise impact of heavy goods vehicles during night operations.

Integration of transport and land use	- Potential for exacerbation of conflicts between freight land uses and other land uses
	  - People don't want to live in close proximity to freight activity
	  - Traders in the CBD view trucks as having a negative impact on ambience

Efficiency, coordination and reliability	- Increasing demand for access by B-Doubles and B-Triples and other potential forms of High Productivity Freight Vehicles. - Increase consolidation of smaller fleet vehicles into High Productivity Freight Vehicles - Traffic levels are negatively impacting on efficiency and reliability - Overall regional competitiveness is highly dependent on an effective and well-designed integrated road freight network

Relevant TIA Objective	Current Greater Shepparton Freight Network performance issues
Safety, health and wellbeing	- The Shepparton Alternative route is not designed for its current level of activity and type of use increasing issues related to safety (particularly at schools and other locations where there is significant pedestrian activity)

An assessment of how this study addresses the TIA principals is provided in Table 12.

Table 12 Summary of this strategy's approach to the Transport Integration Act decision making principles

TIA Principles	How this framework plan addresses the principle
Integrated decision-making	- Consultation with 15 major freight operators, manufacturers, industry stakeholders and Project Steering Committee (including DOT, VicRoads, DPCD and the Greater Shepparton Council).
Triple bottom line assessment	- Strategic assessment of economic, social and environmental impacts. - Quantification of costs, benefits and externalities will occur externally to this study at the individual project level.
Equity between people	- The scope of project considers the access of all commercial and private vehicles to Greater Shepparton by all persons including rural, interstate and international visitors. - The study identifies actions designed to improve future quality of life without undue future burden.
Transport system user perspective	- The study proposes actions to enhance user experience.
Precautionary principle	- The study takes a precautionary approach by emphasising the need for increased sustainability of the transport and land use system. - Project development will include application of precautionary principles.
Stakeholder engagement and community participation	- Consultation with 15 major freight operators, manufacturers and industry stakeholders and Project Steering Committee (including DOT, VicRoads, DPCD and the Greater Shepparton Council).
Transparency	- Strategy sources are appropriately cited and justification is articulated, allowing for independent review and critique.

6.4 Framework Plan - Next Step Actions

The network strategies provide a framework for the further planning work that will be required. It is recommended that more detailed technical work is completed on the feasibility of the network options identified. This will involve:

- Detailed modelling (land-use and transport demand) to generate an evidence base
- Engineering feasibility to inform robust costing
- Cost and benefits analysis
- Preliminary and full business case

***Further investigation work is required to support the Strategic Intervention infrastructure projects that will meet the transport needs of* Greater Shepparton for the foreseeable future. The following actions provide a framework plan to achieve this.**

Project	Action
Short Term (1 – 5 years)	
Road User Hierarchy review	Review the road classification of the strategic freight network with consideration given to the Hume Region Planning for Freight (HRPF) report recommendations. Initiate discussions with VicRoads to identify those local roads that are candidates for reclassification to an Arterial road.
Review the B-Double (PBS class 2) approved network	Undertake the review in accordance with the HRPF outcomes, NHVR assessment process and consultation with neighbouring councils.
Land Use Planning – amendments and investigations	Initiate changes to the planning scheme that amends clauses in the MSS and rezones land in response to the Greater Shepparton Industrial Land Review. Undertake the detailed analysis required in Investigation Area 4 of the Housing Strategy to guide future land use considerations and minimise land use interface conflicts with freight routes.
Shepparton Alternative Route capacity upgrade	Establish an Acquisition Overlay to accommodate widening and reconstruction of the route to provide increased safety and capacity for freight movements. Accommodate VicRoads acquisition requirements in the development of the North-East and South-East Growth Corridor plans. Support VicRoads in advocating for funding the widening and upgrade of the Shepparton Alternative Route (**strategic interventions 1 & 5**).
Old Dookie Road – capacity upgrade	Reconstruct and widen pavement between Shepparton Alternative route and Drummond Road to improve freight access to large abutting manufacturing and warehouse industries.
Welsford Street Route - capacity upgrade	Reconstruct Welsford St. and Knight St between Fryers St and GV Highway to provide safe freight capacity until the construction of the Shepparton Freeway Bypass.
Arterial Road Intersection upgrades	Advocate for upgrading the intersections detailed in 6.2.1 to provide HPV access to local road network that serves key manufacturers.
Lemnos North Road/ Central Ave Link	Upgrade links to remove impediments identified in the Strategic Freight Route assessment in the Hume
Funding Plan for delivery of the Strategic Intervention projects.	Develop a plan to advocate for funding to deliver the strategic freight network upgrades contained in section 6.2. Particular focus to be given to the priority regional projects - Old Dookie Road, Welsford St. and Lemnos Nth/ Central Ave Links (**strategic interventions 3,2 & 4**)
North Shepparton Arterial – East-West Link	Liaise with VicRoads to get a commitment to finalising the Feasibility Study to establish the alignment for the east-west link between the Shepparton Freeway Bypass and Shepparton Alternative Route (**strategic intervention 8**). Prepare concept plans to enable the reservation to be secured in advance of Shepparton Freeway Bypass funding commitment.
Shepparton Freeway Bypass	Continue to advocate for funding to deliver the complete Bypass between Acadia and Congupna.

Short Term (1 to 5 years) continued	
Shepparton Freeway Bypass, North Shepparton East-West Link and Shepparton Alternative Route freight	Prepare a combined Business Case for securing and delivering the east-west freight route that takes Heavy Vehicles around the Shepparton CBD. This shall support both the Freight Study and Shepparton CBD Strategy objectives**.**
Southern East-West link	Undertake a feasibility study identify options for a new link of highway standard connecting Goulburn Valley Highway and Shepparton Alternative Route (near the intersection of Doyles and River Road) if the southern stage of the Shepparton Bypass is unable to be delivered.
GV Link **Stage 1 development** **Rail siding**	Secure industry and government support to deliver stage 1. Adopt the GV Link Rail siding design and specification prepared by GHD Pty Ltd, October 2011 and March 2012
Melbourne to Brisbane Inland Rail	Continue to advocate for the inland route through Shepparton This should include the preparation of a business case that sets out clearly the reasons for the link to travel though Shepparton and its regional economic benefits.

Medium Term 6 to 9 years	
Freight network review	Evaluate the benefits of the freight route projects constructed over the previous 5 years. Reassess the priorities planned freight projects and funding opportunities.
Reconstruction of Strategic Freight Routes	Deliver upgrades to roads for **strategic intervention 4, 6 and 7**.
Shepparton Alternative Route	Review the role of the route and its ability to maintain the level of service to safely meet the freight capacity demands.
GV Link	Monitor the success of the development and implications for the future staged development of the proposed Shepparton Bypass. Undertake a planning study to assess occupation rates, barriers to success, commercial drivers and other relevant operational matters.
Shepparton CBD Strategy	Introduce HV traffic calming to urban areas in support of strategy responses 1 to 4. Review the effects on traffic conditions and retail amenity as a result of short term actions being completed.

Long Term (10 years plus)	
GV Link	Review the success of GV Link and the operational barriers to achieve the outcomes desired.
Freight Network Review	Review heavy vehicle traffic flows in Shepparton following the provision of new freight infrastructure and identify mitigation measures and strategies to address any additional issues.

Appendix A

Freight Operators Consulted

Appendix A Freight Operators Consulted

Company Name	Freight Type	Contact
Visy Logistics	Generator	Travis Gilbert
Campbell's Soup	Generator	Sam Damianopolous
AMCOR	Generator	Tony Gillberg
Scott's Transport Industries	Service Provider	Colin Robinson
Geoffrey Thompson Holdings Ltd	Generator	Gary Parker
Tatura Milk Industries/ Bega Group	Generator	Peter Hill
Telford's Building Systems	Generator	Andrew Telford
Pental Ltd	Generator	Cosi Papallo
Gattuso Transport	Service Provider	Frank Gattuso
Keating Freight Lines	Service Provider	Chris Keating
Fred's Transport	Service Provider	Danny Borg
Leocata Transport	Service Provider	Joe Leocata
Hicks Hunter Transport	Service Provider	Brian Hicks
SPC Ardmona	Generator	Mike McCormack
Unilever Australasia	Generator	Sean Fahey
S Sali & Sons Pty Ltd	Service Provider	Sam Sali
Kreskas Brothers Transport	Service Provider	Les Kreskas

DISCLAIMER: The data provided in section 5.2 was recorded by AECOM during interviews with company representatives. Each company were forwarded a copy of their interview summary to review and verify the content. Greater Shepparton City Council cannot guarantee the accuracy of the information provided in section 5.2 of this report.

Appendix B

Definition of Terms

Appendix B Definition of Terms

TEU – Twenty-foot equivalent unit: A measure used for capacity in container transportation (6.1 long x 2.49m height).

FEU - Forty-foot equivalent unit – a shipping container equivalent to 2 standard containers

HV – Heavy Vehicles

HPFV - High Productivity Freight Vehicle: Large vehicles that can move larger loads thereby allowing goods to be moved with fewer vehicles.

PBS - Performance Based Standard for heavy vehicles www.nhvr.gov.au

Supply Chain - a system of organisations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer.

B-Double – A prime mover hauling two semi-trailers where the second semi is a mounted B-double..

AB Double - 1 x shorter 'A' trailer plus longer 'B' trailer plus 2 axle dolley plus 1 x full length trailer.

Road Trains - 2 x full length semi-trailers behind one prime mover.

B-Triple – A triple axel truck (2 x shorter 'A' trailers plus 1 longer 'B' trailer).

IA - Infrastructure Australia

DOT – Department of Transport

G.V. Highway – Goulburn Valley Highway

NHVR - National Heavy Vehicle Regulator. www.nhvr.gov.au

Mooroopna terminal – 2012 before closure.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RS.07

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AECOM
Level 9, 8 Exhibition Street
Melbourne Vic 3000
T +61 3 9653 1234
www.aecom.com