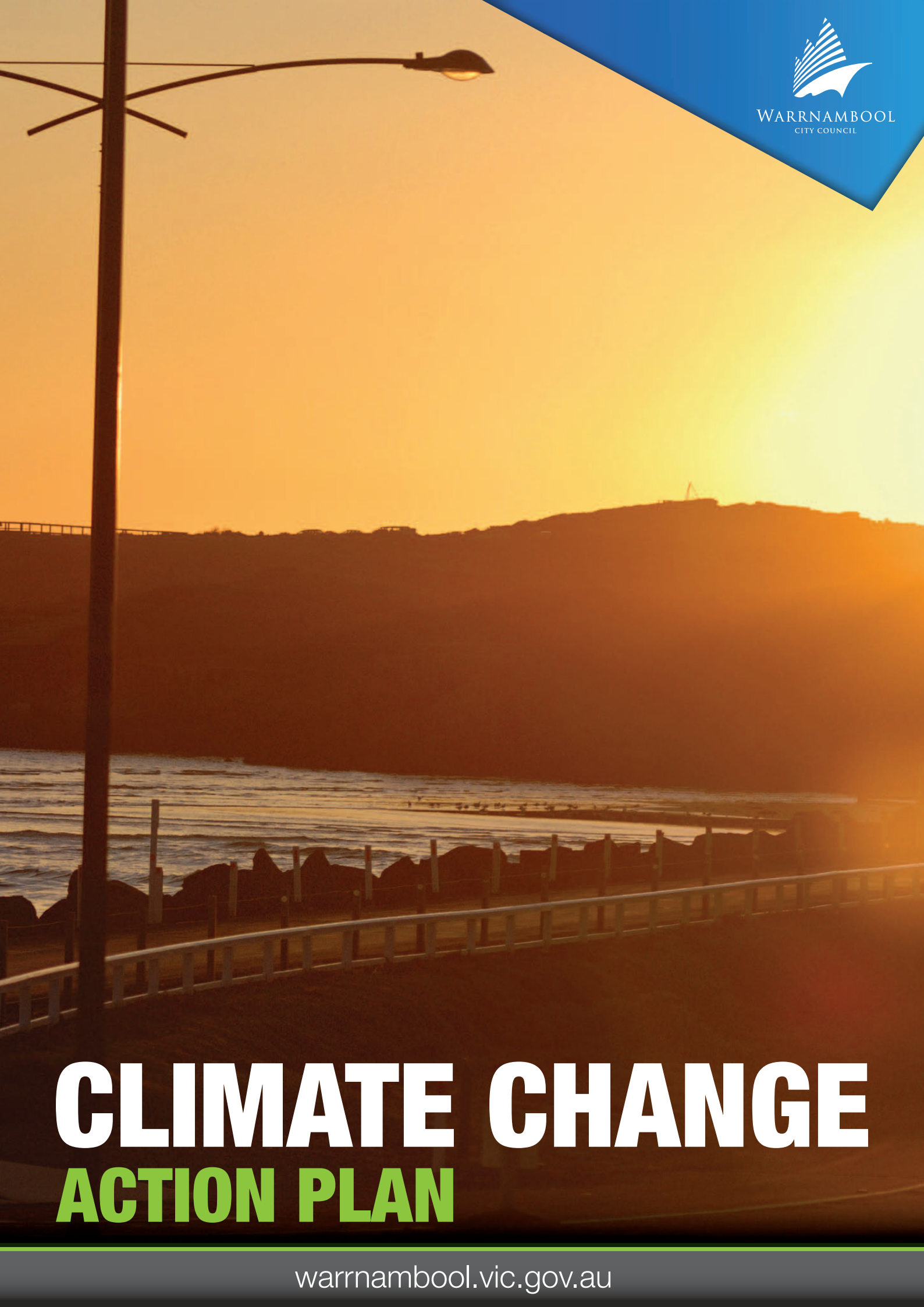

WARRNAMBOOL
CITY COUNCIL

CLIMATE CHANGE
ACTION PLAN

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CONTENTS

MAYORS FORWARD

The City of Warrnambool is known for its spectacular coastline, beautiful parks and gardens, foreshore walking and bike trails. It is a thriving economic and cultural centre in South West Victoria.

Climate change presents a major threat to Warrnambool City Council, to our natural and built coastal environment, to our communities and economic activity. Warrnambool City Council has worked hard towards improving and protecting our natural environment in the past and is committed to mitigating the effects of climate change now and into the future. As such, the Warrnambool City Council Climate Change Action Plan ensures that the causes and impacts of climate change are addressed as a high priority at a local level to help safeguard Warrnambool's future.

Climate change is happening now, it is affecting our weather patterns and these changes will impact upon our lifestyle and industries. As these changes continue, the effects are expected to intensify bringing a reduction in average annual rainfall, higher temperatures, rising sea levels, increased storm activity and more frequent flooding and droughts.

Taking proactive action to mitigate and adapt to climate change now has many benefits and will prepare Warrnambool for the future. It is imperative to show leadership to our community and to tackle both the cause and effects of these changes. With carbon pricing now in place there will be opportunities for Council and the community to save money by reducing reliance on carbon intensive products and services.

This Council sets an emissions reduction target of 30% by 2020. This is consistent with the target set by the Victorian Government. It is an achievable target that will not compromise Council's service delivery.

It is also important to diversify our economy and continue to attract businesses and investments that can develop low emission and renewable energy capacity and skills to our region. Cutting greenhouse gas emissions and transitioning to a low carbon economy tackles the root cause of climate change and promotes sustainable growth in our region.

Warrnambool City Council cannot fulfil this vision alone. We need the commitment and involvement of residents, including community groups, schools, businesses and government agencies to achieve these goals.

This document illustrates Council's commitment to implement a suite of actions over the next 8 years to tackle the critical issues of climate change.

EXECUTIVE SUMMARY

Warrnambool is Victoria's largest coastal City outside Port Phillip Bay. Residents and visitors alike are privileged to enjoy the benefits of a city located by the ocean and two rivers with thriving natural ecosystems and open spaces. The city is the regional hub serving more than 125,000 people in the Great South Coast region of Victoria, providing professional services and facilities for national and international industry.

Warrnambool City and the lifestyle enjoyed by its residents is facing serious challenges from climate change impacts. These are heightened by the City's dependence on climate sensitive economies within a carbon constrained economy.

In response to these threats Council has prepared the Warrnambool City Council Climate Change Action Plan (Action Plan). This Action Plan provides direction for Warrnambool City Council (Council) and the Warrnambool Community to build environmental, social and economic resilience to Climate Change and its associated impacts.

ACTION STATEMENT

The Action Plan acknowledges the need to tackle the root causes of climate change and reduce Green House Gas emissions. To this end the Action Plan sets a target of reducing Council's emissions by 30% by the year 2020. This is an ambitious yet achievable goal and brings Council into alignment with State and Federal Government commitments.

The Action Plan illustrates how Council will lead by example to reduce its corporate emissions and work with Warrnambool residents to help them reduce their own emissions and to become more resilient to the impacts of climate change.

The Action Plan identifies steps for Council and the Community to take to:

- Reduce greenhouse gas emissions
- Reduce oil dependency
- Transition to alternative energy sources
- Adapt to the physical impacts of climate change
- And to build community capacity to take advantage of emerging opportunities related to the green economy

1. INTRODUCTION

Warrnambool's renowned lifestyle is under threat. Our climate is changing; droughts, flash floods, heat waves, storm surge and sea level rises are inevitably going to become more apparent (Lenny Bernstein et al 2007). As these changes become more obvious, Warrnambool's industries, communities and our way of life will face increasing challenges, but we may also find opportunities. (The State of Victoria, 2008).

Warrnambool and the wider Great South Coast is well placed to face many of the challenges posed by climate change. The region has an abundance of clean and renewable energy investment opportunities from wind, wave and solar to geothermal and gas power stations. There is infrastructure

to accommodate significant growth in regional energy production and climatic modelling to date shows that this region can expect reasonably good rainfall with relatively small decreases in our average annual rainfall.
The region has opportunities to diversify our agriculture to make it more resilient to climatic changes and extreme weather events.
There is strong growth in our city with the opportunity to build ecologically sustainable and more liveable suburbs.

Perhaps most importantly the multiple tiers of government, businesses, professional associations, community groups and organisations are starting to come together to form partnerships and collectives to help build a culture of active living and community connectedness. A well connected community is far more resilient to challenges.

The Climate Change Action Plan (the Action Plan) in accordance with the 'precautionary principle' identifies directions for Council and the Community to take to:

- Reduce greenhouse gas emissions;
- Reduce oil dependency;
- Transition to alternative energy sources;
- Adapt to the physical impacts of climate change;
- And to build community capacity to take advantage of emerging opportunities related to the green economy.

2. WHY WE NEED A CLIMATE CHANGE ACTION PLAN

"Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level."
Lenny Bernstein.

Evidence that the world's climate is warming is seen in many places.

- Average air temperatures are on the rise. Since 1906 the average air temperature has risen almost 1 degree Celcius (C). There is no evidence that this has stopped.
- The world's oceans absorb most of the extra heat retained in the Earth's atmosphere. The upper 700m of the world's oceans have been warming since measurements began in the 1960s.
- The ice caps are melting. The vast ice sheets of Antarctica and Greenland are losing mass and the Arctic sea ice is declining. The area of ice in Antarctica has so far remained stable; however the ice shelves along the Antarctic Peninsula have started to collapse.
- The world's average mean sea level has been steadily rising throughout the 20th century. Most recently the rate of sea level rise has increased from 1.7mm per year to 3.2mm per year from 1993-2010.
- The natural world is reflecting these changes. Plants are flowering earlier, birds are migrating at different times, coral reefs are bleaching and the range of some species is shifting. These responses are all consistent with a changing climate (Commonwealth of Australia 2011).

Every international science agency (including Australia's CSIRO) has considered the evidence and has concluded that the warming of the world's climate is proven.

"Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level"
(Lenny Bernstein et al 2007).

The climate change impacts from this point are variable. The greenhouse gas emissions in the atmosphere now have a sufficient lifespan to ensure that the minimum climate change impacts are relatively set for the next 20-30 years. Beyond that point the extent of the climate changes will be relative to how we act now as a global community.

A generally accepted tipping point for the majority of Earth's ecosystems is a 2 degree temperature rise on pre-industrial mean average temperatures. If this is exceeded the impacts are expected to be severe, the species loss alone is expected to be in the vicinity of 65%. Australia is one of the highest per capita emitter of Green House Gases (for the purposes of this Action Plan, Greenhouse Gas (GHG) emissions and carbon dioxide equivalents (CO2e-) are used interchangeably). It is imperative therefore as a developed nation that we lead the way in reducing our GHG emissions (Climate Commission 2011).

3. WHAT THIS MEANS FOR SOUTH WEST VICTORIA

Climate Change will affect each region differently. For South West Victoria, current climate change trends mean hotter and drier conditions than we are used to.

By 2030 there will be:

- An average temperature rise of almost 1 degree C;
- An increase in the number of hot days (over 30 degrees C), while our winters will warm slightly less (+ 0.7 degrees C);
- A decrease in rainfall over spring of 7% and a decrease in the annual average rainfall of 4% (Department of Sustainability and Environment, 2008).

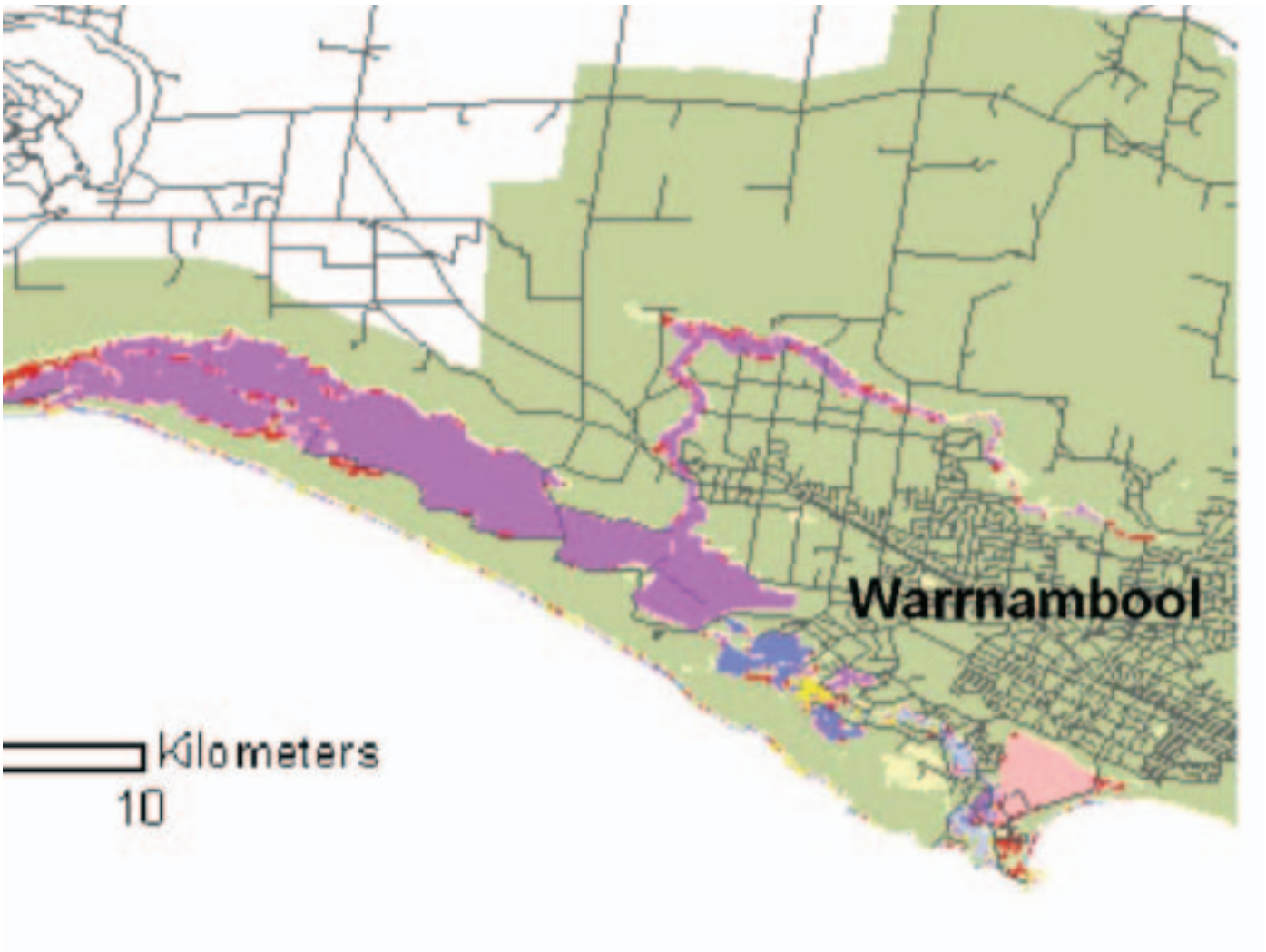
By 2070 if emissions are not drastically reduced, we will see:

- An average temperature increase of 2.4 degrees C;
- Significant biodiversity losses;
- The average number of hot days (when the maximum is over 30 degrees C) increase from 17 currently to 28 by 2070;
- Total rainfall decline and come in short sharp bursts;
- Less rain and higher evaporation rates, reducing the amount of available water for our waterways;
- Run off into the Hopkins River system decline by as much as 50% (Department of Sustainability and Environment, 2008), due also to the combination of a larger population and increased demand.

By the end of the century, 2100, we are expecting:

- The sea level to rise as much as 75cm in South West Victoria;
- 2.2m sea level rise during storm surges (predicted for 2100 - Source Hunter, J.R. 2010);
- Inundation from rising sea levels, posing a real and significant threat for South West Victoria (see Figure 2.2).

Figure 2.2 Land vulnerable to inundation during a 1 in 100 year storm tide under current climate conditions and various scenarios of future sea level rise for South Warrnambool



Terrain height

- <0m
- 0-1m
- 1-2m
- 2-3m
- 3+ m

Features

- Rail infrastructure
- Roads
- Rail

1:100 year stormtide Inundation

SLR	Year	Scenario
0m	Current	
0.15m	2030	1
0.47m	2070	
0.82m	2100	
1.10m	2100	3
1.40m	2100	4

(Source: Adapted from Future Coasts Data (Kathleen L. McInnes, Ian Macadam and Julian O'Grad, 2009)).

There is really no easy answer - all of us who care about this issue need to also recognise that making a difference comes at a price."

BHP Billiton chief executive Marius Kloppers 2010

4. STATE AND FEDERAL POLICY RESPONSE

In 2010 the Victorian Climate Change Act was enacted. The Victorian Climate Change Act establishes a target of reducing Victoria's emissions by at least 30% by 2020 compared to 2000 levels. This represents an 11% reduction on 1990 levels by 2020. In 2010 the Victorian Climate Change White Paper was also adopted.

The Federal Government has also committed to reducing its emissions by between 5 and 15 or 25 per cent below 2000 levels by 2020. The five per cent target is unconditional and has bipartisan support. The up to 15 per cent and 25 per cent targets are conditional on the extent of international action. On 27 January 2010, Australia formally submitted its full target range to the Copenhagen Accord. The decision to maintain the full range is consistent with the approach taken by other countries.

5. WARRNAMBOOL CITY COUNCIL RESPONSE

The Council has a strong history of commitment to tackling the root cause and threats raised by Climate Change. This is demonstrated through its long involvement with the Cities for Climate Protection (CCP) Australia program. The CCP program was an international campaign delivered by the International Council for Local Environmental Initiative – Local Governments for Sustainability. Council has participated in the CCCp program since June, 1999. Council progressed through the milestones rapidly. By 2006 Council had completed the final sixth milestone of the Cities for Climate Protection. Some of the achievements of this program included:

- Community inventory investigation
- Walking School Bus™: Encourages children to walk to school in organised groups
- Ride to Work Day: Provided a healthy breakfast as part of the campaign by Bicycle Victoria to encourage people to ride to work
- Bike Able Warrnambool - encourages bicycles as transport
- Wunta TravelSmart Bike Ride - families took part in a ride along the foreshore and back through city streets to breakwater (10km ride)
- Purchase of hybrid petrol /electric vehicles, energy audits and energy efficient retrofits of the Council's major buildings and office equipment
- The purchase of GreenPower for a percentage of Councils operations
- A substantial tree planting program that helps informally offset the Council's greenhouse gas emissions
- TravelSmart - targets employees commuting from home to work

Since 2007 Council has achieved a number of these actions and many more, and it continues to develop as a sustainable city. Achievements to date include:

- The development and adoption of the Sustainable Transport and Environment and Sustainability strategies
- Promotion of alternative transport to and from work and provision of safe bicycle storage facilities and an electric bike for staff
- Development of the City's walking and cycle ways
- Continual recording of CO2e- emissions utilising the Planet Footprint scorekeeping service to which Council has prescribed
- Installing 18kW of photovoltaic panels across nine of Council's buildings
- Encouraging community renewable energy uptake by facilitating a successful photovoltaic bulk buy program to 145 homes
- Developing actions to reducing energy, water, fuel use and CO2e- across its facilities and services
- The purchase of 20% green power, which alone avoided 1,564 tonnes of CO2e- in one year

A significant part of this Action Plan is reducing Council corporate CO2e- emissions and helping the Warrnambool community to do the same. From this context we need to look closely at how to build on Council's success in the CCP program and achieve not only the actions listed above but strive higher and continue to lead our business sector and the wider community in reducing our greenhouse emissions and adapting to a carbon constrained economy. A key learning that came out of the CCP Program and the various State and Federal policy responses to climate change is to dedicate permanent ongoing Council resources and processes through staff time, established focus groups and software to ensure Council consistently measures, analyses, manages and reports on greenhouse gas emissions.

6. COUNCIL'S CONTRIBUTION TO CARBON EMISSIONS

Since 2007/2008 Council has utilised a greenhouse gas scorekeeping service provided by Planet Footprint. Council's current Carbon Footprint is calculated at 7806 tonnes of CO2e-. This is a significant reduction from 2004 levels which were estimated at 9119 tonnes of CO2e- emitted. There is still much more that can be achieved. Council's future emission reduction targets have been set from a 2007/2008 baseline. Below is a snapshot from the January to March quarter of 2012. This illustrates the breakdown of emissions sources for Council.

Figure 6.1: WCC GHG Emissions Breakdown for the 1st Quarter of 2012

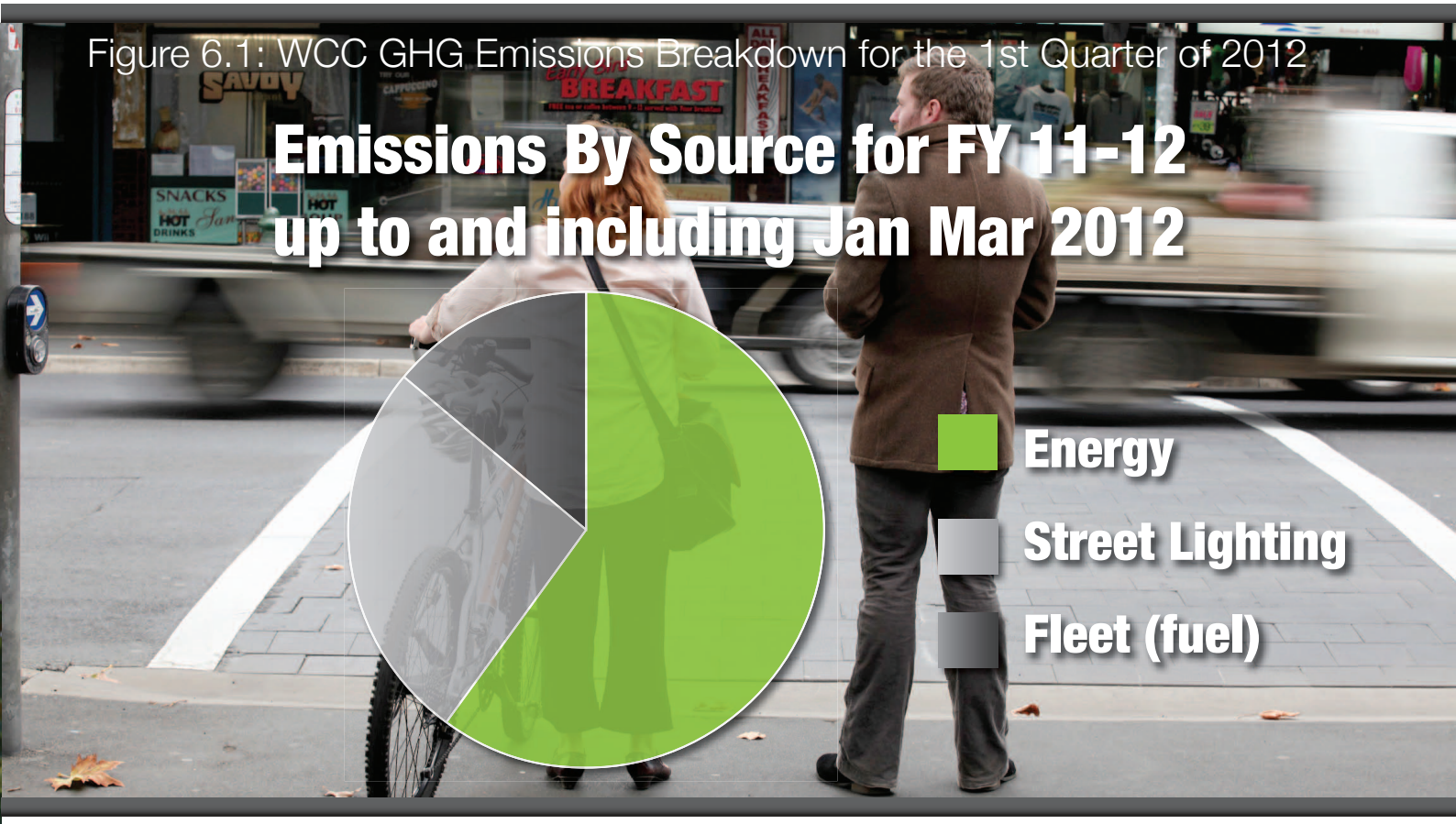


Figure 6.1 shows energy use is the predominant carbon emitting source. An audit of energy use across Council's facilities was conducted at the following buildings:

- Flagstaff Hill
- Aquazone
- Warrnambool Stadium
- Central Kindergarten
- Surfside Holiday Park
- Matron Swinton Childcare Centre
- Archie Graham
- Saleyards
- Art Gallery
- Civic Centre
- Harbour Pavilion

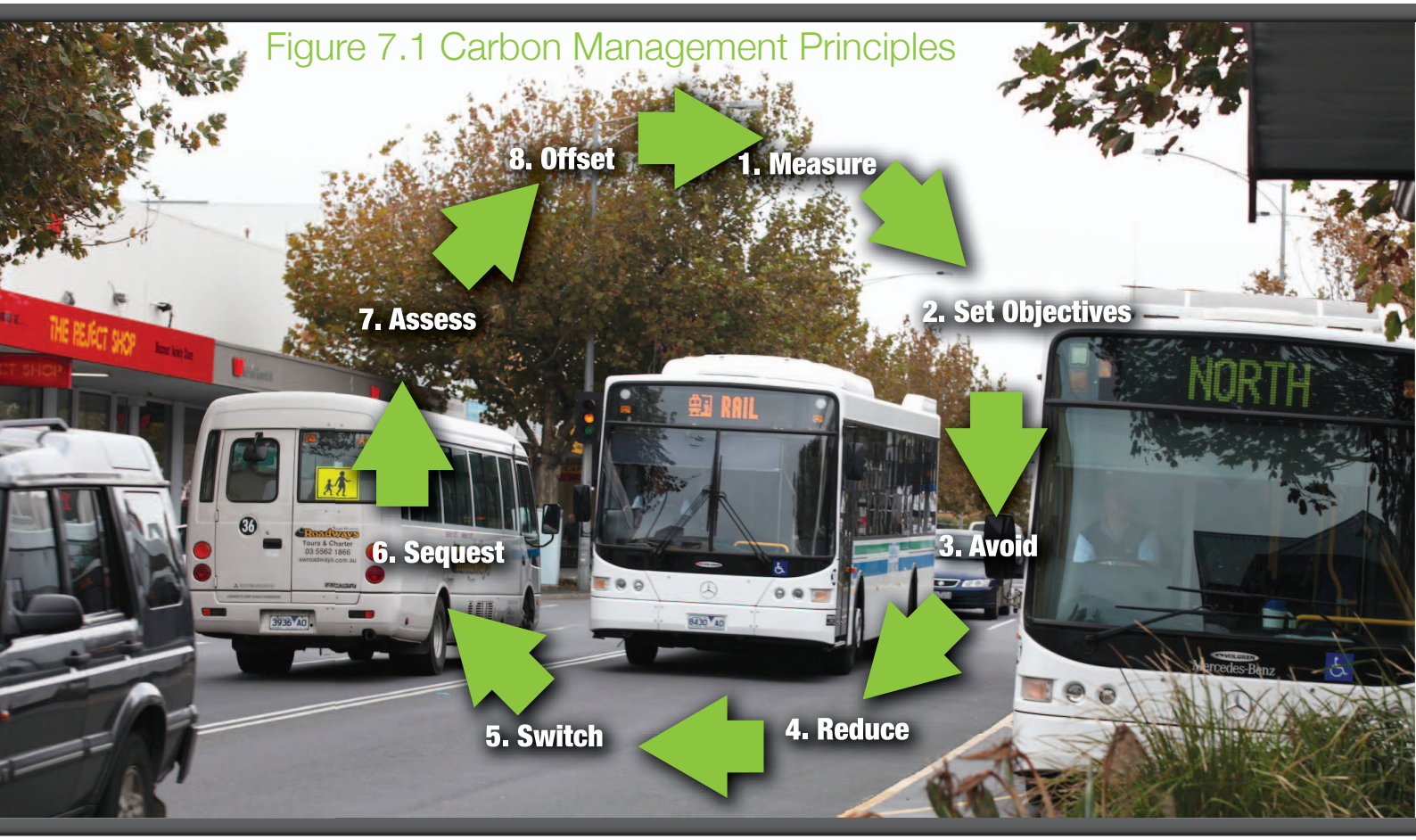
These audits highlighted a number of areas where Council could drastically reduce emissions while saving money.

7. THE CLIMATE CHANGE ACTION PLAN - HOW WILL IT WORK

Strategic Action

This Action Plan was developed utilising the Victorian Environmental Protection Authority's Carbon Management Principles, which recommend in general that Council invest more money in greenhouse reduction initiatives which will deliver considerable emission and financial savings before considering offsets. This is expanded upon further in Section 7 – Strategic Action.
The emissions reduction goal of this Action Plan has been developed with reference to the Victorian Environmental Protection Authority's Carbon Management Principles. These principles set a broad process that can easily be applied to Council's emission reduction strategies (illustrated below).

Figure 7.1 Carbon Management Principles



Measure - It is important to know the quantity and source of your GHG emissions. It is impossible to manage what is not measured. Data will continually being refined and is now reaching a higher level of accuracy. It is still pertinent however for Council to invest in undertaking a robust GHG inventory that meets the National Standard.

Set Objectives – Considering Council's current emissions profile and identified energy efficiency improvements, Council has set an emissions reduction goal of reducing the organisational emissions by 30% by the year 2020. This is consistent with the target set by the Victorian Government. It is an achievable target that will not compromise Council's service delivery. This equates to removing approximately 2200 tonnes of CO2e- or removing 488 cars off the road a year (using a conservative estimated average of 4.5 tonne of CO2e- a year for a car).

Avoid – The best way for Council to reduce its emissions is by avoiding direct GHG emissions and energy related indirect emissions. Avoidance will not only cut emissions it will also reduce energy and other resource costs and minimise Council's exposure to the carbon price.

Reduce – After all feasible avoidance measures have been made, the next most efficient option is to reduce emissions from essential activities. Reduction can be broken into two broad categories – modify and recover.

Modify:
These actions include energy efficient retrofits as well as improving fleet efficiency and sustainable transport.

Recover:
These actions refer to those where energy is lost or wasted through existing practices. The most obvious action for Council to consider is cogeneration. Cogeneration is the production of two forms of energy from a single process. Usually this is in the form of electricity and heat production. Cogeneration plants capture waste heat from burning a fuel (eg. natural gas) so that it can be used in industrial processes or for domestic, commercial space or water heating.

Switch – As well as taking the opportunities to reduce Council's net energy end use, there are also opportunities to ensure that the energy Council is using is being generated and delivered in the most efficient manner. These actions include switching to clean and renewable energy sources and purchasing green power.

Sequester – Once all the previous actions to limit the amount of emissions generated have been exhausted Council should then focus on actions to sequest emissions through a continued focus on revegetation. There may be opportunities to develop partnership sequestration projects on public land to take advantage of the developing carbon market and reinvest profits back into public carbon reduction initiatives.

Asses – Once the Action Plan has been adopted and actions are underway it is necessary for Council to assess their performance against the Action Plan's objectives and 30% reduction target. If Council is not meeting the Objectives of the Action Plan and the ultimate 30% reduction target, question why not? Is this because there are reduction opportunities or emission sources this Action Plan has not considered, or should Council change the decision criteria for which opportunities they implement?

Offset – The final step in the emission reduction principles is to offset those remaining emissions that cannot be avoided or sequested on site. Offsetting emissions is a legitimate way to reduce Council's contribution to Climate Change.

These principles underpin the direction taken by this Action Plan and also provide the logic used to determine the priority of the actions.

The Action Plan provides a balance of measures which demonstrate leadership, mitigation and adaption. The Action Plan ties together existing statements and actions from current council policies and plans, which when combined with the suite of new actions and Carbon Management Principles, provides clear direction to enable Council to take significant action on climate change.

Figure 7.2: Action Plan Strategic Framework

Figure 7.2 shows the strategic framework to guides all actions. There will be times when actions of leadership will need to be weighed against actions of mitigation and adaptation. For instance, leadership actions may have a greater community benefit than when compared to a corporate emission reduction benefit and must be considered accordingly.

8. SCOPE

The scope of the Action Plan predominately focuses on Council's operations, but it will assist the Warrnambool community to mitigate and adapt to our changing environment. There are two major themes of the Action Plan:

- to help Council and our community to reduce our reliance on carbon intensive fuels, foods and behaviours;
- to help Council and our community prepare for and adapt to our changing climate.

The Action Plan has been informed by a number of processes including sustainability audits, community consultation and formal reviews of existing sustainability programs and policies. There has been extensive community engagement with two consultation periods during the Action Plan's initial planning and development and again prior to its adoption by Council. The consultation and sustainability audits highlighted the importance of Council taking a proactive approach to climate change, the benefits of this approach are illustrated in Figure 8.1.

Figure 8.1: Benefits of a Proactive Approach to Climate Change

The Action Plan complements a number of existing Council policies and strategies. The Action Plan also aligns with current State, Federal and International policy, programs and directives.

9. IMPLEMENTING THE ACTION PLAN - ROLES AND RESPONSIBILITIES

It is the responsibility of all Council staff to integrate leadership, mitigation and adaptation actions into many of their everyday duties and activities. Specific actions are assigned to relevant branches of Council as shown in the table of actions in Section 12.

It will be the responsibility of the City Sustainability Unit to actively engage with other Council staff to ensure they have the appropriate skills, knowledge, practices and capacity to deliver actions in the Action Plan and ensure it is integrated across all of Council's operations.

Council will be relying on several external funding sources to achieve many of the larger infrastructure and community projects. In these situations the employment of a dedicated project officer is recommended to roll out these projects.

10. MONITORING AND EVALUATION

The Action Plan will be a living document. Each quarter Council's facility managers and the City Sustainability Unit will review progress towards energy use and the emission reduction targets.

Action Plan progress report

In September of each year the City Sustainability Unit will produce a Sustainability Report that will detail Council's progress on a number of sustainability programs. Included in this report will be a dedicated chapter on the Action Plan's progress and will suggest any modification or changes to the document as necessary. This report will be made available to the community.

11. COSTS AND BENEFITS FOR EMISSION REDUCTION

It has been forecasted that energy prices will rise significantly over the next five years. It is estimated that electricity prices will rise by between 24% and 31% over the next 5 years. This equates to an annual increase of $219,000 for Council's operations assuming that usage remains constant. Gas prices are also expected to rise by between 2% and 4% as a result of the Carbon Price. Water treatment and supply is very energy intensive and it is estimated that water prices will also increase by about 1.5% as a result of the Carbon Price. With the introduction of the Carbon Price, reducing carbon not only helps the environment but now makes good business sense.

It is acknowledged that considerable investment is required to reduce Council's exposure to a carbon price and flow on effects such as the increase in energy prices. In order to fund actions set out in this Action Plan, Council should consider creating a Carbon Reduction Fund. The Carbon Reduction Fund would be administered by the City Sustainability Unit of Council and focus on leadership, mitigation and adaptation actions Council. For a project to utilise this fund, it will need to demonstrate a sound business case with an average payback of 7.5 years that has approval and support from other Council directorates. Preference will be given to projects identified in this Action Plan, however if a extraneous project can demonstrate clear GHG abatement potential, or address energy efficiency or waste management it will be considered. Additionally, projects with external funding, such as grants, will be viewed favourably.

The Carbon Reduction Fund should commence with a budget of $100,000 per annum. This level of funding will be continued for the first three years, after which it should be reviewed, giving consideration to any CPI increases. It is proposed the Carbon Reduction Fund be supplemented by any revenue received through the sale of surplus energy or carbon offsets generated by the Council.

The term 'Carbon Neutrality' has been raised through a number of forums as a possible aim for Council. Carbon neutral is where an individual or company's carbon emissions are effectively reduced to zero through a combination of reducing energy consumption, using renewable energy and offsetting the remainder. For Council to achieve this aim there are significant costs involved. Even if Council were to achieve a 30% reduction in emissions, the net emissions would still be approximately 6244 t of CO2e-. The cost to offset 6240 t of CO2e- is approximately $106,000 per annum (this is

calculated on a voluntary carbon offset cost of $17 per tonne of CO2e-).
The costs of achieving various reduction targets are set out below, please note these are estimations built upon Sustainability Audits undertaken in 2011.

Table 11.2: WCC Emission Reduction Options and Costs

CO2 E- Reduction	8%	10%	13%	25 -30%	Carbon Neutral
Actions	Energy efficiency improvements for Councils buildings with a payback of 2 years or less	Energy efficiency improvements for Councils buildings with a payback of 3 years or less	Energy efficiency improvements for Councils buildings with a payback of 10 years or less	Energy efficiency improvements for Councils buildings + Fleet + Street Lighting with a payback of 10 years or less	Energy efficiency improvements for Councils buildings + Fleet + Street Lighting with a payback of 10 years or less + Carbon Offsets
Costs	$50,000	$105,000	$112,000	$900,000	$900,000 + $106,000 per annum

Note: The voluntary carbon offset price is set at $17 per t of CO2e-. Prices are likely to fluctuate in the future.
The Action Plan Strategic Framework identifies leadership as a strategic driver for this Action Plan. As a demonstration of leadership, Council may wish to fund individual buildings to become carbon neutral in the future. According to the Principles of Carbon Management, offsetting emissions is the last form of action to consider once all other viable reduction and avoidance measures have been exhausted. An analysis for several of Council's key buildings is provided below.

Table 11.3: Cost of achieving carbon neutrality for key Council buildings

Site name	**Est. Annual Greenhouse Savings (kg CO2e)**	**Est. Total Annual Cost Savings ($)**	**Est. Cost of Energy Actions ($)**	**Simple payback (years)**	**Greenhouse Gas Emissions (Original) (kg CO2e)**	**Greenhouse Gas Emissions Potential Savings (%)**	**Est. Cost to offset remaining Greenhouse Gas Emissions per annum($)**
Harbour Pavilion	37,511	$5,400	$16,467	3.7	93,187	40%	$950
Civic Centre	161,496	$15,097	$154,437	12.6	632,639	26%	$800
Aquazone	367,016	$39,880	$17,543	1.3	1,863,082	20%	$25000
Archie Graham	147,298	$22,261	$92,867	5.7	251,588	60%	$1600
The Arc Stadium	100,768	$13,461	$53,147	6.8	245,891	42%	$2300
Flagstaff Hill	244,362	$30,302	$70,200	4.9	445,159	56%	$2000
The Art Gallery	697,830	$58,253	$55,515	3.4	719,257	97%	$350

12. THE CLIMATE CHANGE ACTIONS

Focus area 1: Mitigation—reducing and offsetting Council emissions

Council Buildings Emissions Reduction

The Council is committed to leading the way with the development and implementation of a Smart Buildings energy efficient retrofit project and the implementation of a series of 'show by doing' projects for 10 of the City's own buildings and operations.

The cumulative effect of rolling out the Smart Building Project will be a reduction of approximately 2000 t of CO2E- which equates to a 15% to 30% cut in Council's emissions. It is projected that even with relatively small increases in energy prices (4% P/A) Council will as a result of the buildings retrofit program save over $1.3M by 2020.

Warrnambool City Council's Smart Buildings Project

The Smart Buildings Project is an initiative of Council designed to demonstrate to a variety of different users of Council buildings how to combine energy efficient technology, education and improve knowledge and capacity to address energy and greenhouse emissions management in the City of Warrnambool.

It is envisaged the Smart Buildings Project will not only deliver significant environmental and financial savings for WCC, it will provide an opportunity to further work with the local community including businesses, school groups, community groups and other organisations to improve the knowledge and capacity for residents of Warrnambool and the surrounding area to address issues associated with energy efficiency and the Carbon Price.

Council will seek external funding to subsidise the Smart Buildings Project. This project will deliver all the energy efficiency actions identified through the sustainability audits. The total retrofitting costs for these works is approximately $700,000 with an average payback of 7.5 years. The cumulative effect of these actions will be a reduction of 15% in emissions.
By investing $700,000 over 7 years in the Smart Buildings energy efficiency retrofits, Council will save at least $1.2M by 2020 at a return of approximately 7.7% per annum on investment.

Council Street Lighting Savings

The Great South Coast was successful in receiving $1.4million in funding from the Federal Government Community Energy Efficiency Program (CEEP) to retrofit street lights in Warrnambool City Council and five other municipalities in South West Victoria. The $3.04 million Street Lighting Project will be one of the biggest Local Government sustainability and infrastructure projects to be delivered across the Great South Coast resulting in the retrofit or over 7500 80 Watt mercury vapour lights.

Council has 2200 80 Watt mercury vapour (MV) lamps in Category P (residential) streets. These lights are mainly owned and operated by local distribution business Powercor. Most of Council's street lights will be replaced by either Twin 14 Watt T5 lamps or 32-Watt compact fluorescent lamps, which reduce energy usage by 68% and 62% respectively compared to the existing 80-Watt mercury vapour lamps.

It is envisaged the roll out of street light retrofits in Warrnambool City Council will occur in the 2013/2014 – 2015/2016 financial years. It is estimated Council will save over $100,000 per year on its electricity bill through the Street Lighting Project with a 4-5 year pay back.
Figure 6.1 shows street lighting makes up a significant proportion of Council's greenhouse gas emissions, with approximately 2280 tonnes of CO2e emitted a year. It is estimated the Street Lighting Project may save Council between 10-11% of its total greenhouse emissions, resulting in an approximate reduction of 824 tonnes of CO2e- or removing over 183 cars of the road a year.

Council Fleet Emissions Reduction Strategy

Council currently operates a significant corporate and plant fleet. Council's fleet currently accounts for over 12% of Council's total greenhouse gas emissions. This is a significant increase in proportion from 2004-2005 that showed Council fleet to only account for 8% of Councils total emissions. Less fuel and growing demand has seen domestic fuel pieces rise at three times the rate of inflation. This has led to a 10 % annual rise in fleet running costs.

It is proposed Council develop and implement a fleet-wide emissions reduction strategy. The costs of collecting the data and developing this strategy are small (the Fleetwise program suggested by the Victorian government costs $400). In the meantime council will also investigate the feasibility of installing a biodiesel facility at their Works Depot for use in Council's existing plant. The biodiesel facility presents an excellent opportunity to demonstrate leadership to the Warrnambool community, particularly to the business sector.

Council will make every effort to obtain the 'greenest' vehicles possible as measured by the Green Vehicle Guide (GVG). For the 2012/2013 financial year, council's fleet procurement will continue to be led by the WCC Fleet Policy. The only change suggested for this period is to update the GVG star rating target from 3 stars as it is currently to a fleet average of 4 stars. Minimum GVG star ratings will be reviewed by the Fleet Manager every year depending on the vehicles available at that time.
The implementation of these proposed fleet changes will be clearly communicated to staff and the community highlighting the benefits of taking a proactive approach to reducing emissions and setting an example for the community to follow.

Failure to understand and manage fleet fuel costs poses a significant financial risk to Council. The proposal to include FleetWise, a Department of Transport program, will help improve fleet fuel efficiency. Case studies of fleet fuel efficiency programs show that average fuel savings of 8% -12% can be achieved by implementing a range of actions. Improving fleet efficiency will make Council less vulnerable to the ongoing trend of rising fuel costs.

Council Transitioning to clean and renewable energy

Current clean and renewable energy technology is readily available and a proven way to reduce costs and GHG emissions. Council will install more solar, conduct further investigations into small scale wind turbine systems and cogeneration facilities. Cogeneration is a cost effective, clean energy technology that utilises low emission fuel sources such as natural gas to produce electricity and heat for building. It should prove to be a viable alternative to brown coal sourced energy for facilities such as Aquazone and possibly the Civic Centre and other buildings in the central business district. Warrnambool's close proximity to the Otway Basin's significant natural gas reserves further boosts the benefits of cogeneration for the city.

Carbon Sequestration

Warrnambool is blessed by the vast amount of public open space which when combined with the developing carbon market provides significant opportunities to develop partnership sequestration projects through revegetation on public land. The coastal reserve, Albert Park, Victoria Park and the 80 hectares of public open space to come into Council management in future growth areas such as North Dennington and North of the Merri are ideal areas which should be investigated for carbon sequestration opportunities. There is potential for any carbon sequestration project profits to be reinvested into further revegetation or the funding of public carbon reduction initiatives.

Focus area 2: Adapting current infrastructure & services

Actions for Existing Infrastructure

Council's Asset Management team has estimated that there is over $100M worth of infrastructure assets that are either owned or managed by Council at risk to coastal climate change impacts including, rising sea levels, storm surge and coastal erosion between now and 2070. This estimate was made using a very basic desktop survey of existing infrastructure. This survey also highlighted the fact that Council does not have sufficient information on coastal flooding and the associated effects on their existing infrastructure to make informed management strategies. It is important that the community are well informed of the outcomes of this assessment.

Council will investigate the costs to undertake a coastal hazards risk assessment. This would build upon the assessment currently being undertaken by Moyne Shire Council through the Victorian Government funded Future Coasts Program and will provide Council with the necessary information to develop informed management strategies for at risk assets and infrastructure. In the meantime Council will take a precautionary approach and ensure that no inappropriate development is undertaken along the foreshore within the primary dune or below 2.5m AHD (Australian Height Datum).

Council has implemented some leading soft engineering practices to protect the vulnerable beach of the Lady Bay and its coastal infrastructure, such as the award winning Foreshore Promenade. This involves moving seaweed rack, which was previously removed, to the base of the primary dune to promote dune accretion and reduce the impacts of erosion from storm surge. The beach is monitored by a surveyor to measure dune and beach changes. This is a 'soft engineering' method to ameliorate the impacts of sea level rise on soft shoreline areas of the coast and should serve as a benchmark approach to tackle future similar situations.

Rainfall intensity changes have not thus far been factored into any floodplain and drainage developments or management strategies. With a potential rainfall intensity increase of 15% Council's current stormwater drainage network will be significantly impacted. Council needs to undertake a thorough review of its stormwater drainage network to identify any vulnerabilities and formulate a works plan to retrofit and upgrade where necessary. Actions that should be considered include increasing the number and capacity of retention basins, encouraging more permeable surfaces in developments, and utilising stormwater harvesting systems.

Actions for Existing Services

Council currently delivers a number of services that may be impacted by climate change. One issue for consideration is staff working in the community during extreme weather events, particularly heatwaves. Council has developed a heat wave plan that will cover heat related impacts in more detail. It is recommended that the heat wave response strategy be remodelled to be applied across all extreme weather events.

Actions for Future Products and Services

Council currently subscribes to Eco-Buy, a not for profit network which facilitates the purchasing of accredited green products and services. Currently the purchasing of green products and services accounts for approximately 2% of Council's annual expenditure. The carbon price will have flow on effects to the prices of carbon intensive products and services. Council should investigate including life cycle analysis, pay back periods and carbon footprint of products and services purchased through its tender procedures and procurement policy. This will allow for the true costs of products and services to compared over their life and further reduce Council's exposure to a price on carbon and ultimately further reduce Council's carbon footprint in the future.

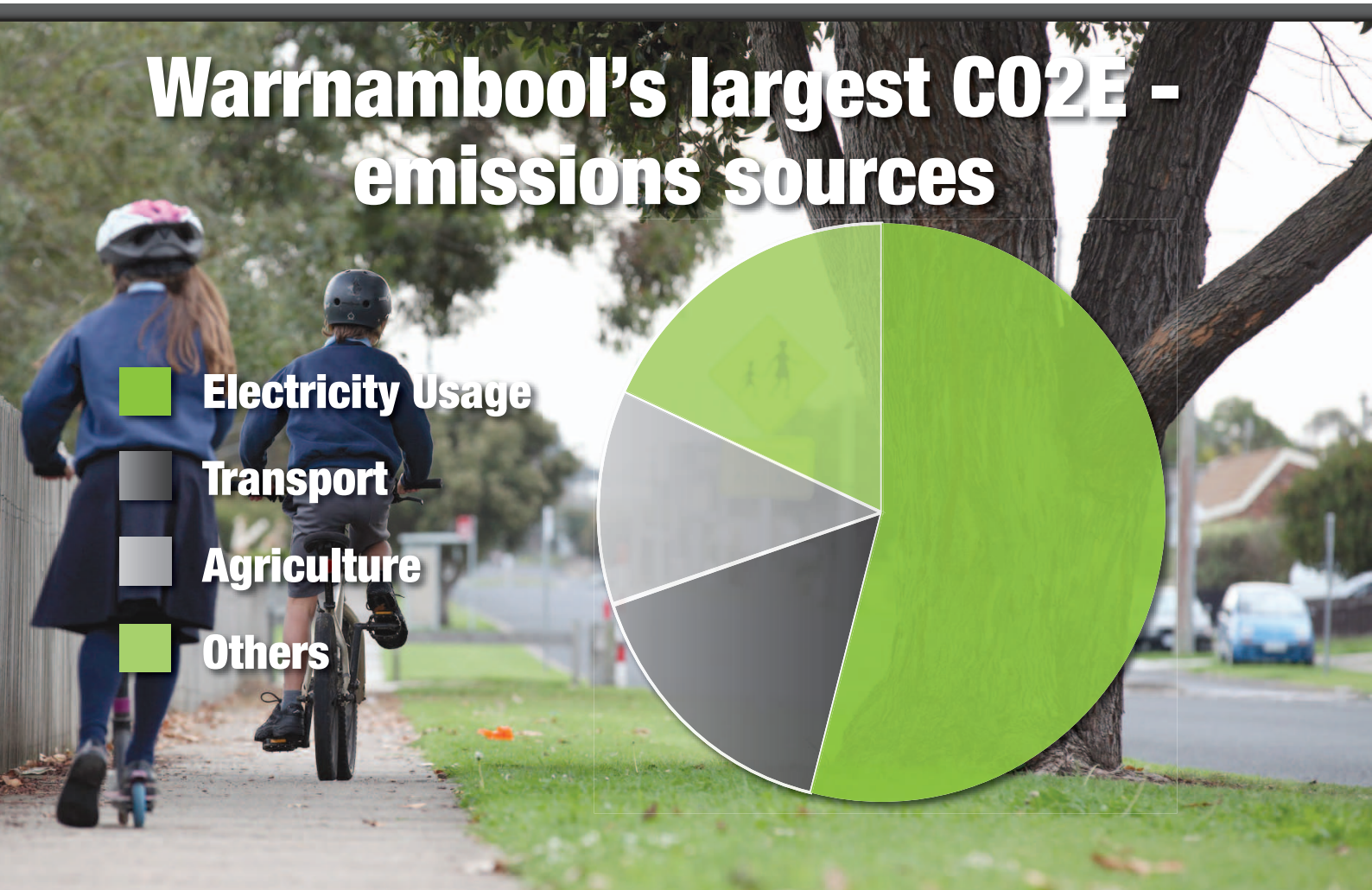
Actions for Scenario Planning

Costal climate change impacts including rising sea levels, storm surge and coastal erosion will be experienced by Warrnambool between now and 2070. While Council may not have sufficient information on coastal flooding and the associated effects on its existing infrastructure, this should not be a barrier to undertaking some community scenario planning. Current research supported by local community surveying indicates that South West Victorian communities are concerned about the impacts of climate change, especially those pertaining to their health and property. Community surveying also shows that the Warrnambool community is generally poorly informed of the likely extent of those impacts and what can be done to manage and prepare for them.

It is important that the community and the various service deliverers are well informed of the possible and likely impacts of climate change and extreme weather events. It is also very important to practice emergency management responses to identify any flaws or vulnerabilities in the response plan. Council will work in partnership with other key agencies to facilitate a workshop series designed to inform the community and service providers of the likely impacts of climate change for the South West. Council will also design and facilitate a series of scenario planning workshops with the other relevant agencies to prepare for extreme weather events that are likely to be enhanced by climate change.

Focus area 3: Community Climate Change Actions

The Victorian Government has made available local government greenhouse gas inventories. These inventories are very broad and rely on a number of assumptions and this must be considered when making any emission reduction plans for the Warrnambool community. This inventory informs the Action Plan by highlighting the three key emission sources to focus on.



The inventory makes it clear that Warrnambool's greatest emissions source is electricity usage which accounts for approximately 54% of Warrnambool's emissions. Victoria relies on brown coal fired power stations for the vast majority of electricity consumed. This is a very emissions intensive form of electricity production.

Transport is the next greatest emissions resource accounting for approximately 16% of Warrnambool's emissions. Interestingly the data shows a sharp decrease in transport emissions that correlates directly with fuel price increases.

The third most significant emissions source is agriculture, making up just over 12% of Warrnambool's emissions. Enteric fermentation (livestock 'burps') is responsible for 71% of agricultural greenhouse gas emissions.

The inventory also highlights Warrnambool's total energy usage has risen since 2004 corresponding directly with the city's growing population. On a per household basis, Warrnambool's energy usage has remained constant at 5.5 MWH per household per year, this figure is comparable our neighbouring councils who's electricity usage varies from 3.0 to 9.0 MWH/house hold. Warrnambool performs is greatly improved by the fact that mains gas is readily available, which is not the case for much of Moyne, Corangamite and Colac Otway LGAs.

Smart Living – Community Engagement

The Smart Living Program was established in 2010 and is a result of a collaboration of ideas and input from the Warrnambool Community Garden, Council, the South West Sustainability Partnership and other local community groups and local businesses. The Smart Living Program aims to encourage positive action and behaviour change towards sustainable living for households by reducing energy and water usage, divert waste from landfill and modify behaviours around food consumption and production.

There are multiple parts to the program:

- A series of sustainable living workshops targeted at the individual household level in meeting its short term goals of reducing water, energy consumption and household waste; and increasing home food production (fruit, vegies, herbs) and planting of indigenous native garden plants
- Assisting residents by coordinating green power electricity agreements, renewable energy and water or workshops
- Providing accurate, timely and trustworthy information to the community on climate change and sustainability in the home
- Building partnerships with other agencies, businesses, community groups through the strengthening of community and neighbourhood connections
- Coordinating the Dirty Weekend, Ride to Work Day and Sustainable Living Festival
- Establishing and maintaining the Smart Living Library resources

Another main objective of the Smart Living Program is to help Warrnambool become more resilient to Peak Oil.

In just a century, our society has become entirely dependent on oil. Approximately 90% of our transport is fuelled by oil. Oil is also used extensively in many products we take for granted, the fabric in most of our clothes is petroleum based, plastics are predominantly petroleum based. Much of our agriculture relies heavily on oil and petroleum. This would seem to be in contrast to the fact that crude oil is a finite resource.

Future oil supply is a very controversial topic. The scientific and professional world are divided as to when the world's oil reserves will reach their maximum yield and begin to run out. This point is often referred to as "peak oil".

The South West of Victoria is currently vulnerable to the impacts of peak oil. The area is heavily reliant on road transport and any significant increase in road freight costs will make many local industries unviable. Many basics food stuffs would become unaffordable due to the high transport costs. There are also many small regional communities that could become isolated if road transport was too expensive. The Warrnambool community needs to begin the transition to an economy where oil is restricted by encouraging a wide range of local industries and wherever possible, continue to buy locally and support local producers. Council will continue to support this transition through the promotion of sustainable transport initiatives through partnership projects and multiple community initiatives including the Smart Living Program.

Council will continue to be involved in the delivery of the Smart Living Program in partnership with government agencies, businesses, not for profit organisations and community groups. The success of this program has been largely due to the strong partnerships between local government, state government agencies, community groups and the local business. These partnership need to be continued and built upon for successful delivery of this program now and into the future. The program will need to be continually developed and updated to meet current and emerging community needs.

Community Gardens and Regional Food Security

The Warrnambool community has made it clear to Council through a recent survey on climate change that local food security and education about growing your own food are two areas of primary concern that they would like Council to address. An interesting outcome of the survey was that irrespective of an individual's belief or disbelief around climate change, regional food production remains a high priority.

It is predicted that climate change will result in more frequent and intense drought across Victoria, potentially making food production in northern Victoria more unreliable. The flow on from this is that Victoria will rely increasingly on imported food from interstate or overseas. This reliance on food which has travelled further has both nutrition and cost implications, especially if the price of fuel continues to increase.

Strategies for ensuring an affordable supply of fresh food to low income and disadvantaged sectors of the Warrnambool Community, especially those already experiencing food insecurity, should be developed.

The Department of Primary Industries has undertaken a study on the effects of likely climate changes on the region's agriculture. Of interest are the opportunities for this region to begin shifting towards new forms of agriculture and different crops as the rainfall decreases and average temperatures rise (the State of Victoria 2008). That being said, the South West of Victoria is very well placed with relatively slight climatic changes to produce a greater proportion of the state's food.
As fuel prices continue to increase and severe weather events become more prevalent and intensive, there is as yet an undefined need to begin sourcing more food locally. An obvious option is for the community to grow more food at home where possible and to utilise community gardens and local food cooperatives. Warrnambool currently has one community garden that has been in developing since 2005.

Warrnambool Community Garden and the Healthy Urban Building (HUB) Project

The Warrnambool Community Garden concept began in 2005. It has since developed in a successful and vibrant community facility that incorporates a flourishing community garden and the HUB (a community workshop facility). This project demonstrates community leadership in a positive and proactive manner. The Community Garden aims to:

- To educate members of the community about sustainability, environmentally-friendly gardening, general environmental issues and healthy living and eating
- To demonstrate simple, practical steps that can be taken by individuals to reduce impact upon the environment, to work together as a community and to contribute to building a sustainable future for our area.

While the Warrnambool Community Garden is flourishing, it is only a small step towards regional food security and is not accessed by many people that currently facing food insecurity. Council will investigate working in partnership with organisations to deliver the following actions and implement where feasible:

- Build on the current unpackaged food cooperative run by the Uniting Church - investigate facilitating the development of a locally grown food cooperative that provides options for local food producers of any scale to sell their produce to the Warrnambool community. An example of such a cooperative is GreenBox from the South Coast of NSW. This cooperative received some seed funding from their local council and has now built a significant member base and is self-sustaining
- Investigate and where feasible trial food producing streetscapes utilising nature strips and street trees to grow food
- Develop programs with the Warrnambool community and other not-for-profit agencies such as the Toronto Food Share program and other models.\
- Identify further sites for community gardens, community orchards and market gardens
- Facilitate and support initiatives such as the Food Bank and Street Harvest where possible
- Council work with State Government agencies and other stakeholders to bring together the relevant community groups to tackle common issues of climate change.
- Utilise the services of Volunteers@warrnambool to improve the capacity of environmental community groups through providing assistance and support with OH&S, finances, marketing etc to reduce volunteer burnout.

Sustainable House Design

The Council's Environmental Sustainability Strategy identifies the incorporation of sustainable design principles into residential developments as a key action to help the City become more sustainable. As energy and water costs continue to rise, the sustainable design of houses and subdivisions becomes increasingly relevant.

Council is committed to providing leadership to the Warrnambool community. To this end Council will develop and provide the community with a regular sustainable house design workshop and education materials to help builders and developers transition to providing more energy and water efficient developments. By incorporating Environmentally Sustainable Design features (ESD) into a new development, builders and developers will be able to produce a property that is more comfortable, healthier and cheaper to run, which is critical in a time of climate change and rising energy and water costs.

Sustainable Transport

Council's Sustainable Transport Strategy identifies a number of priority actions for Council to undertake to help the Warrnambool community transition to more active and sustainable modes of transport. The strategy has a number of priority actions including:

- Addressing current gaps in footpath and shared footpath network
- Strengthening and linking active transport routes
- Improving cycling signage, bike parking, amenities, amps and signage
- Educating the Community about Sustainable Transport
- Implementing Council's Healthy Moves Program.

The Sustainable Transport Strategy highlights the numerous public transport challenges including frequency, timing, inappropriate routes, connectivity and parking at the train station. The recent Climate Change Community Survey received a number of comments regarding the lack of public transport options within Warrnambool and concern that the current public transport system will not meet the future needs of the expanding and carbon constrained City of Warrnambool. The provision of a free Central Business District (CBD) shuttle bus that serviced the CBD, Gateway, North Warrnambool, Deakin and the Foreshore over summer has also been raised on multiple occasions.

Council has a significant role to continue to build relationships and partner with service providers to improved public transport.

Solar

The Solar Bulk Buy conducted by Council in 2010-2011 proved to be one of Council's most beneficial community initiatives resulting in the installation of 145 solar photovoltaic systems on residents homes. This achieved an estimated cumulative saving of over $175,000 a year on residents electricity bills and the removal of over 540 CO2e- a year or the removal of 120 cars of the road.

Since the Solar Bulk Buy there are now many suppliers and installers of solar electric and solar hot water services providing a valuable service to residents. Barriers still exist to the uptake of solar. These include misconceptions of the performance of solar in the south west, the changing complexities of the Renewable Energy Certificates and much more.

Council will investigate conducting a "Speed Dating with Solar" community workshop. The intent is to break down the barriers of the uptake of solar technology in Warrnambool by providing unbiased information and a link to solar businesses

Community and adaptation

The physical impacts of climate change are relatively well understood and local, State, and Federal governments are all taking steps to manage these risks accordingly. The social impacts of climate change are far less well understood and are in the most part government agencies are not well prepared to deal with these impacts.

Identifying who is most vulnerable to climate change impacts requires accurate information about what impacts the Warrnambool community will be exposed to, how sensitive different community groups are to these impacts and how well equipped they are to deal with these impacts. To effectively examine, understand and manage the social vulnerabilities of climate change, Council will need to work collaboratively with various agencies including health care providers, social service providers, clubs and emergency management organisations.

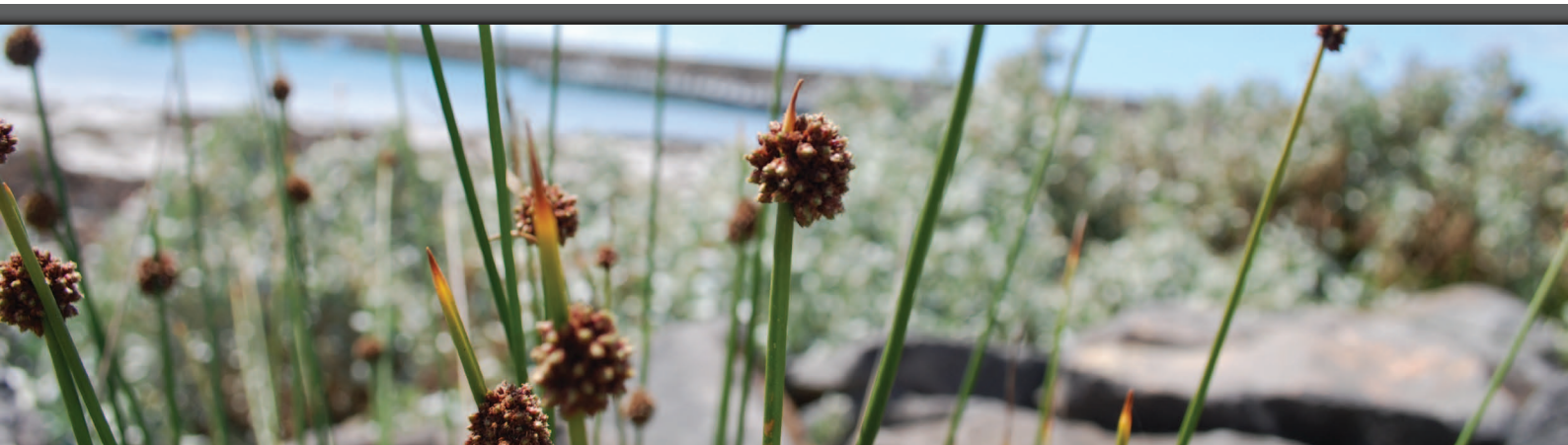
In order to build on existing local information, including the recent community climate change survey results, Council will initiate a series of climate change scenario planning workshops inviting all relevant parties to attend and to articulate what the impacts of various expected climate change impacts may have on our community.

Cost and savings for community actions

While this Action Plan focuses on Council's corporate emissions it is important to consider how Council can help the community. The costs and benefits for taking community action to reduce energy use, water use and household food production are difficult to quantify, but survey results show that this is increasingly important to people.

Emissions generated through the processing of household waste are significant and waste processing costs will rise in response to the carbon price. These emissions and associated waste processing costs can be significantly reduced by reducing the amount of organic matter being sent to landfills. In late 2011 Council surveyed the community to gauge the level of support to implement an organics collection service, which would drastically cut the amount of waste going to landfill and hence also reduce the emissions and associated costs. This survey showed that the community on the whole was not prepared to support an organics collection service. While this is still a recommended action, this cannot be enacted until 2018 due to existing contracts. In the interim Council will continue to help the community reduce their organic waste going to landfill by providing education and encouraging people to compost their organics.

Addressing energy use remains one of the most practical, efficient and financially effective ways to assist community. Through initiatives such as the Smart Living Workshops and potential "Speed Dating with Solar" people will have the opportunity to learn ways to reduce their GHG emissions and energy use with clear financial savings for households and businesses.



Key

Leadership
Mitigation
Adaptation

OBJECTIVE	ACTIONS	PRIORITY	RESPONSIBLE DEPARTMENT(S)
Endorsement of Action Plan	Adopt and implement the Council Climate Change Action Plan	High	Councillors
Council will reduce it's GHG emissions by 30%on the 2007/2008 baseline over the next 7 years through a program of retrofitting existing council buildings, street and public lighting	Roll out the Smart Buildings energy efficiency retrofit program Undertake street lighting energy efficient retrofit Continue to collaborate with other local governments both locally and internationally to develop and implement best practice emissions reduction programs Continue to review the Climate Change Action Plan in line with any new or emerging obligations	High High Medium Medium	City Infrastructure & City Strategy City Infrastructure & City Strategy City Sustainability Unity City Sustainability Unity
Council will undertake a robust GHG inventory to identify carbon hotspots within Council's operations.	Develop a GHG inventory for the whole of Council - Scope 1 & 2 emissions Council will plant 15000 trees annually and quantify voluntary carbon offsets Investigate and if found to be feasible install a biodiesel facility at Council's Works Depot to supply Council's Plant equipment and corporate vehicles where possible provided it does not breach the vehicle specifications	High High Medium	City Infrastructure & City Strategy City Infrastructure & City Strategy City Infrastructure
Council will further reduce their GHG emissions through better facility and fleet management.	Increase proportion of organic waste diverted from landfill. For the 2012/2013 financial year, council's fleet procurement will continue to be led by the WCC Fleet Policy. The only change suggested for this period is to update the GVG star rating target from 3 stars as it is currently to a fleet average of 4 stars Sign on to and undertake the Fleetwise Program Develop and implement emissions reduction strategy informed by the Fleetwise program Develop and implement the $100,000 per year Carbon Reduction Fund	High High High High High	City Infrastructure City Infrastructure City Infrastructure & City Sustainability Unit City Infrastructure & City Sustainability Unit Finance & City Sustainability Unit

OBJECTIVE	ACTIONS	PRIORITY	RESPONSIBLE DEPARTMENT(S)
Council will undertake an asset and infrastructure review to identify those which may be vulnerable to climate change	Undertake a Coastal Hazards Risk assessment. Review storm water management system in light of likely future increased rainfall intensity Develop a coastal climate change adaptation plan. In the meantime Council will take a precautionary approach and ensure appropriate development is undertaken along the foreshore within the primary dune	High Medim High	City Infrastructure City Infrastructure
Council will develop adaptation plans for assets and infrastructure vulnerable to climate change	Develop a storm water management adaptation plan. In the meantime Council will take a precautionary approach and ensure that all future storm water drainage models utilise rainfall intensity figures Council will also design and facilitate a series of scenario planning workshops with the other emergency service providers to prepare for extreme weather events that are likely to be enhanced by climate change	High High	City Strategy, City Sustainability City Infrastructure
Council will facilitate a range of scenario planning workshops with agencies and the community Council will continue to investigate and where viable install alternative clean and renewable energy systems	Implement small wind turbine systems, plant, equipment and infrastructure at Council facilities as a 'show by doing' project Critically review the performance of this system and if it is shown to be effective and well received by the wider community Critically review the performance of Council's existing photovoltaic (PV) systems and if they are shown to be cost effective and well received by the wider community, Council will investigate other sites that may be suitable for small to medium PV systems Investigate and if viable install cogeneration systems at suitable high energy use council facilities	High Medium Medium Medium Medium	City Infrastructure & City Strategy City Infrastructure & City Sustainability Unit City Sustainability Unit City Sustainability Unit City Infrastructure & City Sustainability Unit
Council will further reduce their GHG emissions through Improved staff awareness and internal organisational shift	Conduct a staff survey of current awareness and behaviours relating to Climate Change Review Survey results and identify any areas of potential improvement Undertake strategic staff training to address gaps in awareness Develop a staff incentive program to change behaviours and operating systems to reduce GHG emissions Re-evaluate staff awareness and behaviours 3 months after training an incentive program implemented Redevelop The Smart Living Program in line with the consultation	Medium Medium Medium High High High	City Sustainability Unit City Sustainability Unit Human Resources with support from City Sustainability Unit Human Resources with support from City Sustainability Unit Human Resources with support from City Sustainability Unit City Sustainability Unit

OBJECTIVE	ACTIONS	PRIORITY	RESPONSIBLE DEPARTMENT(S)
Council will continue to develop innovative, effective, and efficient community engagement programs promoting sustainable living	Undertake workshops to encourage positive action and behaviour change towards sustainable living for households and families in Warrnambool	High	City Sustainability Unit
	Develop and implement a Sustainability Community Ambassadors Program	Medium	Community Services with support from City Sustainability Unit
	Review and evaluate Sustainability Community Ambassadors Program after 12 months	Medium	Community Services with support from City Sustainability Unit
	Council will facilitate a workshop series designed to inform the community and service providers what the likely impacts of climate change will be for the South West	High	Community Services with support from City Sustainability Unit
	Council will facilitate a “Speed Dating with Solar” community workshop	High	City Sustainability Unit
	Council work with State Government agencies and other stakeholders to bring together the relevant community groups to tackle common issues of climate change.	High	City Sustainability Unit
	Utilise the services of Volunteers@warrnambool to improve the capacity of environmental community groups through providing assistance and support with OH&S, finances, marketing etc to reduce volunteer burnout.	High	City Sustainability Unit
Council will continue to lobby for improved public transport	Continue to lobby service providers and advocate for improved public transport within and to and from the City	Medium (ongoing)	City Growth
Council will seek to develop partnership programs that reduce food and energy insecurity	Building upon the current unpackaged food cooperative run by the Uniting Church, investigate the facilitating the development of a locally grown food cooperative that provides local food producers of any scale to sell their produce to the Warrnambool community.	Medium	Community Services with support from City Sustainability Unit
	Investigate and where feasible trial food producing streetscapes utilising nature strips and street trees to grow food	Medium	City Infrastructure and City Sustainability Unit
	Develop programs for the Warrnambool Community such as the Toronto Food Share program and other models	Medium	Community Services with support from City Sustainability Unit
	Identify further sites for community gardens, community orchids and market gardens	Medium	Community Services with support from City Sustainability Unit
	Facilitate and support initiatives such as the Food Bank and Street Harvest where possible	Medium	Community Services with support from City Sustainability Unit
Council will facilitate a range of initiatives, workshops. policies and business assistance programs to help local community groups and businesses to take advantage of the emerging green economy	Collaborate with key stakeholders to build capacity within the local business and agricultural sectors to successfully reduce their exposure to the carbon price and maximise on the potential for green jobs and renewable energy growth within this region	Medium	City Sustainability Unit & Business Support
	Council will develop a sustainable house design workshop and education materials to help builders and developers transition to providing more energy and water efficient developments	High	City Sustainability Unit & Building Services

OBJECTIVE	ACTIONS	PRIORITY	RESPONSIBLE DEPARTMENT(S)
Council reduce its exposure to carbon intensive goods and services.	Council should investigate including life cycle analysis, pay back periods and carbon footprint of products and services purchased through its tender procedures and procurement policy.	Medium	City Corporate Strategies
	Council investigate giving a 20% reduction on building permits for energy efficient designs exceeding 7 stars.	Medium	City Building Services

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