WAGA
Western Alliance for Greenhouse Action

LEADWEST
Leadership for the west

Regional Development
Regional Development Australia and Regional Development Victoria
WESTERN MELBOURNE

LOW CARBON WEST

Transporting People and Freight

Sector Report

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1. INTRODUCTION

Low Carbon West is a transitional strategy for the region encompassed by the municipalities in the Western Alliance for Greenhouse Action (WAGA).

The strategy will support the growth of this vibrant and diverse region while limiting the increase in greenhouse gas (GHG) emissions associated with that growth. Action to reduce emissions is necessary everywhere, but the opportunity and need for action are particularly clear in the WAGA region.

This is the fastest growing region in Australia, and its councils and stakeholders are well placed to demonstrate national leadership in responding to the threat of climate change. There is an opportunity to combine continued economic growth with improved carbon productivity; that is, reducing the level of carbon emitted for each unit of output across the region. Transitioning to a low carbon economy will provide a new engine for growth, creating jobs and investment opportunities.

Low Carbon West has been developed by WAGA with project partners LeadWest and Regional Development Australia (RDA) Western Melbourne. AECOM and Arup were jointly commissioned as the project consultants and have the led the consultation, analysis and strategy development. Over one hundred people provided feedback and input to inform the Low Carbon West plan.

The overarching strategy establishes a vision for a Low Carbon West. It presents a current and future business as usual (BAU) emissions baseline and establishes priority actions to reduce the region's emissions against this baseline. It also sets out a clear implementation plan for identified sectors, including an approach for monitoring the success of the plan over time. It is hoped that the regional focus for Low Carbon West will facilitate collaboration and knowledge sharing between businesses, governments, and other stakeholders and act as a catalyst for direct regional and local action to reduce GHG emissions.

The strategy encompasses four sub-strategies for business and industry, urban growth and development, transporting people and freight and communities. This report covers the transporting people and freight.

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This report covers the transporting people and freight.

Section 2.0 describes the current patterns of development in the WAGA region, as well as the baseline and projected emissions.

Section 3.0 outlines the initiatives already underway to reduce emissions.

Section 4.0 provides an overview of the impact of proposed new actions on emissions in 2020.

Section 5.0 describes actions in detail.

Section 6.0 outlines how the sector actions can be implemented.

Section 7.0 summarises the requirements for monitoring progress towards achieving Low Carbon West.

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"The Western Melbourne Transport Strategy, prepared by the Western Transport Alliance, provides a vision for an integrated transport system to support the west's rapid growth and ensure economic resilience for the region's future."
(Western Transport Strategy – 2012-2030)

2. TRANSPORT AND FREIGHT SECTOR CONTEXT

2.1. Existing transport conditions and challenges

2.1.1 Land Use and geography

Due to an abundance of land, the WAGA region is a strategically suitable location for uses that are land-hungry such as airports (Tullamarine, Essendon and Avalon), ports (Port of Melbourne), rail terminals and freight and logistics warehousing and distribution centres. This means that residents of the region have easy access to nodes of international trade (i.e. airports and maritime ports).

The region also has good access to Victoria's major regional cities of Geelong, Ballarat and Bendigo, and to interstate transport corridors such as the Western Highway to Adelaide and the Hume and Newell corridors to the Murray-Darling food bowl, Sydney and Queensland.

The Region has a number of suburbs that are separated from other residential areas by industrial or rural precincts. These include Werribee/Hoppers Crossing/Tarneit, Point Cook/Laverton and Melton. These areas often rely on one major arterial road and rail route for access. They also typically have poor public transport provision and declared poor quality main roads.

The main employers in the WAGA region are manufacturing and freight (logistics / warehousing sectors). There are insufficient jobs in the WAGA region for the population. Residents travel outside the region for work, meaning that good transport options for commuters are important. However, the Region is relatively close to the CBD compared to other growth areas, meaning that it is well placed to support jobs growth in the CBD.

2.1.2 Population, demographics and growth

The demographic forecast for the Region shows high growth in the 60+ age brackets, coupled with strong population growth overall. The projection indicates the WAGA region community is expected to have a balanced demographic profile, with similar populations in most of age brackets. Population growth is the major driver of urban expansion. The average household size over the same period is expected to remain largely stable.

Population growth is leading to major increases in traffic volumes across the Region. VicRoads data shows that the volume of:

- Overall traffic and traffic on arterial roads is growing at 4-8 % a year
- Total truck traffic and traffic on freeways is growing twice as fast, at 7-16 % a year
- Truck volumes on arterial roads are growing much faster than truck volumes on freeways (40-55 % a year on arterials compared to 5-10 % a year on freeways)

These trends show the effect of rapid urban growth on increasing traffic volumes. The Western Transport Strategy states that over the next few decades the Western Region is expected to be the major population and industrial growth region of Melbourne. By 2026, it will have a population similar to Adelaide, and will need activity centres, transport infrastructure and services commensurate with an urban area of this size.

2.1.3 Socioeconomic trends

The existing transport conditions in the WAGA region result in high dependence on personal mobility and associated higher costs for households with a low ability to afford the expense. Land use and transport initiatives that can help reduce dependency on private transport include provision of:

- A wider choice of cost-effective and efficient transport modes, especially for journeys to work
- A higher share of employment in local activity centres and industrial precincts
- More diversity in employment opportunity locally
- More social, educational and community infrastructure within distances that can be walked and cycled
- Increased centralisation of key services in areas that are highly accessible across the Region.

2.2. The Western Melbourne Transport Strategy (2012-2030)

The region has a transport plan that outlines the strategic direction for the Region's transport and provides a context for future transport-related projects. The vision outlined in the Western Melbourne Transport Strategy (2012-2030) is to create:

A liveable, productive and prosperous community, whose nationally significant economic and sustainable growth capabilities are strengthened and supported by its integrated transport system.

To support this vision, six strategic objectives are set out in the plan. They are:

- Promote opportunities for transport to support sustainable economic prosperity for the region
- Sustain and develop the region's competitive advantages through the design of the transport network
- Increase accessibility to employment opportunities in the region to facilitate better management of travel demand
- Reduce the adverse impacts from transport operations on the region
- Provide improved transport alternatives to address changing transport demands resulting from changes in land use and demographics
- Develop an integrated freight system for the region

As part of the development of the Western Melbourne Transport Strategy, a suite of projects consistent with these strategic objectives were identified in conjunction with stakeholders, with an emphasis on network-level project identification. The projects all contribute to the development of a better integrated transport and land use system. Many of the projects are suitable for a range of innovative funding mechanisms including public private partnerships, tax increment financing, land development, transit-oriented development, development infrastructure charges and direct user charging.

Low Carbon West has built on the work undertaken for the Western Transport Strategy, and used data from the Victorian Integrated Transport Model (VITM) 2012 transport emissions data to estimate the regional transport related emissions and to consider actions that would reduce these over time. It is clear that the WAGA region is an important hub for freight and logistics, with around half of the overall transport emissions for the region coming from freight. Given that these emissions are controlled by freight and logistics business (i.e. they are the main actors that can drive change), freight emissions are also reported within the Business and Industry sector report.

Figure 1 Figure 1: Western Melbourne's key transport infrastructure. Source: Western Melbourne Transport Strategy (2012-2030).

CS Case Study: Regional Rail Link

2016 will see the completion of Regional Rail Link, significantly increasing and improving Melbourne's rail network with 90km of new track and dedicated regional lines from West Werribee Junction to Deer Park, then along the existing rail corridor from Sunshine to Southern Cross Station. Benefits from the project include removing major bottlenecks that cause train delays by untangling regional and metropolitan train services as they travel through Melbourne's west into the heart of the city. This improves the reliability of train services and increases the number of trains running at peak periods.

When complete, Regional Rail Link will provide capacity for an extra 23 metropolitan and ten regional services during each morning and evening peak period, enabling more Victorians to use sustainable public transport. The additional transport capacity created by Regional Rail Link will be equivalent to taking about 45,000 cars off the road during peak periods. This is estimated to save the Victorian economy $300 million per year and provide a real investment boost for the WAGA region by making it more attractive to businesses and employees.

The extra passenger capacity created by Regional Rail Link will save around 14,000 tonnes of GHG emissions per year. Improved public transport services, transport nodes and associated facilities to encourage cycling should help to create momentum in reducing emissions from private cars.

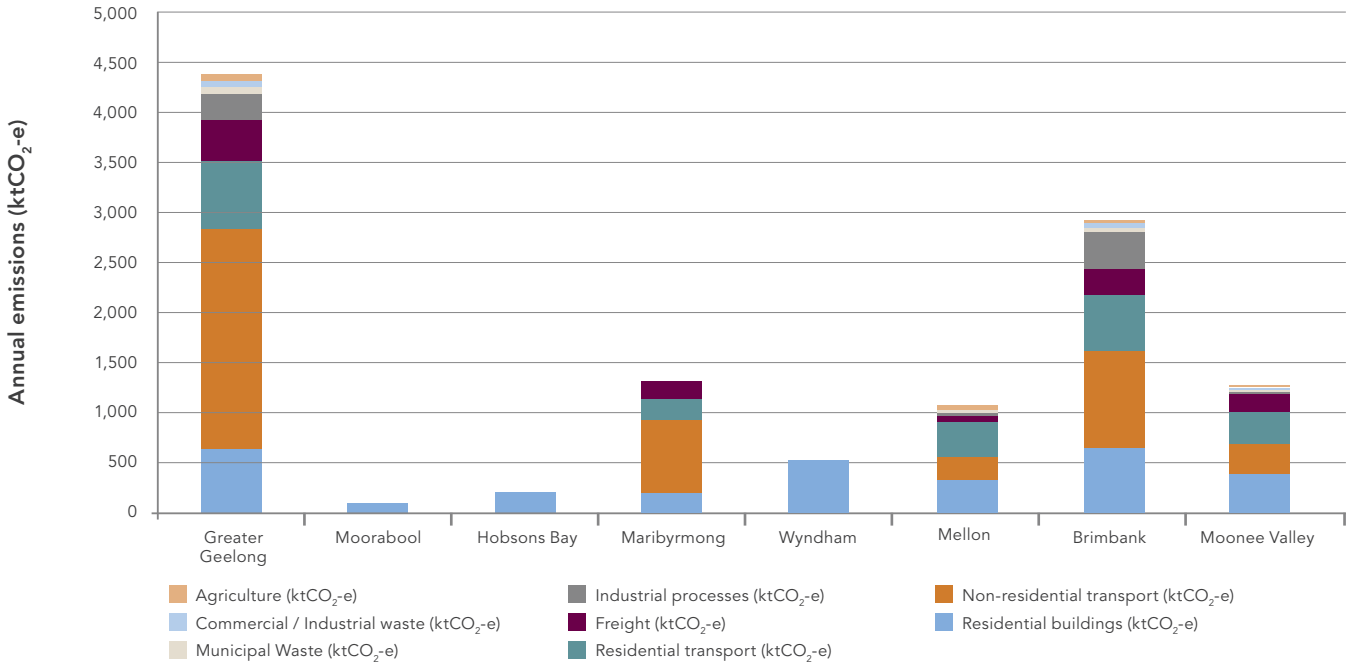
2.3. Understanding of sector emissions

The Low Carbon West Regional Emissions Baseline Report provides an overview of the baseline (2012) and projected (2020) emissions for the region and contains details on the source data and methodologies used.

The baseline report categorises the regional GHG emissions into eight categories. Two of these categories are residential transport and freight. These relate directly to the transport sector in the WAGA region and therefore underpin this sector strategy.

The total emissions attributed to transporting people and freight in 2012 is estimated to be around 4,490 ktCO2-e, or 26% of the region's overall emissions. Figure 2 shows the transport-related emissions in the context of the broader regional emissions.

Figure 2 2012 baseline emissions showing the contribution from residential transport and freight.



2.3.1 Residential transport

Residential transport emissions comprise scope 1 emissions from the combustion of fuel by cars, buses and diesel trains, and scope 2 emissions from electricity used to power trams and electric trains. Emissions were extracted from the VITM database for all vehicle types except for heavy vehicles, which are included in freight (see section 2.3.2).

Emissions were projected forward to 2020 using population growth. Assuming vehicle efficiencies and grid emission factors do not change significantly within the next decade, residential transport emissions are anticipated to increase by 20%. Figure 4 shows that the majority of emissions in the region are due to cars (94%), with only a small contribution from public transport (6%). There is therefore a significant opportunity to reduce transport emissions by shifting movements from cars to public transport.

Figure 3 2012 baseline emissions and 2020 projections for each LGA from residential transport

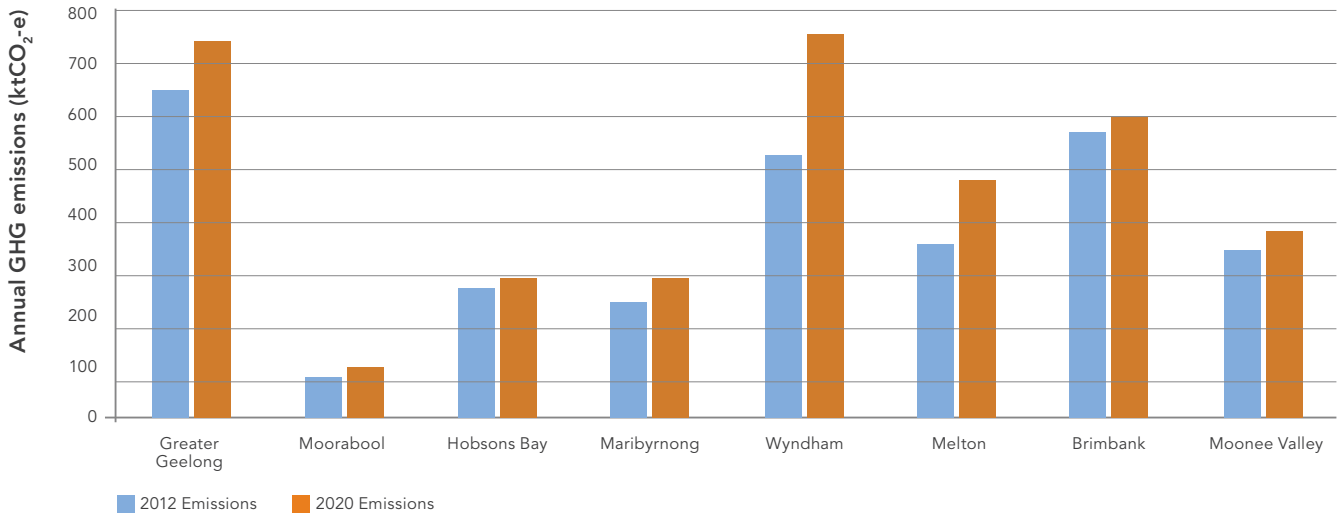
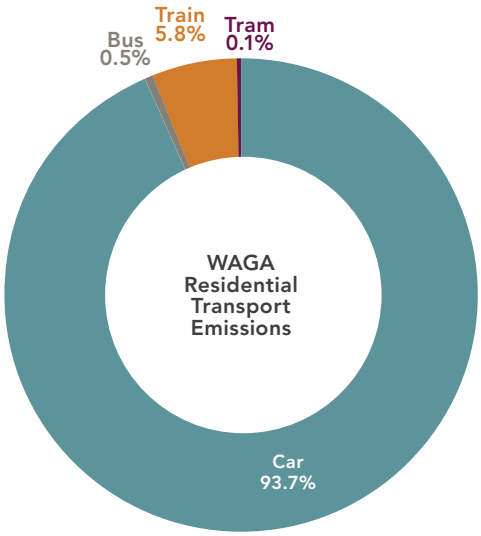


Figure 4 2012 baseline emissions and 2020 projections for each LGA from residential transport



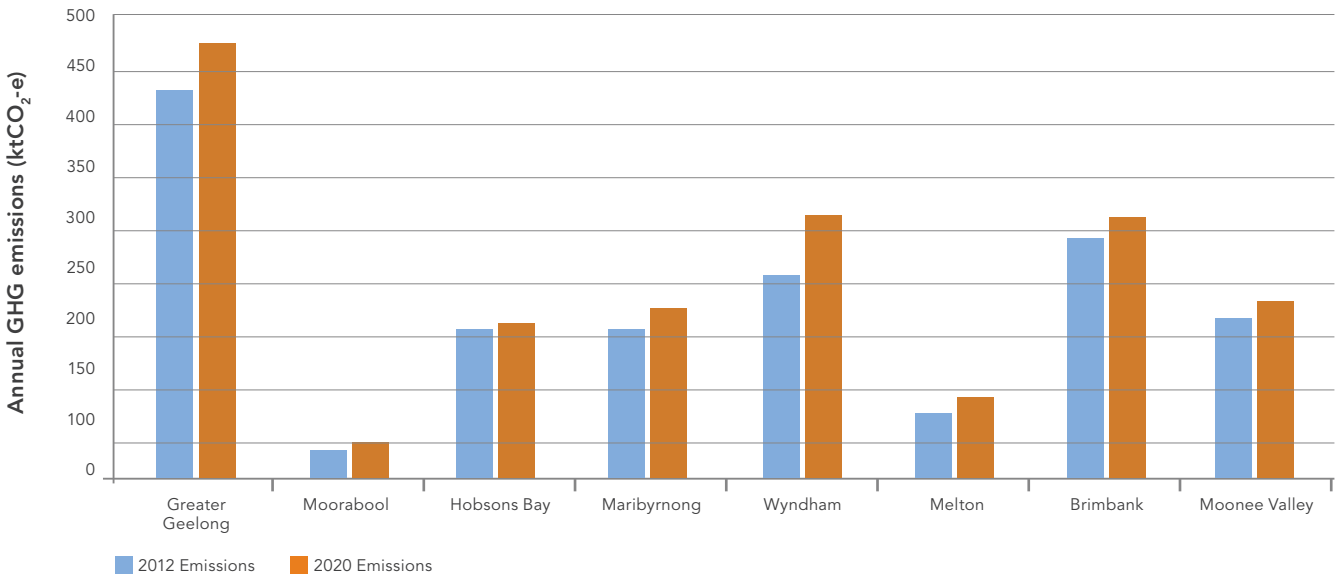
2.3.2 Freight

Scope 1 emissions from the combustion of fuel by heavy vehicles account for around 1,500 ktCO2-e of GHG emissions in the WAGA region annually in 2012. This accounts for road-based freight. Other forms of freight (e.g. rail) were excluded, as road freight accounts for 72% of all domestic freight movement in Victoria, according to 2007-08 data from the Bureau of Infrastructure, Transport and Regional Economics.

Road-based freight also has a higher carbon intensity compared to other transport modes, so should be the focus for action to reduce emissions.

Freight emissions are apportioned to each local government area in line with local jobs. Assuming the efficiency of heavy road vehicles does not change significantly over the next decade, freight emissions are projected to increase by 14% by 2020, based on expected growth in jobs.

Figure 5 2012 baseline emissions and 2020 projections for each LGA from road-based freight



CS Case Study: Reducing emissions from freight – Linfox, Greenfox

Linfox is the largest privately owned supply chain solutions company in the Asia Pacific region. The company employs around 15,000 people, owns 1.8 million square metres of warehousing and operates nearly 5,000 vehicles across 11 countries. The business is headquartered in Moonee Valley.

Linfox has committed to improving carbon efficiency and reducing waste across its logistics operations. It has already reduced its rate of carbon emissions by 45% across all its operations since 2007 and is well positioned to achieve its 50% by 2015 reduction target. Linfox's emissions come mainly from diesel, with this constituting 80% of its emissions, followed by electricity at 13%.

Sources:
http://pdf.aigroup.asn.au/environment/GreenFox_Sust_transport.pdf
http://eex.gov.au/case-study/linfox-eco-driver-training/

To reduce emissions, the company has a dedicated sustainability program called GreenFox, which includes the following initiatives:

- Eco-Driving training and practices
- Aerodynamic vehicle design
- Electricity savings
- Creating a green workplace culture through behaviour change

Under the Greenfox environmental program, the company is seeking to optimise the use of vehicles and encourage economical driving habits, which is expected to result in a cost savings of around 5%. The company is also considering innovative energy-saving measures such as the use of airbags between trailers. The aerodynamics of trucks is improved by closing the gap between the cabin and trailers, and between trailers. Continuous airflow improves the aerodynamics and reduces fuel use.

3

3. A PLATFORM FOR ACTION

3.1. Existing community sector initiatives, networks and groups

The Low Carbon West strategy builds on climate change action already underway in the WAGA region. There are a number of existing business networks, associations and programs that WAGA can draw on to drive action to reduce emissions in the transporting people and freight sector. Relevant initiatives and synergies are highlighted below.

Initiative type and names	Partners involved	Low Carbon West Synergies
Western Transport Alliance (WeTAI)	WeTAI is an alliance of seven councils in the Region (Brimbank, Hobsons Bay, Maribyrnong, Melbourne, Melton, Moonee Valley and Wyndham). It also includes other key organisations such as: LeadWest, the Port of Melbourne Corporation, VicRoads, the Department of Transport, Transport Workers Union, National Union of Workers, Victoria University, the RACV, Victorian Transport. Association and major transport, stevedoring and logistics companies operating out of the region.	The Western Transport Strategy advocates for many of the same actions as promoted through Low Carbon West, and there is already an established network led by LeadWest that delivered the Transport Strategy. It may be sensible to use the same network to implement some of the actions identified through Low Carbon West.
G21	Members include representatives from Statutory Authorities, Proprietary Companies, Public Companies, Local Government Co-operatives, Incorporated Associations, State Government Departments and Agencies and Federal Government Departments and Agencies	G21 is the formal alliance of government, business and community organisations working together to improve the lives of people within the Geelong region across five member municipalities: Colac Otway, Golden Plains, Greater Geelong, Queenscliffe and Surf Coast. G21 has been working on a 2014 Regional Transport Strategy for their region (due for release shortly) and there could be benefit in discussion and knowledge sharing. Geelong is involved in both G21 and Low Carbon West.
Victorian Department of Transport TravelSmart initiative	Victorian Government, councils, businesses and community groups	TravelSmart was an initiative that involved partnerships between the Department of Transport and local governments to influence small-scale transport behaviour and promote more sustainable transport options. Specific actions included a carpooling program and encouragement of cycling and walking. This program is no longer running, however Low Carbon West should look to leverage some of the partnerships that were formed by TravelSmart.

Initiative type and names	Partners involved	Low Carbon West Synergies
Car share programs	Private car share companies, councils	A number of councils in the region have existing car share infrastructure managed by providers such as Flexicar (see case study below). There is an opportunity to expand existing schemes and build on current partnerships between car share companies and councils.
SmartRoads	VicRoads, councils, Government Departments and Agencies, businesses and community groups	SmartRoads is an approach developed by VicRoads to maximise the efficient utilisation of Victoria's existing road networks. The approach integrates transport planning with land use planning to ensure that transport decisions take into account the effects on the wider community and the environment.

CS Case Study: Flexicar

Flexicar is a membership-based car share company founded in 2004 in Melbourne. It began as a pilot project called Flo Carshare and received small business grants from Shell's LiveWIRE program, the Victorian Government and the City of Melbourne.

In October 2006, Flo became 'Flexicar' and since then it has won numerous environmental and small business awards. Hertz Australia purchased Flexicar in December 2010 and continues to operate Flexicar's services.

Flexicar's initial goal was for car sharing to be a mainstream public transport option for urban Australians, providing a cheap, green and easy alternative to car ownership.

The business won a Banksia Award in 2010 and at that time had 2,500 members and almost 90 Flexicars with a claimed GHG emissions saving of 1,142 tonnes of CO_2 in 12 months. Every Flexicar is estimated to take as many as 15 cars off the road. In addition, the scheme operators claim that the scheme changes travel behaviours and connects neighbourhood residents.

Flexicar currently has over 140 cars parked around the streets of inner city Melbourne to rent by the hour. Conversations could be initiated to extend the scheme into the WAGA region.

4

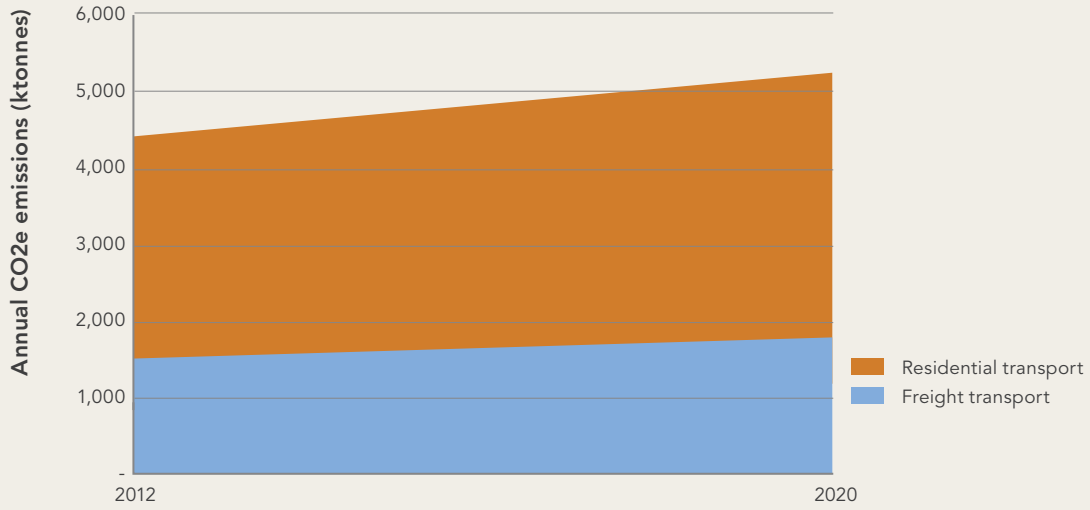
"It is not likely that all emissions growth from transport in the West can be offset through regional actions alone. Project partners will also need to advocate at Federal and International level to support major infrastructure upgrade, vehicle efficiency and behaviour change."

4. THE ROLE OF THE TRANSPORT SECTOR IN TRANSITION TO A LOW CARBON ECONOMY

4.1. Business as usual

The current (2012) and projected (2020) transport and freight emissions for the WAGA region are shown in Figure 6 below. The breakdown of emissions between residential and freight movements is fairly evenly split, although residential emissions are projected to grow at a faster rate between 2012 and 2020.

Figure 6 Business and industry baseline and projected emissions, WAGA region

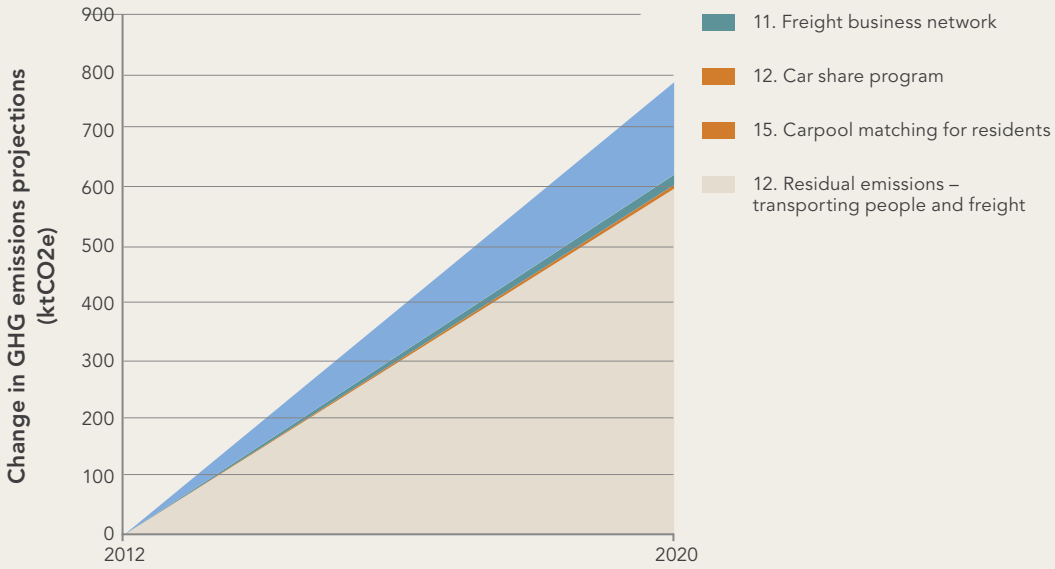


4.2. Best case

Analysis of the potential emissions savings that can be delivered by the actions outlined in this report shows that it is not possible to decouple emissions growth from the underlying population and demand growth; even with these actions achieved it is likely that transport related emissions will still be higher in 2020 than for 2012.

Other wider initiatives (e.g. further mode switching, fuel switching, home working) will be needed to further reduce emissions. The development of a regional freight consolidation would significantly increase emissions for the WAGA region but would bring wider economic benefit and would decrease the State's emissions.

Figure 7 Actions summary for transporting people and freight sector



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5. CROSS SECTOR ACTIONS

Through the development of Low Carbon West, a long list of 57 regional actions across all sectors was produced. Surveys and discussion were used to reduce this list to a shortlist of 24 actions. There are factsheets available online for each of the shortlisted 24 actions. These detail how emissions reduction and costs have been estimated and include notes from consultation sessions, such as the strengths, weaknesses, opportunities and threats for each action.

Upon further consultation, several actions were removed from the shortlist, leaving 20 key actions that form the basis of Low Carbon West. Of these, there are four actions related to the transporting people and freight sector. These four actions were qualitatively assessed and prioritised based on the following indicators:

- **Emissions benefit** – What is the extent of the emissions that are avoided as a result of implementation?
- **Cost effectiveness** – What is the financial investment required to achieve the emission reductions?
- **Co-benefits** – Does implementing the action lead to benefits beyond emissions reductions, such as the creation of local jobs or local economic growth?
- **Speed of implementation** – How quickly can the actions be implemented and completed, particularly before 2020?
- **Business or stakeholder support** – How supportive would businesses and other key stakeholders be in progressing the action?
- **Leadership or innovation** – Does the action help the WAGA region become a leader or show innovation in the sector?
- **Ease of implementation** – How great are the barriers to implementation of the action?

The prioritised actions related to the transporting people and freight sector are summarised below, and described in detail in Section 5.2. The RA number of each action refers to their priority ranking among the 20 actions.

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RA#	Actions – Communities	Brief description	Emissions benefit (ktCO2-e)	Focus	Emissions benefit	Cost effectiveness	Co-benefits	Speed of implementation	Business or stakeholder support	Leadership or innovation	Ease of implementation
11	Freight business network	Establish a regional network of freight businesses and implement a voluntary program for freight companies to track and reduce emissions	172	Freight	M	H	H	M	M	H	L
12	Car-share program for residents	Establishing (or extending) a formal car-share scheme in the region.	16.7	Reducing residential transport emissions	M	M	H	H	H	M	H
15	Carpool matching for residents	Implement a carpool matching program for residents, either online or via development of an app.	10.0	Reducing residential transport emissions	M	M	H	M	M	M	M
20	Advocacy for WIFT	Advocate for establishing a freight consolidation centre in the region, specifically the Western Interstate Freight Terminal (WIFT)	-1130*	Freight	L	M	H	L	H	H	L

H High M Medium L Low

RA 11

Freight business network

Specific

This action is to establish a regional network of freight businesses, combined with reporting requirements, that has the potential to significantly reduce emissions associated with the sector. If combined with an effective program that promotes specific measures to assist freight companies it should be possible to drive significant emissions reductions in this sector, as evidenced by Linfox (see case study).

Benefits

If half of the freight industry in the region (by share of emissions) sign up to the network and program, and each business targets a 20% reduction in emissions this would result in a saving of **172 ktCO_2-e** compared with the 2020 baseline. This represents a **0.9%** reduction across the WAGA region. In addition, the action could potentially decrease freight traffic on roads and increase competition and efficiency of freight companies.

Attainable

The primary cost for this initiative will be initiating, promoting and maintaining the program to encourage businesses to join the network. Individual businesses may incur additional costs associated with emissions reduction initiatives. However, actions are likely to reduce fuel costs, which should offset these capital outlays. Overall this action is considered to be cost effective and demonstrate a high level of leadership.

Scoping

WAGA will need to consider further the potential of this action. There are no existing programs in the region that encourage individual freight businesses to report and manage their emissions, although in 2009, the Victorian Environmental Protection Authority (EPA) and the Victorian Trucking Association (VTA) established a pilot program, EcoStation, with emissions reduction as a central objective. The pilot program ceased in 2011. Individual businesses run their own programs and there are some success stories that can be shared. There is general agreement from the Low Carbon West consultation sessions that the business networking element of this action delivers more benefit than the reporting aspects, as some businesses may be resistant to additional reporting of emissions and sharing of business practices.

Collaboration

- Target smaller freight companies
- Promote the market benefits for leading businesses
- Programs (e.g. eco-driving) can be expanded to the community
- Avoid doubling up of current reporting and tracking by freight companies
- Build on current connections with freight industry leaders
- Data from the network / program can feed into broader transport policies

Potential Ownership

- EPA
- LeadWest
- Freight business leaders
- WAGA as a minor partner

Timing

- Scoping / discussion to commence immediately
- Decision to proceed by mid-2015.
- Review points every six months
- Medium speed of implementation

RA 12

Car-share program for residents

Specific

The implementation of a car-share scheme in the region may result in reduced car ownership and reduced emissions through a mode shift to other, more sustainable transport modes. Results from a survey of members of the GoGet car share scheme showed that members are more likely to use other transport modes due to greater convenience for selected trips. Although the population in the WAGA region currently displays a high dependency on cars, a car-share scheme may encourage residents in higher density areas to use alternative transport for shorter trips. Emissions reductions can also be achieved by selecting electric or fuel-efficient cars for the car-share scheme.

Benefits

The consultant team has assumed that 12,000 residents (1% of the population) will sign up to a car-share scheme, that each car will have ten members and for each of these members, the distance travelled will decrease by 2.5% and be less emissions-intensive due to more fuel efficient cars being specified for the carshare scheme. Assumptions were based on a range of sources including Shaheen & Cohen 2013, Carsharing and Personal Vehicle Services and SGS City of Sydney Car Share appraisal. Based on these assumptions savings of **16.7 ktCO2-e** can be achieved compared with the 2020 baseline, which represents **0.08%** saving across the WAGA region. Other benefits would include reduced congestion and parking demand, reduced pollution and increased community interaction and engagement with sustainability.

Attainable

This action should be reasonably attainable and can largely be provided by the private sector, provided the business case is robust. It should be noted that through consultation both Greater Geelong and Wyndham questioned whether there would be sufficient demand given the low population densities in these municipalities. There are costs to initiate, promote and maintain the program as well as to construct the car-share infrastructure, such as parking designation, signage and installation of electric charging points (if using electric vehicles).

Costs of **$1.2 million** for infrastructure (paid by car share provider) are typical based on **$1000** per car spot for a population (uptake) of approximately **12,000 people**. (SGS, City of Sydney Car Share Appraisal). The private sector providers typically deal with their own administration and factor these costs into their business case test. Councils can show leadership by foregoing parking fees for cars belonging to a car-share company. Overall this action is considered to demonstrate a medium level of leadership.

Scoping

The public sector should not have to do much to scope car-share schemes in the region as providers tend to do this work themselves. The business case can be supported through commitments to advocacy and promotion by local governments and agencies.

Collaboration

A number of councils in the region have existing car-share infrastructure managed by providers such as Flexicar. This includes Maribyrnong and Moonee Valley. There is an opportunity to expand the existing schemes to other LGAs and develop a consistent approach to promoting and maintaining the schemes across the region. The regional co-benefits of this action provide opportunity to pool funding from councils outside the WAGA region.

Potential Ownership

- Private sector providers
- Advocacy and promotion by local government and transport groups

Timing

- Conversations with providers can be initiated immediately
- Progress should be tracked and reported through WAGA executive meetings
- High speed of implementation

RA 15

Carpool matching for residents

Specific

A carpool program allows residents with similar trip origins, destinations and travel times to share the driving burden. This increase in average vehicle occupancy results in a decrease in the overall vehicle kilometres travelled within the region. The program would be most effective between high density residential zones and work destinations, where people generally have similar working hours. The consultant team assumed that 2,000 residents (0.2% of the population) across the region would participate in the carpooling program, each of whom would be matched with one other resident to carpool on a regular basis.

Benefits

Based on the assumptions made by the consultant team this action would give rise to an emissions saving of **10 ktCO2-e** compared with the 2020 baseline. This is a **0.05%** saving across the WAGA region. Other benefits will include: reduced congestion, reduced pollution from private vehicles, reduced demand for road infrastructure and parking facilities, and increased community interaction and engagement with sustainability.

Attainable

It has been estimated that a car share program might be able to be catalysed for around $50,000 based on existing frameworks and application (apps). The primary cost will be associated with implementing and managing the program, including community promotions and administration of carpooling participants. A number of existing carpooling programs and apps can be utilised, removing the requirement for WAGA councils to develop the systems and methodology from scratch. Depending on the form of the program, it may require some administration. This may not be a full time role; it could be equivalent to a person a day or two a week to support publicity and deal with enquiries. As such, this action is considered to have a medium level of cost effectiveness. Overall, this action is considered to demonstrate a medium level of leadership.

Scoping

Further scoping would be required to develop and implement this program. Specifically some market testing and estimation of costs will be required. As part of this scoping WAGA could consult with the Victorian Department of Transport on the previous TravelSmart experience, which included a carpooling program to facilitate carpooling in communities across the state. ABS Journey to Work data can be used to assess feasibility of this scheme. Councils (including Melton and Hobsons Bay) have experience in managing their own internal schemes.

Collaboration

Successful implementation of this action requires a high level of support from community and business stakeholders that may not currently exist in the region. However, once the program is implemented and its benefits are communicated effectively, there is potential for the program to become highly successful through collaboration with existing community groups and businesses.

- Community centres / sports clubs etc.
- Potential collaboration with the Eynesbury DriveShare Trial
- Internet sites for new estates / real estate agents
- If the carpool program is successful, there is the potential to extend the program to cover more than one mode (i.e. incorporate carpooling, cycling, public transport etc. into the same program)
- Potential to tie in with NBN roll-out and associated funding. Increased internet accessibility can improve the functionality of any online tools used to facilitate the carpool program

Potential Ownership

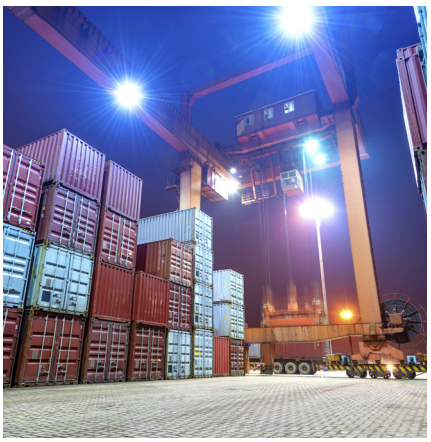
- WAGA
- Councils (lead by example)
- Business and private enterprise

Timing

- Scoping / discussion to commence immediately
- Decision to proceed by mid-2015.
- Review points every six months
- High speed of implementation

RA 20

Advocacy for the Western Interstate Freight Terminal (WIFT).



Specific

Continue to promote the WAGA region as an ideal site for a freight intermodal transfer station. A freight consolidation centre such as the WIFT would bring together rail and large truck-based freight to a central facility for distribution to the Melbourne region. The centre reduces the demand for heavy trucks on road networks in Melbourne and shifts a degree of interstate freight mode share from trucks to rail, which is less emissions-intensive. This would reduce freight emissions at a state and national level.

Benefits

Contrary to the other actions, the emissions benefit for a freight intermodal transfer station in the WAGA region would be felt at the state and national level and not at the regional (WAGA) level. The construction of the WIFT facility in the WAGA region would increase the freight emissions associated with the region. This is due to increased freight traffic on road networks within the region that are diverted from other parts of Melbourne. The increase in emissions for the WAGA region is significant at **1,130 ktCO2-e**, compared with the 2020 baseline. This amounts to a **6% increase** across the region. The development of the WIFT would significantly increase jobs growth, improve efficiencies for freight companies, deliver environmental benefits at a state and national level and reduce congestion and road accidents on major routes across Melbourne and Victoria.

Attainable

The Victorian Government (through Major Projects Victoria) has already commissioned significant work to test the potential for the WIFT. If approved, it will be developed over the next 15 years or so and has been estimated to cost approximately $850 million in capital construction costs.

As the action within this strategy refers to advocacy for the WIFT and not the construction of the facility itself, the major costs are associated with any research required to further build a compelling case to locate the intermodal freight terminal in the WAGA region. This action is expected to demonstrate a high level of leadership by the region.

Scoping

If WAGA is to advocate for the WIFT it will need to be clear on the benefits for the region and should work to promote best environmental and energy practice for the proposed terminal. Some of the benefits include greater efficiencies in freight handling, opportunities to introduce alternatives for major freight travel, reduced waste, new employment and cost savings for freight businesses operating in Victoria.

With its focus on emissions, WAGA will need to be particularly clear on the emissions boundaries and the implications of the WIFT development on the Low Carbon West baseline. Wider regional transport studies can be used to guide how the emissions story for the WIFT should be communicated.

Collaboration

- This action is closely aligned with ongoing work by MPV and others.
- Collaboration in terms of accounting for and distributing emissions fairly across the region, given that overall the WIFT will result in emissions reduction
- Potential increase in traffic congestion in certain areas

Potential Ownership

- MPV
- LeadWest / Western Melbourne RDA
- councils / WAGA

Timing

- Ongoing advocacy action
- Requires six monthly reporting of advocacy activity
- Low speed of implementation for the development and construction of the WIFT

6. A PLAN FOR IMPLEMENTATION

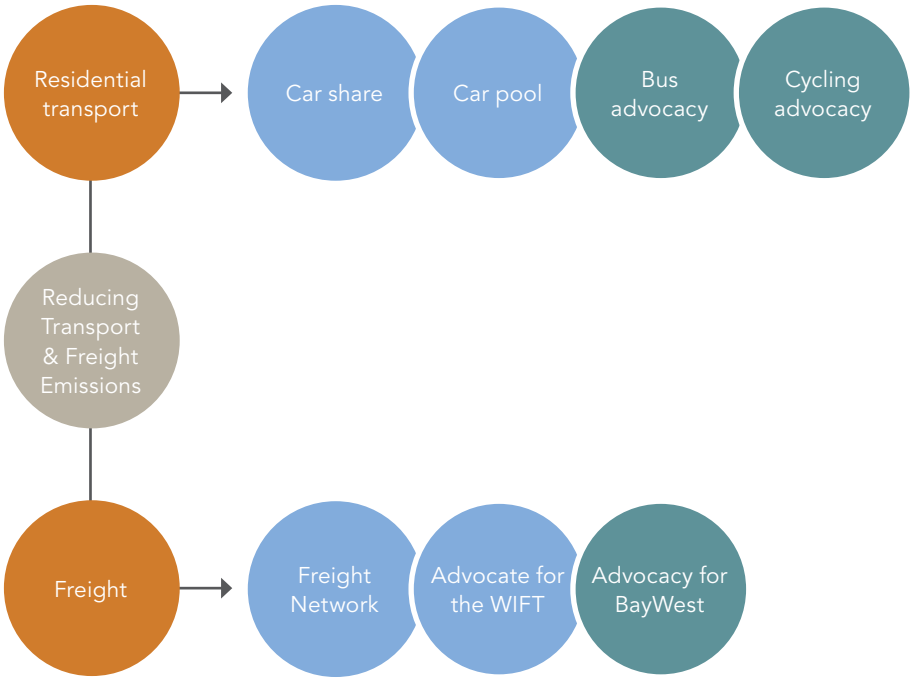
Low Carbon West sets four main actions in the transporting people and freight sector to reduce GHG emissions. Further actions may need to be identified in this sector. These actions can be coordinated through the following two:

1. Tackling residential transport emissions
2. Tackling freight emissions

Each of these programs will require a separate implementation plan detailing the agreed program components (initiatives or projects), program objectives, partners, advocacy approaches, funding requirements, milestones and steps for program monitoring and review.

An outline implementation plan for each of the two programs is included below.

Figure 8 Showing the potential elements of a program focusing on reducing emissions in the Transporting People and Freight sector. Note that the green actions have not been tested as part of Low Carbon West but could be sensibly tied into the overarching programs



Program 1: Tackling residential transport emissions	
Program objectives	• Promote and implement car-sharing and carpooling programs across all municipalities within the WAGA region • Work towards delivering **27 ktCO2-e** emissions savings per year, against the current emissions baseline
Program audience	Community
Program elements / initiatives	1. Review existing car-sharing and carpooling programs operating in the WAGA region 2. Investigate ways in which programs can be most efficiently and effectively supported by council 3. Implement pilot programs in key, high density localities 4. Review uptake and effectiveness of approach. Revise if necessary 5. Implement regional programs
The role of WAGA	Program coordination, collaboration and gathering of learnings from other council and alliance experiences.
Key partners	Western Transport Alliance, all local councils within region, established car-sharing companies and carpooling groups
The role of key partners	Program coordination (Western Transport Alliance), program support and partnering with established car-sharing companies and carpooling groups
Timeline	• Conduct review of existing programs and scoping activities by January 2015 • Roll out pilot programs from June 2015
Program funding and resourcing	• Designated council or WAGA resource (approximately one EFT position) to manage program • Leverage existing car sharing companies and carpooling groups

Program 2: Reducing Freight Emissions	
Program objectives	• Formalise freight transport network for the WAGA region • Encourage emissions-reducing practices through a collaborative freight business network • Work towards delivering **172 ktCO_2-e** emissions savings per year, against the current emissions baseline, assuming no WIFT • Advocate for the WIFT, ensuring clarity around the emissions story • Recalibrate regional emissions reductions reporting methods and targets if the WIFT becomes operational in the WAGA region.
Program audience	Freight businesses
Program elements / initiatives	• Advocate for developing a freight consolidation centre in the region • Establish a regional network of freight businesses
The role of WAGA	Lead facilitator, coordination, reporting of results
Key partners	Freight businesses, consultants, Victorian Department of Transport, DSDBI
The role of key partners	The freight businesses will collaborate to establish and maintain the network. They will also provide inputs into the business case for the WIFT with support from consultants.
Timeline	• Fund program scope by January 2015 • Finalise program lead and support staff by April 2015 • Establish the freight business network by July 2015 • Commence advocacy program for WIFT by September 2015
Program funding and resourcing	• A designated council or WAGA resource (approximately one EFT position) will be required to manage and engage interested freight businesses and lead the advocacy program

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7. MEASURING THE SUCCESS OF LOW CARBON WEST

Low Carbon West is a comprehensive plan for reducing regional GHG emissions in the WAGA region over the coming years. To understand the effectiveness of these actions in mitigating emissions, WAGA will develop a monitoring and evaluation plan towards the end of 2014. WAGA staff will be responsible for the measurement and evaluation of Low Carbon West, and progress reporting to the WAGA Executive Committee.

The monitoring plan will be delineated by sector and consist of a series of key performance indicators (KPIs) based on the actions prioritisation framework within Low Carbon West. In addition, the monitoring plan will define the reporting timeline and format. As the actions cover a breadth of sectors, the information sources to inform progress in each sector will also differ. A significant part of setting up the monitoring framework will be the identification of data sources. The data sources used to develop the 2012 current baseline provide the primary means of tracking the level of emissions reduction over the coming years.

The KPIs are likely to cover:

- Communications and advocacy with key stakeholders of Low Carbon West
- Engagement with industry through action implementation
- Co-benefits associated with implementation
- Number of projects identified, funded and implemented for each action
- Barriers or challenges associated with implementation
- Project case studies / fact sheets developed, in particular demonstrating leadership or innovation in the WAGA region
- Implementation resources and costs incurred and required over the coming year to support further implementation of Low Carbon West
- Overall energy and emissions savings by action, sector, by LGA and for the region.

Simple reporting templates will be set up to capture this information in a consistent format.

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