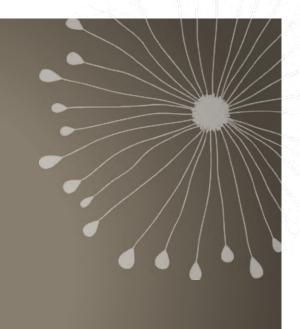


Environmental Sustainability Strategy 2012-2022







# **Contents**

Our Mission	2
Our Vision for Sustainability	3
A Sustainable City	4
Our Environment	5
Our Challenges	11
Policy Context	15
Our Strategy	18
Our Priority Areas	20
Water	20
Land	24
Climate Change	28
Biodiversity	32
Urban Development and the Built Environment	38
Waste Management and Resource Recovery	42
Change Strategies	46
Our Approach	49
Policy Directions, Strategies And Approaches	51
Water	52
Land	57
Climate Change	65
Biodiversity	69
Urban Development and Built Environment	76
Waste Management and Resource Recovery	82
Change Strategies	87
References	94



# Our Mission

**What?** To become a sustainable City and measure our progress and success.

**Why?** The City of Whittlesea is growing and using its resources and natural assets at a rate and in a way that is unsustainable. Protecting the environment is one of the biggest concerns identified by the community.

**Who?** Council and the people of the City of Whittlesea.

How? Through seven key themes: Water, Land, Climate Change, Biodiversity, Urban Development and the Built Environment, Waste Management and Resource Recovery, and Change Strategies.

**Environmental Sustainability** is planning and providing for the needs of individuals and communities now and for future generations, creating resilient and prosperous communities and protecting the environment and ecosystem services.<sup>1</sup>

# Our Vision for Sustainability

To live sustainably in our urban and rural areas.

To ensure our carbon footprint, water, waste, energy use, flora and fauna are managed sustainably so future generations can enjoy the environment in which we live. Immigration, strong housing demand, economic growth, climate change, alternative energies and transport all provide challenges for our environment, future planning and how we live. Our daily routines have changed; we plan for tomorrow and use innovation to become more sustainable. Everyone does their bit to help.²





# **A Sustainable City**

The City of Whittlesea is working towards becoming a sustainable city. Council recognises that we must protect and enhance our natural and built environments if we want a sustainable, productive and liveable future.

Our municipality is fortunate to have a diverse range of natural assets including rare native grasslands, local waterways and significant animal species like the Growling Grass Frog.

Situated on the urban fringe we have the best of both worlds – we have open space and a rural landscape, yet we still enjoy access to the services and facilities provided by a modern city.

But we cannot take our way of life for granted.

Rapid population growth is placing pressure on our natural environment as well as our city. A growing population is good for our local economy, but it also poses challenges that have significant environmental impacts. The ongoing demand for housing, increased resource use and waste production, puts enormous pressure on our environment.

Council is committed to making environmental sustainability a priority and must protect our diverse

urban and rural assets, manage the urban-rural interface and revitalise our inner urban area to use our resources more efficiently and reduce our everyday impact on the environment.

Sustainability is a global challenge. Many countries are tackling problems associated with increased resource use and greenhouse gas emissions, food security, threatened biodiversity and climate change. While we can think about these issues in the global sense, we must act locally.

This strategy provides a direction for Council and the community about how to build environmental considerations into everything we do so we start living and working in a more sustainable way.

It identifies seven priority areas of action including water, land, climate change, biodiversity, urban development and the built environment, waste management and resources recovery and change strategies.

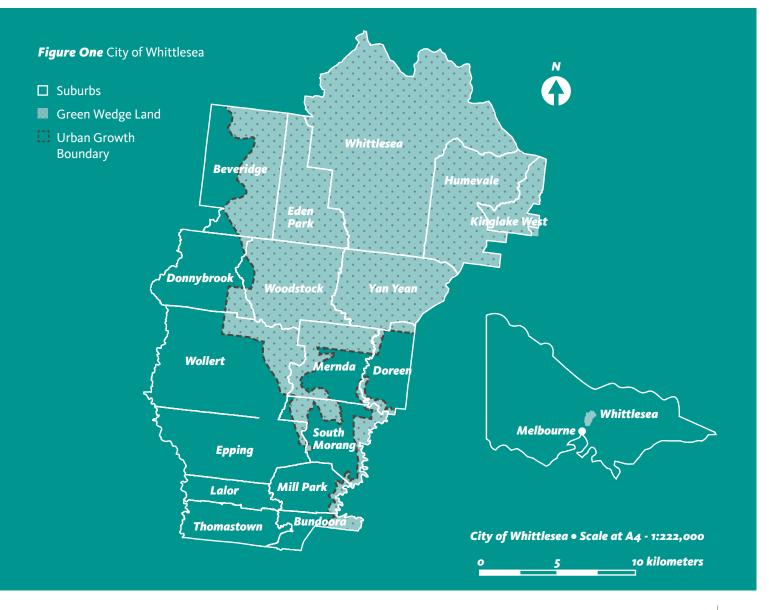
This strategy aims to make our city more environmentally sustainable to not only preserve our way of life but also ensure our natural assets are available for future generations.

# **Our Environment**

### Snapshot of the City of Whittlesea

The City of Whittlesea is located on Melbourne's metropolitan fringe, about 20km north of the CBD. It is one of the largest local government areas in metropolitan Melbourne, covering an area of approximately 490km². The area supports both urban and rural land uses. Most residents live in the urban areas in the south, including Epping, Thomastown and Lalor. There is a mix of land uses in these suburbs, which includes houses and schools, businesses and industry. As one of the fastest growing cities in Melbourne, the Victorian Government has defined an Urban Growth Boundary for Whittlesea to accommodate its growing population (see Figure One).

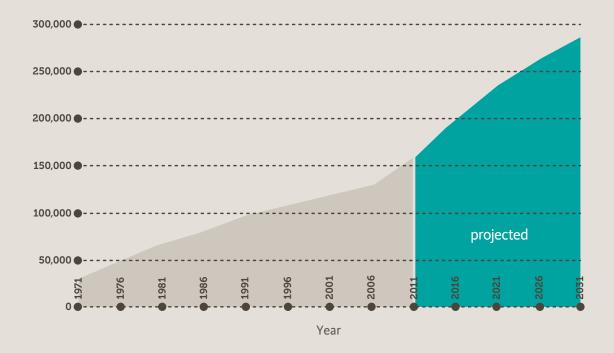
The rural areas of the north support various types of farming and grazing, along with rural living, water catchments, extractive industry, tourism and recreation, conservation and interesting landscape. This area, outside the Urban Growth Boundary, is defined as the City of Whittlesea's Green Wedge. It consists of open space and rural land protected throughout the metropolitan area to act as the lungs of Melbourne. The rural communities of Eden Park, Humevale, Kinglake West, Whittlesea, Woodstock (part) and Yan Yean make up the 31,730 hectares of the City's Green Wedge. Over half of the City of Whittlesea is rural, and the majority of rural properties are around five hectares in size. Agricultural uses include grazing and some dairy farming, a growing equine industry, and some fruit and vegetable production.



### A Fast Growing and Diverse Community

In June 2011 163,539 people called the City of Whittlesea home. During 2010 and 2011 the City of Whittlesea grew by 8675 residents (a 5.6 per cent increase), the second largest annual growth for a Victorian municipality. It is estimated strong population growth will continue, with 220,000 residents expected by 2020 (see Figure Two). <sup>3</sup>





# A Culturally and Linguistically Diverse Population

Of respondents to the *Annual Household Survey* 2011, just over 35 per cent were born overseas. Therefore, 23 per cent of survey respondents prefer to communicate in a language other than English. The proportion of new arrivals from overseas with poor English language skills was higher than national and state averages. Overseas-born residents were from more than 140 different countries – around 30 per cent of these where English is not the first language.<sup>4</sup>

# A Wide Range of Age Groups

Of residents, 10.6 per cent are 65 years and older – a lower proportion of elderly than the rest of metropolitan Melbourne. However, this age group is continuing to increase substantially. Between 2001 and 2011 residents aged 65 years and older increased by more than 80 per cent.

Of residents, 20.7 per cent are 15 years and under. This is a higher proportion of children than the rest of metropolitan Melbourne.

The average household size has decreased from 3.3 persons per household in 1997 to 3.0 persons per household in 2011.<sup>5</sup>



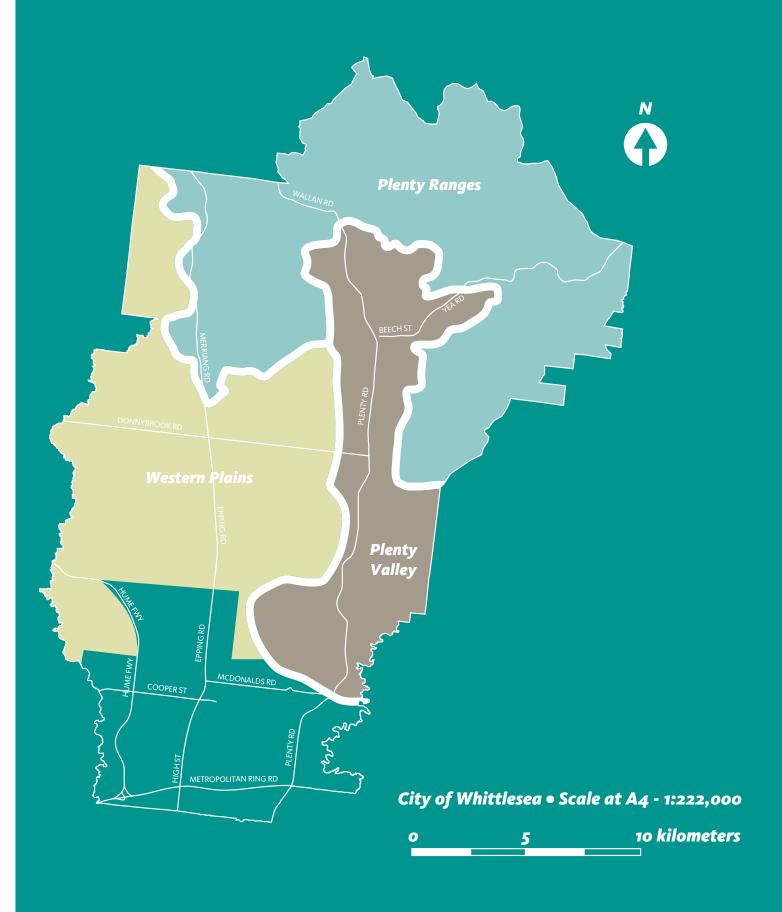
### The Landscape and Natural Environment of the City of Whittlesea

The City of Whittlesea has many assets of local and state environmental significance. The area features a wide range of landforms including the Western Basalt Plains, the Plenty Valley and the Plenty Ranges (see Figure Three).

The prominent waterways and ranges of the City of Whittlesea run in a strong north to south direction. The area ranges in elevation from Mt Disappointment in the far north at 792m above sea level, to the lower southern areas at less than 40m above sea level. In the north the slopes and valleys of the Great Dividing Range support both cleared agricultural land and forested areas like Kinglake National Park. These areas have high habitat value and are part of the Yan Yean, Merri Creek and Plenty River catchments.

The City of Whittlesea is also an area of high ecological diversity. To the west, the basalt plains area, known as the Western Basalt Plains, is within the Victorian Volcanic Plains bioregion. It features highly significant grasslands and grassy vegetation classes such as Plains Grassy Woodland, Plains Grassland and Plains Grassy Wetland Ecological Vegetation Classes. There are also iconic River Red Gums between 200 and 500 years old in the area. The vulnerable nature of these vegetation communities means they are of high conservation value and are priority areas for protection. Finally, the Western Plains area supports rocky knolls a significant ecological community consisting of low stony rises with high environmental value and which are rarely found elsewhere.







### Over 40 species of native fauna are recognised as species of state significance.

There are 11 species recognised by the Federal Government as nationally significant including:

- Golden Sun Moth (critically endangered)
- Growling Grass Frog (vulnerable)
- Plains Wanderer (vulnerable)
- Striped Legless Lizard (vulnerable)

These animals are all found within the nationally significant Victorian Volcanic Plains Grassland.

Unfortunately, extensive clearing and development has reduced the native flora found in the area. Of the 350 native plant species, 20 are recognised as having state significance. River Red Gums are a particularly important part of the landscape, have heritage value and provide habitat and food for native fauna.

Three nationally significant ecological communities (under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC)) are found in the City of Whittlesea:

- 1. Victorian Volcanic Plains Grassland (critically endangered).
- 2. Grassy Eucalypt Woodland of the Victorian Volcanic Plain (critically endangered).
- 3. Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains (critically endangered).

Figure Four shows a range of sites of environmental significance in the City of Whittlesea (see Figure Four).

To the east of the municipality is Plenty Valley, which runs from the Whittlesea township in the north, through the Plenty Gorge in the south. This area has a relatively flat central area cleared for agriculture, with a steep gorge in the south. The vegetation classes in the Plenty Valley area are varied and include swamp scrub, riparian forest, dry and valley sclerophyll forest habitats, mainly with Eucalypt canopy and a shrub understorey. However, much of the vegetation in this area is degraded, due to previous agricultural land uses and the infestation of weeds. In some areas

there are extensive stands of mature River Red Gums, but often with an understorey of exotic species that preclude successful regeneration.

The Plenty River, its tributaries, associated floodplains and river terraces are defining features of the Plenty Valley landscape. Areas around the river are important habitat. The corridor along the river between Mernda and the Gorge is a particularly significant habitat and several swamps also provide habitat for native waterbird, fish and riparian flora.





### **Increased Energy and Water Use**

Despite a general awareness of the need to use our resources more efficiently, water and energy consumption continue at long term unsustainable levels throughout the municipality.

Rapid population growth and associated increases in urban development contribute to increased energy and water use. The Australian tradition of everyone owning a single detached dwelling with a large garden is inherently inefficient in its use of resources. While the average number of people per household is decreasing, new houses are larger placing an even greater demand on natural resources.

The challenge for the City of Whittlesea is to accommodate a growing population while managing the environmental impacts. This means improving the design of our houses and encouraging households to use water and energy more efficiently.

Council itself is also a large consumer of water and energy. Council's consumption of water is mainly through building use and the irrigation of active and passive open space. The City of Whittlesea aims to demonstrate leadership in environmental sustainability by reducing its own water and energy consumption.

#### **Increased Greenhouse Gas Emissions**

A study of greenhouse gas emissions across the northern metropolitan regions of Melbourne<sup>6</sup> in 2009 revealed the City of Whittlesea produced about 2 per cent of Victoria's total emissions (2373kt CO2-e in 2005/6). With strong growth in population and development expected across the City, total emissions are likely to increase significantly (2998kt CO2-e by 2020).

The greenhouse gas emissions generated by Council's own activities are monitored and reported upon annually through a greenhouse gas inventory. In 2011, the three most energy-intensive activities within Council were the vehicle fleet (4.6 kt CO2-e), buildings (7.6 kt CO2-e) and street lighting (11.0 kt CO2-e). By improving the fuel efficiency of its fleet and switching to more energy efficient

appliances and lighting, Council can lower its energy use saving money and reducing its greenhouse gas emissions. Council has begun to tackle these challenges by switching its heavy vehicles to biodiesel; ensuring the Council fleet is made up of smaller vehicles; regulating for efficient street lighting in all new suburban streets; retrofitting existing Council buildings with efficient lighting; and building new community centres to a high sustainability standard. The challenge is to continue to expand these projects at a rate consistent with the municipality's growth.

Council also aims to reduce emissions across the municipality by promoting community activities that lead to lower energy consumption and by showing leadership in its own operations.





# Threats to Biodiversity, Rural Land and Scenic Open Space

The expansion of the Urban Growth Boundary and subdivision of farms into smaller properties have resulted in challenges to the sustainable management of our natural resources. A change in land use across the City of Whittlesea has been brought about by rapidly expanding populations and development. As development increases, remnant vegetation communities that provide habitat for native wildlife becoming increasingly fragmented, creating isolated populations of indigenous plants and animals. Weed invasion, feral animals, illegal vegetation removal and inappropriate land uses result in vegetation fragments that are reducing in size and quality over time. Overgrazing and a proliferation of farm dams on smaller allotments can be linked to erosion, a decline in water quality and the loss of productive topsoil.

Council supports rural landowners to manage their land more sustainably through incentive schemes such as the Sustainable Land Management Rebate Scheme and Environmental Works Grant. Council also engages with landowners through Pest Plant Local Law campaigns and by reviewing rural planning applications to ensure that development in those areas are sustainable and do not contribute to the further decline of our natural resources.

### Planning in our Established Areas

Our established suburbs are coming under increasing pressure from rapid population growth, ageing infrastructure and changes to the way we want to live, work and access services.

While a growing population is good for the local economy, it also places more pressure on public transport services, infrastructure and access to affordable housing. Higher fuel prices and the need to reduce carbon pollution and live more sustainably are also impacting on the way we live.

Council needs to manage this growth and change to preserve and enhance the liveability and amenity of our existing communities.

In the past, the planning of our established areas was dominated by heavy use of cars and a strong demand for low density housing, with an emphasis on residential development rather than mixed developement use.

Increasingly, residents desire easy access to public transport, other services and to work close to where they live.

Council must ensure that our land use planning system is modern and flexible enough to manage growth, increased demand and to deal with new challenges posed by an emerging low carbon economy.

The key to achieving these outcomes is to plan for higher density residential development and employment opportunities in and around activity centres and close to public transport.

Council needs to make better use of existing infrastructure but also plan for new infrastructure and services to meet the needs of these growing communities.

As a result, long-term strategic planning is being undertaken for these areas that includes significant input from the community. These plans emphasise the importance of healthy, liveable suburbs with access to employment opportunities, transport and quality services.

### **Planning for Growth Areas**

As one of Melbourne's six designated growth areas, the City of Whittlesea is at the forefront of urban expansion and needs to adapt to new population pressures.

New housing brings with it demand for transport and other community infrastructure in newly developed areas, and puts pressure on nearby services.

Designing new communities provides a unique opportunity to embed sustainability principles right throughout the strategic master planning process and into every aspect of the way new precincts operate, creating new and healthy residential communities.

New infrastructure should be designed with consideration of alternative energy and water use, including solar power use and water sensitive urban design including catchment management and stormwater harvesting.

Newly master-planned communities need to become more compact, 'walkable' neighbourhoods with access to diverse employment opportunities reducing the distance people need to travel to work, whilst also contributing to better health and wellbeing of their residents.

A range of housing options, including higher density housing closer to transport routes and to cater for different types of households must also be provided.

Council has a role in influencing the sustainability of development by working with developers, other planning authorities and the State Government to bring about better outcomes for new communities. This requires a community-based approach that identifies current needs as well as planning for the long-term to meet the needs of the next generation. It also requires assessing housing affordability beyond merely the cost of purchasing a home to encompass the true life-cycle costs of infrastructure both for individual households and the broader community.



## **Intergenerational Equity**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

# **Precautionary Principle**

We should not use a lack of full scientific certainty as a reason to not act to prevent damage to the environment where there are threats of serious or irreversible damage.



How is the world responding to sustainability? Local government operates within the context of a broader governance framework, including the international community, and federal and state governments.

# **Policy Context**

#### International

In 1987, the United Nations' World Commission on Environment and Development published *Our Common Future*, also known as 'the Brundtland Report'. The commission sought to unite nations on a sustainable development path and for the first time, sustainable development was placed firmly on the world political agenda.

In 1992, the Earth Summit in Rio de Janeiro brought together leaders from across the world to focus on the sustainability challenge. The Summit adopted *Agenda 21*, which was an action plan for all groups – the United Nations, governments, and major organisations – at all levels and in every area in

which people directly affect the environment. An organisation called the Commission on Sustainable Development was formed to implement the plan. In 2002, a second World Summit was held in Johannesburg to identify further actions for the implementation of *Agenda 21*.

Australia's commitment to *Agenda 21* is reflected in a strong national response to meet our obligations under this international agreement. Local governments also have an important role to play in helping society to become sustainable and protect the natural environment.<sup>8</sup>

#### Australia

In 1992, Australia developed the National Strategy for Ecologically Sustainable Development (NSESD), which tackles many key areas for sustainability action highlighted in *Agenda 21*. The NSESD directs governments to make policy and decisions which are more sustainable and which aim for long-term benefits over short-term gains.

Since the Earth Summit in 1992, working towards environmental sustainability has become an increasingly important goal for governments across Australia. 9

**Victoria** 

The Victorian Government outlines its overarching key sustainability objectives in *Our Environment Our Future – Sustainability Action Statement 2006*. This document identifies 150 priority sustainability initiatives to secure a sustainable state for future generations of Victorians. It works across five key action areas: climate change, protecting natural assets, efficient resource use, and reducing our everyday environmental impacts. It aims to help secure a sustainable Victoria, and make the environment central to the way all Victorians live, work and use our leisure time<sup>10</sup>.

At the state level, a range of policy and legislation governs each of the seven main themes addressed in this document. The separate *Key Draft Directions* papers detail the state policy and legislation relevant to each theme.

### The City of Whittlesea

Local governments have a close connection to their immediate community and environment. This means they are well placed to work towards environmental sustainability – through policy, direct action and working in close partnership with the local community.

As the local planning authority, manager of parks and open space, and operator of community infrastructure, Council is responsible for many activities which impact upon the environment. Yet as a minimum, local government is only *obliged* to meet identified international treaties and state and federal legislative requirements. However, local government also has the freedom to work more broadly towards the wider environmental aspirations of their community. The people of the City of Whittlesea have expressed their desire to protect the

local environment giving Council the opportunity to improve local conditions, citizens' wellbeing and protect the local environment.

Local government also has the unique opportunity to be leaders, by setting an example to the community. Although local government cannot mandate changes to an individual's lifestyle, it has a leadership role in building community awareness and promoting change in the way we utilise and conserve our environment.

# The role of Council in relation to sustainability is to:

- define a sustainability vision
- lead by example
- educate, engage, encourage and empower action within the workplace and the community
- advocate for change
- facilitate change
- develop and implement policy
- regulate
- aim for continuous improvement and learning
- provide environmental services, such as waste management.

## The challenges for Council:

- Commitment of all Council staff
- Embedding sustainability into the culture of the organisation
- Adaptation to and learning new ways of operating
- Demonstrating sustainability and setting an example.

## The challenges for the community:

- **Engage** with Local Government
- Reduce ecological footprint choose sustainable transport, reduce water and energy consumption, recycle, preference environmentally sound products and services
- Educate and encourage action by others.



Council's role is also guided by the principles and directions articulated in its the *Whittlesea 2025 - Strategic Community Plan*. The Strategic Community Plan identifies six 'Future Directions' including 'living sustainably'. This section directs that a sustainability strategy, informed through community consultation, is developed to ensure we live sustainably in our urban and rural areas.

### **Future Directions**

There are six future directions to follow to reach our 2025 destination:

- Inclusive and engaged community
- Accessibility in, out and around our City
- Growing our economy
- Places and spaces to connect people
- Health and wellbeing
- Living sustainably.

Everyone can play a role in helping reach our vision. Council can be a **provider** and do what is needed or an **advocate** that works on behalf of its communities or a **facilitator** that supports the actions of others.

# Our Guiding Principles

As a community, we will be guided by the following principles. Where there are choices or decisions to be made we will use these principles to help us choose wisely. In all aspects of our lives and in all that we do we will endevour to:

### Be innovative and sustainable

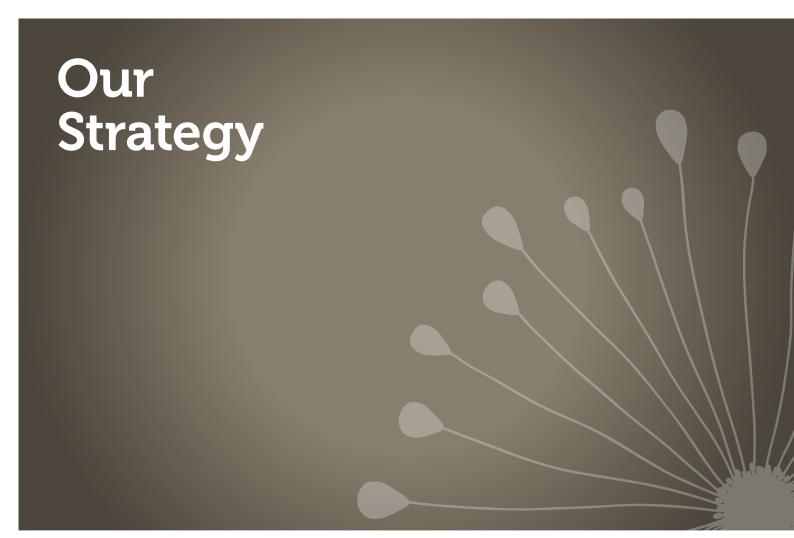
Have the courage to look for new ways and try new things, step up and lead and take risks if it means making a difference. The decisions we make today will not diminish the potential of Our City for our children and the generations to come.

# Be inclusive, get involved and participate

Everyone has something different to offer and there are many ways to be part of our community. We value difference, welcome participation, build tolerance, understanding and empathy through inclusion.

# Show respect, have integrity and be honest

We respect our past, our environment, each other and all our differences. We will tell it like it is; say what we do and do what we say.





### The City of Whittlesea aims to:

- Protect our natural environment
- Adapt to climate change
- Save water and energy
- Reduce waste
- Provide affordable housing
- Secure our food supplies
- Change behaviour.

The City of Whittlesea **Environmental** Sustainability Strategy 2012-2022 (ESS), explores the current and emerging sustainability issues facing the City of Whittlesea. It sets the environmental goals for the future and proposes actions that will help to reach these goals.



This strategy addresses seven main themes that promote the developement of a sustainable community and reduce our impact on the environment. They are: water, biodiversity, land management, climate change, urban development and the built environment, waste management and behaviour change strategies.

The ESS replaces the City of Whittlesea's Local Conservation Strategy (LCS) 2000 which was the framework for all local conservation and environmental activities. Most of the actions in the LCS 2000 have been implemented or need to be reviewed.

The ESS provides the City of Whittlesea with a new framework to work towards a sustainable city that supports and protects biodiversity, ecological processes and a healthy and sustainable population.

The ESS will address environmental sustainability at the local level and help guide our activities into the future. The strategy is a 10 year plan with a review process after five years.

Environmental sustainability aims to address social, economic and environmental goals in a way that benefits all people and generations. In this document, the environment is prioritised and supported by sustainable social and economic goals.

The strategy has been developed through an extensive consultation process involving stakeholders, key managers and council staff, environmental and cultural groups and local community members.

# **Our Priority Areas**

# Water

#### Aims:

- Reduce Council water use
- Reduce community water use
- Maintain and improve the ecological health of waterways.
- sustainable water management water conservation water quality •
  water cycle water supplies waterway urban growth climate change •



Water is an essential resource for sustaining life. It is a renewable resource, but its availability and quality is highly dependent on environmental influences, land use, human activities and consumption.

Water quality and supply is under pressure due to a changing climate, inefficient use and population growth. There are different challenges and opportunities to recognise when managing water sustainability across the City of Whittlesea.

Water sustainability requires the integrated management of the whole water cycle. This includes water from rain and storm events, to water use in agriculture, business and our homes, and wastewater.

In a growing municipality, the focus on sustainable use of our water resources is imperative to ensure water security into the future.

#### **Our Waterways**

The City of Whittlesea has three main waterways – Plenty River, Merri Creek and Darebin Creek – all of which are part of the larger Yarra River Catchment that flows into Port Phillip Bay. These waterways are healthier in their upper rural reaches than those surrounded by urban development. Waterways are important ecological, cultural, aesthetic and recreational components of the City of Whittlesea landscape.

Figure Five illustrates the waterways of the City of Whittlesea.

### City of Whittlesea • Scale at A4 - 1:222,000



#### Merri Creek

Merri Creek provides a continuous corridor with strong environmental, heritage and recreational values. It is home to key vegetation communities, archaeological features, and has an important role in the park system of northern metropolitan

The Plenty River has a largely rural catchment, but lower reaches are dominated by urban land use and are popular for passive recreation.

Plenty River supports threatened flora values (particularly at Plenty Gorge), and has two major storages Yan Yean Reservoir and Toorourrong Reservoir.

#### Darebin Creek

Though heavily urbanised in its lower sections – with weed invasion, litter and pollution problems – Darebin Creek is still home to a wide range of indigenous flora and fauna. It provides open space and recreation opportunities for urban residents. (Darebin Creek Management Committee)



Water Use 2006-07 City of Whittlesea (Yarra Valley Water)			
Residential	8,604,564 KL		
Non-residential	2,294,844 KL		
Total	10,899,407.9 KL		

### **Our Water Supply**

The City of Whittlesea receives drinking water from Melbourne's water supply network. The first of Melbourne Water's closed catchment reservoirs<sup>11</sup> Yan Yean Reservoir is located within the municipality.

However the City of Whittlesea receives its supplies from Sugarloaf Reservoir. Sugarloaf Reservoir is a holding reservoir with no catchment of its own. It receives all its water from Maroondah Reservoir and the Yarra River pumped via Yering Gorge Pump Station. Sugarloaf and Maroondah Reservoirs are supplied from the Thomson Dam via a series of pipes, which also run through Cardinia and Silvan Dams. At times of critical need, water is also piped in from the Goulburn River via the North-South Pipeline.

**Threats and Barriers:** There are key threats and barriers to recognise when managing water sustainably including:

Climate Change. Since the late 1990s environmental conditions throughout Victoria saw Melbourne's water storages plummet by 2009 to their lowest levels since the Thomson Dam was finished in 1984. Yet from 2010 to 2012 Victoria also experienced catastrophic flooding. Climate change is expected to bring changing rainfall patterns, including reduced overall rainfall and increased drought. Yet when it does rain, the intensity will increase resulting in more frequent storms and floods.

- In addition to increasing demand for water due to a growing population, water supplies will be under pressure as the climate changes.
- Population Growth. An increasing population inevitably leads to greater demand for water. Over the past 10 years, Melbourne's population grew exponentially, placing pressures on the long-term sustainability of water supplies during a period of drought.
- Increasing Urbanisation. Population growth brings
  with it an expansion of housing, roads and urban
  development. This development creeps into
  rural land threatening the health of waterways
  and increasing habitat loss and fragmentation.
  Increasing urbanisation leads to more hard surfaces,
  which in turn increases the amount of rainwater
  collecting and flowing into rivers and creeks, rather
  than soaking into the earth. As water flows over
  hard surfaces it picks up contaminants and dirt,
  which then enters and pollutes waterways.
- Inefficient Water Use in Agriculture. Water may
  be misused in agriculture via the construction of
  illegal dams, and absentee landholders or lifestyle
  landholders who may have limited understanding
  of water efficiency in an agricultural context. A lack
  of regulation controlling the construction and use
  of farm dams for stock and domestic purposes also
  means that aspects of water use are not monitored
  or managed for efficiency. There is a need for policy
  to guide management of these dams.

**Opportunities:** The City of Whittlesea has a great opportunity to work with the community and other authorities to look after water resources and waterways. As the creator of local planning policies, the Council can encourage a sustainable water future through planning. As the owner, manager and provider of local public buildings, Council can also make efficiency improvements in these buildings.

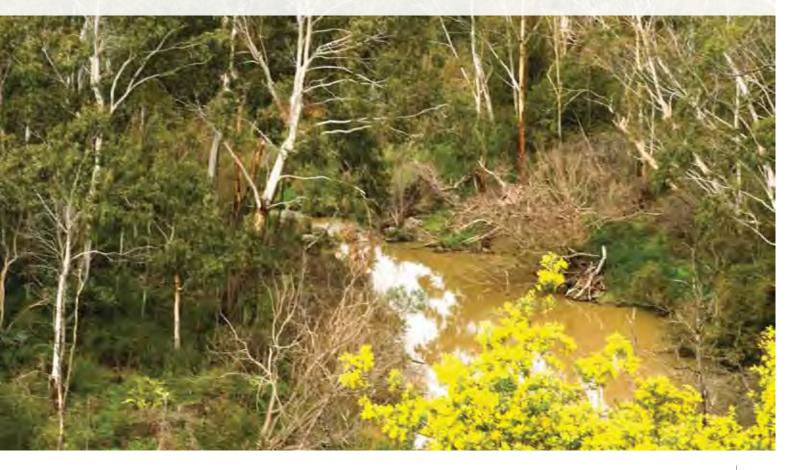
#### Opportunities include:

- Ensuring water sensitive urban design is part of new and existing urban development
- Ensuring water efficiency is considered as an integral part of building design, including setting standards to maximise the use of water efficient fittings and appliances, water tanks and grey water systems
- Using more alternative water sources (rain, storm and grey water) in Council operations
- Promoting sustainable agricultural practices, including reducing runoff of pollutants and sediment into waterways



- Advocating to State and Federal Governments for investment in integrated catchment management
- Encouraging the community to take a leadership role in sustainable water management
- Working with water authorities to develop a shared vision for the management of catchments and waterways.

In 2008, the State Government rolled out the 'Target 155 program', which aimed to reduce household water consumption to 155 litres per person per day. This was a highly successful behaviour change program and saw growth in water efficient behaviours and technologies in response to the threat of a water constrained future.



# **Our Priority Areas**

# Land

#### Aims:

- Maintain and improve rural land health and productivity
- Achieve greater community engagement and awareness in sustainable rural land management.

land degradation • erosion • vegetation loss • urban sprawl •
weeds • management • ecosystem services •



Land is a fragile resource that people use in a variety of ways. Some land in the City of Whittlesea is intensely developed, providing housing and employment while other areas are less intensely developed and fulfil very different, but important economic, social and environmental purposes, or 'ecosystem services'. These include:

- food production, farming and associated industries
- spaces that support natural land systems and processes
- views and landscapes for the community to enjoy
- protection of water catchments and supply
- tourist attractions and opportunities
- natural resources and extractive industries

• cultural, spiritual and historical values.

Urban development, agricultural activities, land use change and development and poor land management practices can lead to:

- soil erosion and deposition
- soil degradation increased salinity and loss of soil structure
- ecosystem change degradation, loss of native vegetation, loss of biodiversity
- soil contamination.

These activities can lead to diminished land productivity and a reduced capacity of the land to maintain important ecosystem services.

**Sustainable land management** means managing the land for social and economic gains without damaging its quality, natural values and the ecosystem services it provides for the community.

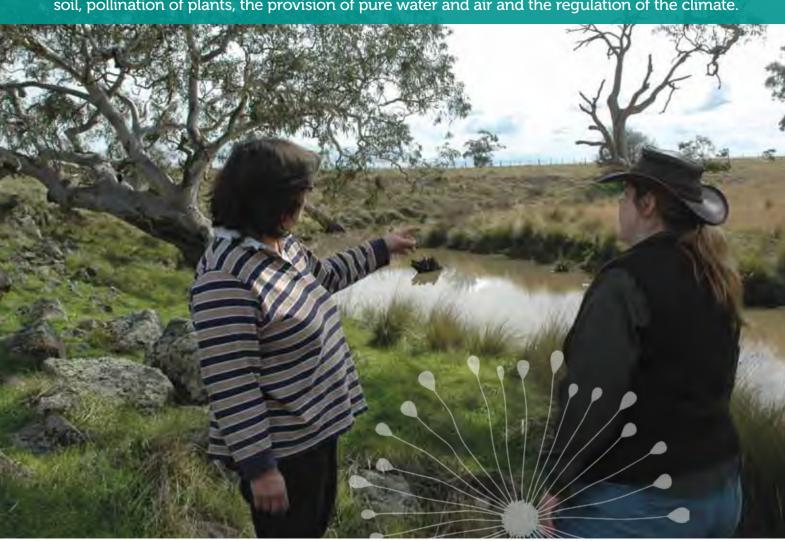
There are a range of factors that influence the way land will be managed in the City of Whittlesea including:

- Population Growth. Both urban growth and an increase in 'tree changers' seeking a rural lifestyle, has significantly changed use of agricultural land. As a result, productive rural land is often taken out of production impacting the locally based agricultural industry.
- Climate Change. Predicted changes in rainfall and temperature will reduce access to water and change distribution, intensity and types of farming. As farmers try to adapt to keep land productive, and farm more intensely, productive

- value of land may reduce. Increased frequency of extreme weather events such as storms will also impact on farming through increasing erosion and damaging crops.
- Food Security. Increasing population means we require increasing food production to ensure the availability of adequate quantities of safe, nutritious food. Challenges to meeting these increased needs include the reduction in rural productive land available for food production due to increased urbanisation of marginal farmlands and rising oil prices. These pressures may increase the cost of producing and buying food. The challenge is to secure sustainable food production to meet the needs of a growing population while ensuring efficient production that leaves a lighter environmental footprint.

Ecosystem Services are beneficial services and resources provided by natural ecosystems that are necessary for people and the natural environment.

Examples include the decomposition of waste and formation of soil, carbon sequestration in soil, pollination of plants, the provision of pure water and air and the regulation of the climate.



The City of Whittlesea works with government agencies, other stakeholders and the broader community to manage a broad and complex range of land issues.



While the City of Whittlesea is increasingly characterised by its expanding urban areas and urban-rural fringe, well over half of the municipality remains rural. Rural areas support various local farming enterprises, lifestyle properties, water supply catchments, extractive industry, conservation areas and tourist attractions. Most of the land within the City of Whittlesea is privately owned, however, a significant portion is reserved for parkland and state forest.

Within the municipality there are three distinct landscapes – the Plenty Valley, Plenty Ranges and the Western Basalt Plains, each requiring different management approaches (see Figure Three – page 8).

**Threats:** Historically poor land management activities have contributed to land degradation in the City of Whittlesea. Threats to land health include:

- The removal of native vegetation stabilising the soil
- Erosion, particularly around drainage lines and local waterways

- Bushfire related impacts including erosion and sedimentation of waterways where vegetation has not recovered
- Salinity due to the removal of native vegetation for urban development
- Weeds and animal pests spreading and impacting on native vegetation and farm pastures
- Climate change reducing rainfall quantity, increasing rainfall intensity and creating hotter, drier conditions, which increase the fire risk
- Overstocking livestock resulting in soil compaction, erosion and run-off, dry-land salinity, loss of vegetation, loss of soil moisture and carbon and reduced water quality
- Urban development pressures on rural land
- Inappropriate land use such as illegal vegetation removal, rock removal, overgrazing or land filling
- Neglect and poor land management by absentee landholders
- Changes from sheep stocking to cattle stocking.

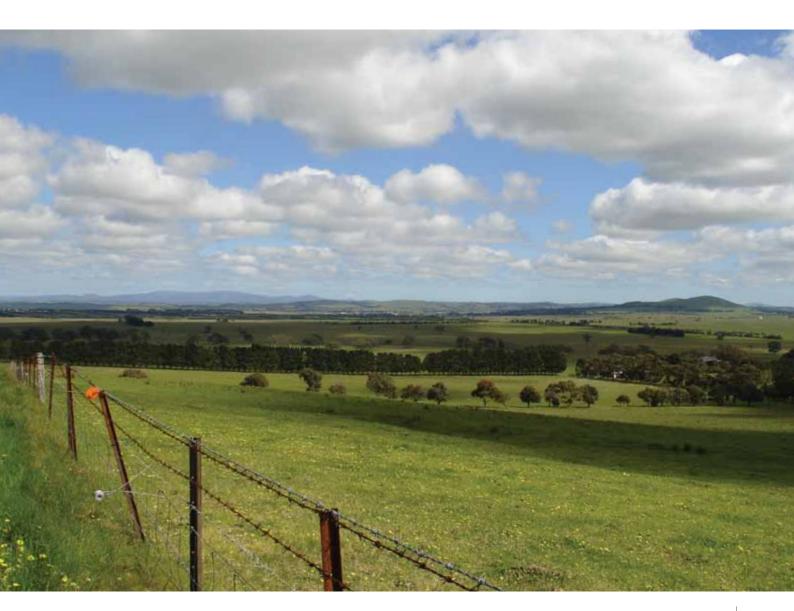
**Barriers:** There are barriers that prevent sustainable land management practices. These include:

- Conflicts between rural and urban land uses
- Limited resources available for land management extension officers, reducing the ability to provide support for landowners, or act on illegal activities
- Uncertainty around the projected impact of climate change on the land
- Reduced access to reliable water supplies
- Limited knowledge and ability for landholders to adapt to sustainable land management practices
- Declining farm viability as costs increase and returns decrease.

**Opportunities:** There are many opportunities to make the use and management of land in the City of Whittlesea more sustainable. Approaches range from education of landholders to regulation. These include:

Working with farmers, lifestyle and absentee landholders

- Promoting the role of local land management groups in sustainable land use
- Using local planning rules including land management plans to give landholders the opportunity to learn more about their land
- Supporting both established and new farmers to diversify their operations, integrating innovative and sustainable farm practices
- Encourage farmers with skills in sustainable farming practices to establish within the municipality
- Promoting local food production and supply
- Encouraging the uptake of carbon and eco-markets as alternative income for farmers to keep urban fringe properties viable
- Tightening regulations to stop illegal land management activities to instil greater commitment to better land management and reduce the impact of illegal activities
- Strengthening planning tools to better protect land health.



# **Our Priority Areas**

# Climate Change

#### Aims:

- Reduce greenhouse gas emissions generated by Council
- Reduce greenhouse gas emissions generated by the community
- Foster effective governance on climate change
- Adapt to the effects of climate change.
- adaptation mitigation greenhouse gas emissions planning •
  energy efficiency zero net emissions transport buildings infrastructure •



A growing body of climate science has made it evident that we can expect a change to our climate due to rising greenhouse gas emissions generated by human activity. Reports by the Intergovernmental Panel on Climate Change<sup>12</sup> and the Garnaut Climate Change Review<sup>13</sup> concluded that climate change due to human activity was both irrefutable and unavoidable.

An increase in global average temperature of two degrees celsius is now unavoidable and will cause changes to weather patterns all over the world. Humidity will increase in some areas, global wind patterns will change, the sea level will rise, and in some parts of the world, storms, fires, droughts and floods will become more frequent and severe.

Australia is already observing climate changes due to increased greenhouse gas promoting the warming of the planet and changes in climate. Increasing average temperatures and decreased rainfall have contributed to the severity of recent natural disasters, decreases in agricultural productivity, shifts in the habitats of cold climate species and decreasing rates of coral growth in the Great Barrier Reef.

Action to tackle climate change is focused on:

**Mitigation** - reducing greenhouse gas emissions to minimise the impact of climate change.

**Adaptation** - preparing for climate changes caused by current and projected increases in greenhouse gas emissions.

Critical risks for Australia include rising sea levels, severe and recurring drought, and more heatwaves, floods and bushfires.

In Victoria, we are becoming increasingly aware of our community's vulnerability to climate change. Recent bushfires and heat events of tragic proportions and the breaking of a 13 year drought by record rains and widespread floods have focused these concerns.

The continuation of some level of climate change is now certain, however, the nature and extremity of the changes can still be mitigated. Local government and community actions are increasingly critical to reduce greenhouse gas emissions and to adapt to the impacts of climate change.

The City of Whittlesea's approach to climate change acknowledges Council's responsibilities in dealing with this issue and identifies key actions to meet this challenge.

The City of Whittlesea has direct responsibility for greenhouse gas emissions generated by all Council operations, services and purchases. Council will also influence community emissions through its role as a local government and planning authority. Council policies affect transport priorities, the type and nature of development, the built form and the urban fabric of the municipality. The City of Whittlesea will educate and raise awareness of household emissions, encourage individuals to adapt lifestyle habits and to become more resilient to climate change.



Global average temperatures in 2010 were equal highest temperatures on record. The 2000s were the warmest decade on record.

In Melbourne, it is likely that average temperatures in 2070 will be like those currently experienced in Echuca.<sup>14</sup>

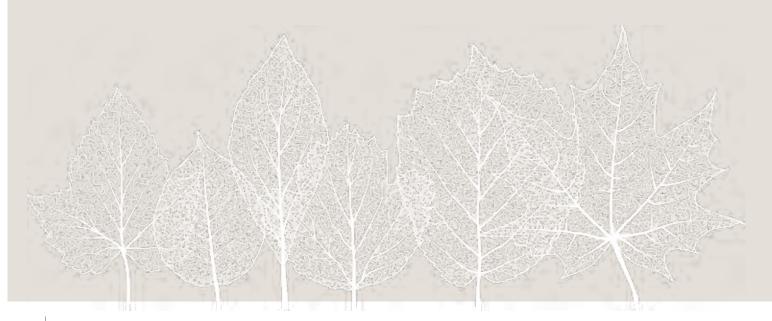
Figure Six Expected Climate Changes for the Port Phillip and Westernport Region Under Lower and Higher Emissions Growth<sup>15</sup>

By 2070, seasonally, the region can expect to:						
	Lower emissions growth	Higher emissions growth				
Spring	1.4°C warmer 12% less rain	2.6°C warmer 21% less rain				
Summer	1.5°C warmer 4% less rain	3°C warmer 7% less rain				
Autumn	1.3°C warmer 3% less rain	2.6°C warmer 5% less rain				
Winter	1.1°C warmer 6% less rain	2.1°C warmer 11% less rain				

"Climate change will affect most of the factors that influence bushfire – fuel load, land cover pattern, sources of ignition, extreme weather, and management practices." <sup>16</sup>

"Extreme fire days will be more frequent and fires will be larger and more intense." 16

"The climate system appears to be changing faster than earlier expected ... climate change is consistently moving toward more rapid and severe impacts." 17



**Threats:** Climate change brings particular concerns for the municipality including:

- Increases in the intensity and frequency of bushfire
- Increased temperatures and more frequent and intense heat waves, particularly threatening vulnerable groups such as the elderly and very young (see Figure Six – page 30)
- Degradation of civic infrastructure from increased heat and decreased rainfall
- Reduced rainfall and water security impacting upon people, rural production and the natural environment (see Figure Six – page 30)
- Increased risk of pest and disease outbreaks.

**Barriers:** There are barriers that continue to prevent action to avoid dangerous climate change include the need for:

- Strong leadership on climate change action across Australia and community support to make changes
- Coordination between local, State and Federal Government decisions and investment to reduce the impacts of climate change
- Comprehensive knowledge and trained people to promote action within organisations
- Reducing community indifference in response to mixed messages about climate change.

**Opportunities:** Many of the opportunities to reduce the severity of climate change have additional benefits, such as reducing energy costs and creating higher quality homes and neighbourhoods.

The opportunities include:

- Building houses and buildings that are better suited to our climate, reducing dependence on heating and cooling appliances
- Retrofitting existing housing stock with energy efficient appliances and fixtures
- Building neighbourhood infrastructure that reduces dependence on private vehicles
- Creating opportunities for businesses to reduce energy consumption, greenhouse gas emissions and their operating costs
- Improving access to renewable energy within the municipality
- Identifying the likely implications of unavoidable climate change in our area to better prepare for these conditions
- Supporting climate change action groups and community education initiatives
- Utilising whole-of-life cycle analysis to inform Council's purchasing decisions and reduce emissions.



# **Our Priority Areas**

# **Biodiversity**

#### Aims:

- Protect native vegetation
- Maintain and improve local biodiversity
- Protect species of significance
- Increase appreciation of the natural environment in the community.

• diversity • flora • habitat • fauna • ecosystem services • nature •





### Ecosystem services include:

- clean air produced by plants
- clean water filtered by vegetated landscapes
- recycling of organic waste by plants and animals
- control of pests by natural predators
- transport of seeds and pollination by insects, birds, mammals and reptiles.

Our cities rely on the resources provided by the natural environment for sustainability and longevity. However, as cities expand to accommodate new development, more pressure is placed on the natural environment, in particular, biodiversity.

Protecting biodiversity is vital to life on earth. It helps sustain the earth's life support systems (ecosystem services) that provide us with clean air and water, fertile soils and food.

Biodiversity also helps our farms to produce food and fibres, provides an important source of scientific information and gives us natural places to explore and enjoy which may be of cultural and spiritual significance.



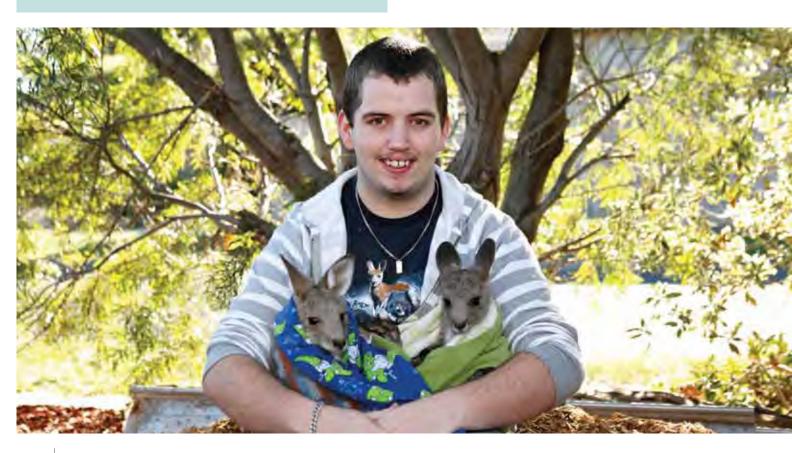
Biodiversity is the variety of all life on earth, including the different plants, animals, and microorganisms, their genes, and their terrestrial, marine and freshwater ecosystems.

### Biodiversity in the City of Whittlesea

The City of Whittlesea is fortunate to be home to a range of very significant flora and fauna species. The diversity of plants and animals ranges from the native grasslands of the Western Plains to the heavily forested areas in the foothills of the Great Dividing Range. However, clearing has reduced native vegetation to approximately one third of its size prior to European settlement.

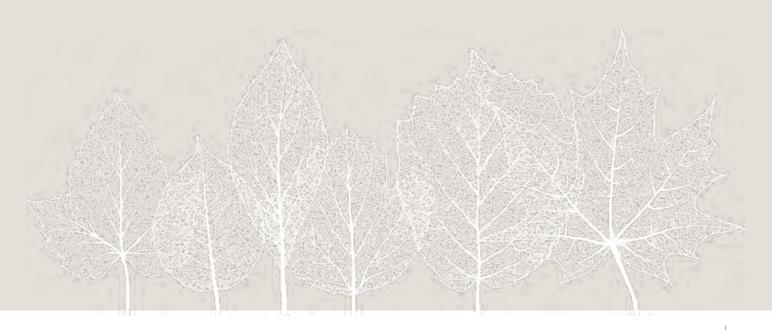
A large proportion of the native vegetation remaining in the City of Whittlesea is classified as endangered, threatened or vulnerable under State or Federal legislation. Of national importance are areas of Native Grasslands and Plains Grassy Woodlands that form part of the Victorian Volcanic Plains. Many of these areas are under significant pressure from urban expansion and sustainable precinct planning is required to ensure their long-term protection and viability.

Local waterways such as the Plenty River, Darebin and Merri Creeks and associated tributaries play an integral role in the landscape, forming habitat connectivity that sustains many rare flora and fauna populations, such as the Growling Grass Frog. Significant environmental sites are scattered throughout the municipality fragmented by a diversity of land uses. Increasingly, waterways provide the only connectivity between sites to allow for the movement of animals across the landscape.



# **Biodiversity Across Land Forms in the City of Whittlesea**

Land form	Western Basalt Plains	Plenty Valley	Plenty Ranges
Bioregion	Victorian Volcanic Plains	Highland Southern Fall Victorian Volcanic Plains	Highland Southern Fall
Ecological vegetation communities	Plains Grassy Woodland Plains Grassland Plains Grassy Wetland Grasslands communities, previously extensive and now fragmented, of high conservation value. River Red Gums.  Rocky Knolls Low Stony Rises unique, high environmental value	Plains Grassy Woodland Valley Grassy Forest Swamp Scrub  Varied swamp scrub, riparian forest, dry and valley sclerophyll forest habitats dominated by Eucalypt species and a shrub understorey.  River Red Gums.	Riparian Forest  Swampy Riparian Complex  Grassy Dry Forest  Damp Forest  Wet Forest  Herb Rich Foothills  Valley Grassy Forest  Heathy Dry Forest  Slopes and valleys with rural and forested areas.  Small patches of wet and damp sclerophyll forest.  Higher elevations with dry forest with Eucalypts, shrubby understorey and ground herbs. Exposed slopes with diverse wattle, pea, lily, grass species.
Significant features	Merri Creek Darebin Creek Craigieburn Grasslands Bald Hill Grasslands Hernes Swamp	Plenty River (key habitat corridor)  Degraded due to grazing and weed invasion.	Mt Disappointment State Forest Toorourong Reservoir Great Dividing Range Yan Yean Catchment





**Threats and Barriers:** The ability to maintain and improve biodiversity within the City of Whittlesea is impacted by a range of factors including:

- Loss of natural habitat and biodiversity due to urban expansion into fringe areas
- Fragmentation of habitat due to land development and the incremental clearing of native vegetation across the landscape
- Populations of native fauna can be isolated from other breeding communities compromising genetic diversity and the long-term survival of species
- Degradation of the edge of habitat patches through exposure to urban pressures such as weeds, pests and human activity ('edge effects')
- Increased clearing of native vegetation without a permit post February 2009 bushfires resulting in more vegetation being cleared without adequate monitoring

- Increased fire severity in the natural environment impacts flora and fauna, and the ability of vegetation to regenerate
- Changing climate and rainfall patterns, increased bushfire risk, and droughts may provide more favourable conditions for weed and pest animal invasion. Native species that cannot respond to changed conditions could face extinction
- Poor water quality due to urban or rural runoff, and increased nutrients and sediments, affects fauna and flora living in or near waterways
- The removal and dumping of soil and rocky materials, particularly in rocky knoll habitats
- Vegetation removal due to illegal activity or land use changes can lead to erosion, poor water quality, loss of habitat and weed problems
- Soil compaction from inappropriate use of off-road vehicles and trail bikes in conservation areas.

**Opportunities:** There are opportunities for maintaining and improving biodiversity within the City of Whittlesea including:

- Using landscape scale planning to protect significant environmental areas from urban growth
- Identify areas to be protected, and ensure habitat areas remain linked by vegetation corridors
- Manage key threats to biodiversity such as pest, plant and animal invasion, edge effects and climate change. Advocate for long-term protection of key environmental assets in the urban growth planning process
- Protecting urban open space networks (creek and river corridors, parks, sporting fields) and our own gardens via targeted programs
- Maintaining buffers between waterways, floodplains, and wetlands and strengthening local planning policy and open space strategies
- Reviewing the Municipal Strategic Statement and Whittlesea Planning Scheme zones, overlays, and schedules covering areas of ecological significance and natural value
- Ensuring native vegetation offsets are located within close proximity to the land where vegetation has been removed
- Work with the Department of Sustainability and Environment BushBroker Scheme and other

- relevant schemes to direct strategic net gains in native vegetation throughout the municipality
- Improving environmental compliance with a proactive education and compliance program targeting the dumping of illegal fill and the spread of noxious weeds
- Reviewing Council's Open Space Strategy 2006
   to recognise new sites within the reserve system
   – 'bushland' and 'indigenous vegetation' which
   increase the quality and extent of native vegetation
   and habitat across the municipality
- Planting trees to provide carbon storage and support carbon markets that allow for alternate biodiversity revenue for landholders
- Strengthening stakeholder relationships to improve biodiversity outcomes for the City of Whittlesea and help deliver local programs
- Updating biodiversity information to gain a detailed picture of biodiversity across the municipality to ensure the impact on the landscape is fully considered in planning applications
- Identifying private properties in rural parts of the municipality with high biodiversity values and work with landholders to manage and protect those assets
- Periodically review grant schemes for improved biodiversity on private property.



## **Our Priority Areas**

# Urban Development and the Built Environment

#### Aims:

- Promote environmentally sustainable outcomes in urban development through planning for:
- Appropriate housing density
- Sustainable transport options
- Sustainable policy and planning
- Green buildings (Council and community)
- Sustainable public realm improvements.

- consolidation
  - sprawl •
  - transport •
- infrastructure
  - strategic •





The way that a city, its suburbs and buildings are designed and built can have a large impact on long-term environmental sustainability, how its inhabitants live, work, commute and participate in recreational activities.

The potential for urban growth to exceed a city's capacity and expand into the surrounding natural environment or rural land in the absence of sustainable precint planning, has been common in the recent past. This has led to wide-spread, low-density urban areas where people are predominantly car dependant to access employment and services. In urban sprawl areas, often there is a focus on road building over improving infrastructure for public transport, cycling and walking. It also results in a loss of the rural land and open space that surrounds a city and is important for its aesthetic, recreational and productive value.

Sustainable urban planning can guide where people live and work, and how they travel within their city. As Melbourne further develops as a sustainable city, innovative planning of urban growth on the city fringe is critical.

Urban planning that considers sustainability in design influences the development of compact, interconnected cities where:

- energy and water resources are used efficiently
- there is a diversity of transport options
- there is increased access to local employment and community services.

Sustainable urban planning focuses on:

- Consolidation of existing urban areas with accessible infrastructure and community services, such as public and private transport, open space, electricity, water and drainage, schools and health centres
- Planning for walking, cycling, and public transport facilities in new neighbourhoods to reduce reliance on cars
- Water sensitive urban design to treat and slow the speed of stormwater running into waterways
- Buildings which minimise energy, material and water use, and waste generation
- Design which encourages community interactions
- Conservation of plant and animal habitats and corridors
- Easy access to shops, health and financial facilities.

Well planned communities have less impact on the natural environment, are easier to live in and are built to be resilient to the impacts of climate change and rising fuel costs while fostering increased community connectedness.

Local governments have the main role in land use planning, and state governments play a key role in the strategic planning of communities.

#### **Urban Development**

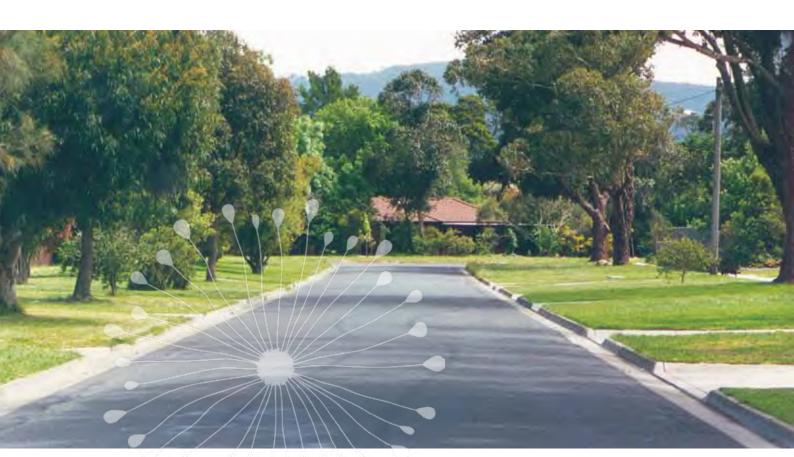
The City of Whittlesea is a growth area and one of the key intersections where metropolitan Melbourne meets rural Victoria. It is characterised by a mix of established suburbs in the south, emerging areas in the centre, and rural areas in the north.

The southern part of the municipality features:

- Established suburbs such as Lalor, Thomastown, Bundoora, Epping and Mill Park
- Low-density residential development characteristic of the 1960s to 1980s
- Industrial areas such as parts of Thomastown
- Neighbourhood-level, street-based activity centres
- Larger retail centres in Epping Central and South Morang
- Pressure for infill development and revitalisation, for example, University Hill.

The central and northern parts of the municipality feature:

- Rapid urban growth including the communities of Mernda, Doreen, South Morang, Epping North, the Cooper Street employment area, University Hill at Bundoora, and the Whittlesea township.
- Rural and agricultural areas including Whittlesea, Woodstock, Donnybrook, Wollert, Eden Park, Kinglake West, Humevale and Yan Yean.





**Threats and Barriers:** Urban development that is not driven by forward planning can threaten the development of sustainable communities. Some key threats and barriers are:

- Population increases leading to pressure for growth, particularly at the urban fringe
- Sustainability is often not considered in the early stages of planning and development in both 'infill' and growth area development
- Growth negatively impacting on the natural environment through loss of trees and habitat
- Transport infrastructure not provided in time to meet the needs of communities
- Inadequate local services and employment opportunities provided near new housing resulting in longer commutes for residents
- Public transport, such as heavy and light rail, not provided resulting in a car dependent community
- Local government initiatives and policies on sustainable design systems and programs are not supported at the state level.

**Opportunities:** Local government has the opportunity to address sustainability through its role as a planning authority and as a responsible authority in development matters. The opportunities to consolidate growth within existing urban areas and to ensure new growth areas are well planned are important to ensure long-term sustainable communities.

The development of new urban areas presents opportunities to:

 Use alternative water supplies, such as large scale rainwater, third pipe infrastructure, on-site water treatment and reuse

- Use water sensitive urban design to treat and control stormwater to improve the health of our waterways
- Use environmentally sustainable design for passive heating and cooling of buildings such as, maximising sun access through appropriate building orientation
- Provide infrastructure to support cycling and walking and access to buses and trains
- Extend bicycle path network from Mernda to Whittlesea
- Advocate for the upgrade to the South Morang train line to Mernda, and from Lalor to Epping North, to allow for increased public transport use
- Protect habitat and provide connected areas of open space, particularly along creek lines
- Use the Planning Scheme and permit decision processes to encourage or require sustainable design in small, medium and large scale developments
- Design sustainable public facilities and buildings, such as sports pavilions and libraries
- Encourage business development providing local employment for residents
- Encourage working from home with the introduction of the National Broadband Network
- Meet and exceed 6-star energy rating for all new homes and renovations
- Encourage infill development within established residential areas to limit urban expansion into the rural interface.

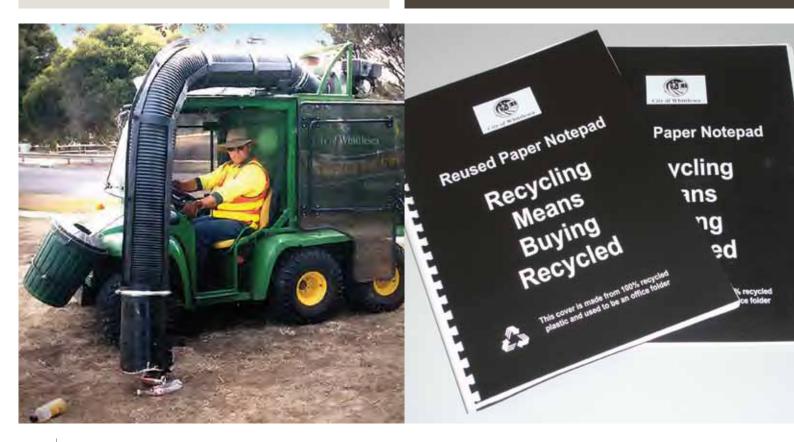
## Our Priority Areas

# Waste Management and Resource Recovery

#### Aims:

- Reduce waste to landfill and increase the reuse and recycling of waste when this is the most sustainable and beneficial option
- · Reduce litter and the illegal dumping of rubbish
- Increase the purchase of environmentally friendly products by Council.

- sustainable recycle
  - reuse reduce
    - waste •
- environmentally preferable products
  - litter lifecycle •



The 60,000 households and businesses within the City of Whittlesea generate more than 85,000 tonnes of municipal waste, litter and recyclable materials each year.

Waste is defined as any product or substance that has no further use or value for the person or organisation that owns it, and which is, or will be, discarded. There are a number of negative associations with waste, including that:

- waste poses a risk to human health and the environment
- the production of waste is symptomatic of resource use
- the production of waste is a manifestation of overconsumption.<sup>18</sup>

However, waste can be valuable to another person or organisation and Council aims to maximise opportunities to make waste a useful commodity. Instead of being regarded as having no value, waste materials should be seen as a useful resource that can be recovered, recycled and reused again in our economy. Even landfill, if maintained to high environmental standards, can be useful in rehabilitating former quarries and in some cases, the methane gas produced may be accessed to offset brown coal use for electricity.

Waste management and resource recovery includes the management of litter in the streets and public places within the City of Whittlesea.

Traditionally, waste management has focused on the protection of public health, and more recently on protecting the environment including safeguarding our land and water sources from hazardous waste. Since the 1970s, the waste hierarchy has underpinned waste management and placed greater emphasis on waste avoidance, reuse and recycling in preference to sending it to landfill <sup>19</sup>.

Litter is any item discarded inappropriately which ends up in a public place. It is both harmful to people and the environment, and can end up in stormwater and the ocean.

Keeping a local area clean of litter costs the government and community millions of dollars each year.



#### **Waste Types:**

- Garden wastes (organics)
- Food scraps (organics)
- Hard waste
- Household chemicals
- Hazardous waste
- Electronics waste
- Mobile phones.

Comingled recyclable materials are the most common types of waste which are separated at the source and collected from households, businesses, organisations and educational institutions across the country.

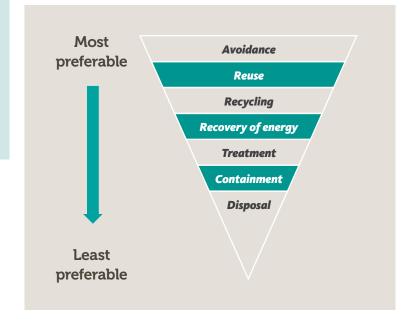
However, there is still an average of 12.8 per cent of materials incorrectly disposed of within the general garbage bin that can be recycled. The comingled recycling stream in Australia includes:

- Glass containers
- Aluminium and steel cans
- Plastic bottles and containers (plastic identification codes 1 - 7)
- Paper and cardboard, newspapers, magazines, office paper and envelopes.

The City of Whittlesea has a strong record in recycling waste materials. However, Council encourages the community, where possible, to avoid generating waste, think carefully about purchases and buy environmentally friendly products. With products now being designed for planned obsolescence, and as essentially 'throw-away' trend products, results in a high waste generation.

Greenhouse gas emissions and other potentially harmful pollutants are produced by waste management activities, which must therefore be managed to high environmental standards:

- Landfill generates greenhouse gases such as methane
- Landfill generates liquid pollutants called 'leachate'
- Waste transport vehicles generate GHG from diesel combustion.





The City of Whittlesea aims to advocate and educate the community to be more sustainable through:

- considering the whole lifecycle of a product when purchasing – from its creation out of natural resources to its disposal
- buying environmentally preferable products, for example those made from recycled materials, greenhouse friendly products, water efficient, and low toxicity products
- advocating to higher levels of government for regulation to make manufacturers responsible for the types of waste produced by their product.

While avoiding waste generation and focusing on recycling and reuse remains important, choosing how to deal with waste by examining costs and benefits and balancing social, environmental and economic outcomes may be a more sensible option<sup>20,21</sup>.

The management of waste is a major component of Council's annual budget and is carefully managed to provide optimal savings and also benefit the community and the environment. Ultimately every waste material can be recycled – but at a cost. It is now argued that the most sustainable approach to waste management should integrate social, economic and environmental factors to determine the optimal net-community benefit.

For example, it may be more sustainable to send some waste to landfill. This option may be less expensive, resulting in savings for Council that may be used elsewhere in the community. In addition, the methane produced by landfill may be accessed to offset brown coal use for electricity, also resulting in environmental benefits. Overall, this is a more sustainable outcome. This strategy and the *Municipal Waste Management and Resource Recovery Strategy 2012-2020*, (currently under development) will seek to strike the right balance for the municipality.

**Threats and Barriers:** High levels of consumption, leading to increased waste are common in developed countries in which consumers seek out the newest technology. Items become redundant more frequently and are seen as disposable, resulting in increased amounts of waste. There is also the perception that consumption creates a stronger economy, prompting people to buy rather than reuse or recycle.

Other key threats and barriers include:

- Limitations to kerbside waste collection, particularly kerbside food collection which can have high levels of contamination
- · Increased product packaging
- Lack of services or industries to recycle a growing array of waste products
- Increases in the Landfill levy, the cost of waste disposal, municipal waste collection and property rates will rise
- Increases in landfill operation costs with the introduction of the carbon price
- Increased greenhouse gas emissions created by increased landfill
- The perception that environmentally friendly products are more expensive and may not be genuine.

#### **Opportunities:**

- Supporting local businesses which supply environmentally preferable products
- Supporting climate change action campaigns to encourage more people to reduce waste and to buy environmentally friendly products
- Regular review of Council's waste collection contracts and seeking services which maximise the reuse of materials and the use of low emissions collection vehicles
- Opportunities for greater source separation could emerge in the future in response to resource shortages
- Advocating for improved recycling facilities.

## **Our Priority Areas**

# **Change Strategies**

#### Aims:

- All Council actions and decisions recognise sustainability
- Council advocates sustainability to external organisations
- Community actions and decisions reflect sustainability goals.

• behaviour • education • engagement • change •





**Change** is needed to reduce our impact on the natural environment. Both the Council and the broader community need to make positive changes. 'Change Strategies' are ways to encourage sustained behaviour change.

Council's role in this change process is to:

- Increase awareness and understanding in the community about sustainability and help residents gain access to the programs and resources to help them make change.
- Change the way Council does business, so that the decisions it makes, the activities it undertakes and the services it provides have minimal impact on the environment.

A culture of sustainability needs to be integrated throughout Council and embedded into its day-to-day business activities. This will come from building Council's internal capacity, skills and knowledge about sustainability and learning how we can move towards being a Council whose operations and attitude is wholly sustainable.

It is important that Council monitors and evaluates its progress towards sustainability and ultimately leads by example, effectively communicating and marketing its achievements. This progress can be used to equip the people of City of Whittlesea to also change their day-to-day actions and decisions.

Change strategies focus on the key issues of climate change, water quality, water supply, land management, materials efficiency and biodiversity.

#### **Threats and Barriers:**

- The focus of modern life on consumption can stop people living sustainably. There is a common perception that being sustainable means you must sacrifice your normal lifestyle and this limits some members of the community from participating in change often sustainable living is seen as only for "hippies" or "greenies". But it is important that sustainable living is not seen as out of the ordinary.
- There is the perception that living sustainably has high upfront costs, and therefore is only for the rich. Cost is a barrier to sustainability as actions such as buying organic goods, installing solar energy or using a hybrid vehicle are all seen as expensive choices.
- Powerful media voices of climate and sustainability sceptics can cast doubt over the severity of environmental issues, reducing the sense of urgency around action needed.
- Differing priorities and a lack of sustainability knowledge within an organisation are common barriers to achieving a unified approach to sustainability.

#### **Opportunities:**

- Severe weather events across the world and Australia have contributed to increased concern in the community about climate change, leading to stronger community support for sustainability outcomes
- Using cost-reduction based incentives to reduce greenhouse gas emissions
- Using the emergence of attitudes based on reduced consumerism as leverage to achieve sustainability outcomes
- Build networks with other organisations who are already working on sustainability
- Recruit staff who are innovators in sustainability, as sustainability ambassadors
- Provide professional development for staff on how to consider sustainability in their everyday work
- Give staff environment groups a greater role in addressing sustainable work practices across the whole organisation
- Use internal corporate planning to embed sustainability across the breadth of Council programs, functions and activities.

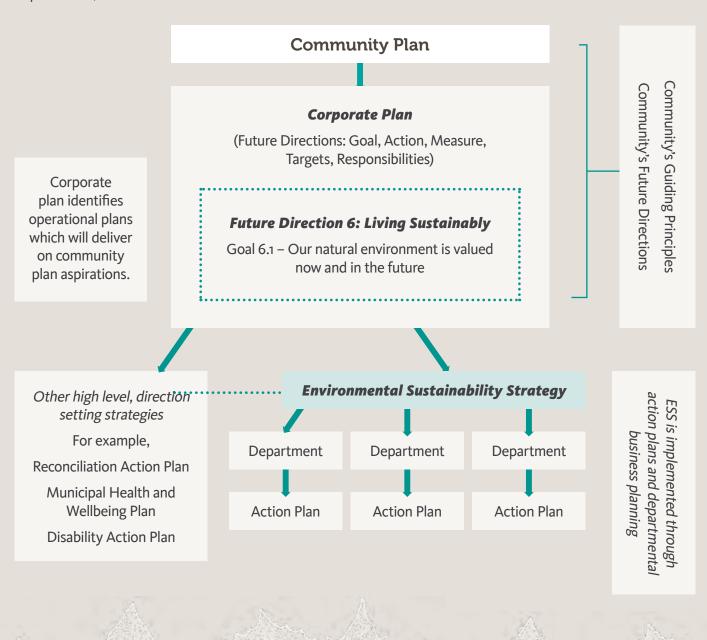
The City of Whittlesea has a prime opportunity to model sustainable behaviour to its growing community. Council should have a positive influence, helping to shift other organisations, businesses and the general community towards being sustainable.



## Our Approach

### Implementing the Environmental Sustainability Strategy

Council is responsible for implementing the Strategy (as directed by the Community Plan) by ensuring that it is incorporated into the business planning process and appropriate action plans of all relevant departments, as illustrated below.



A list of action plans relevant to each theme is outlined in Part Two (*Implementation at the Local Level*) of this document. To guide implementation, primary and secondary responsibilities for each policy direction, strategy and approach are also identified in Part Two of this document.

Policy directions, strategies and approaches are also prioritised according to whether they are a:

- Ongoing priority (continual)
- Short-term priority (1-3 years)
- Medium-term priority (4-7 years)
- Long-term priority (8-10 years).

Short-term priorities are those most likely to deliver key sustainability outcomes for the municipality. They may also be actions that are relatively simple to instigate. Medium and long-term priorities are those that are less urgent, rely on longer term financial planning, or involve a range of stakeholders and multiple steps before implementation can occur. Ongoing priorities may already be occurring and are expected to continue into the future.

The policy directions, strategies, and approaches within the document are aspirational and those that require funding will be subject to Council consideration as part of the normal budget process. The Strategy has the capacity to guide a whole-of-government approach to the coordination and implementation of actions across a ten-year period.



#### Monitoring and Reporting on the Environmental Sustainability Strategy

Monitoring and reporting on the success of the Strategy will comprise two components.

1. Reporting on the achievement of individual policy directions, strategies and approaches.

#### This includes:

- quarterly reporting to the internal executive implementation committee
- progress reporting to the community in three, seven and 10 years
- a five year review
- a 10 year full update and review.

The achievement of individual actions of the Strategy, the policy directions, strategies and approaches will be monitored through Council's community and corporate planning framework. Results will be reported to the community through reporting on the policy directions of the Strategy following each priority period (three, seven and 10 years) and through the community plan reporting process.

The Environmental Sustainability Strategy will be updated after five years and fully reviewed in 2022.

### 2. Environmental reporting via environmental indicators.

#### This includes:

• Environmental Indicators Report to the community every two years.

To assess if the Strategy is improving environmental sustainability in the City of Whittlesea, environmental reporting on two to three key environmental indicators per key theme will be conducted.

An Environmental Indicators Report will be released every two years, which will help us determine whether the sustainability goals of the strategy are being achieved and inform future strategies and approaches.

## Policy Directions, Strategies and Approaches



## Water



#### Implementation at Local Level

Sustainable Water Use Plan 2006 (under review)

Stormwater Management Plan 2012-2017

City of Whittlesea Planning Scheme

**Precinct Structure Plans** 

**Development Plans** 

**Drainage Plans** 

#### **Indicators**

- Council water usage
- Percentage of council water use from alternative water sources
- Community water usage
- Ecological health of key waterways and/or catchments
- Thomastown industrial water quality

Policy Direction			
W1	Council will utilise and strengthen planning and development tools, and other regulatory and policy mechanisms to conserve water resources and protect local waterways and catchments.		
Reference	Strategies and Approaches	Responsibility	Priority
W1.1	Utilise the full range of planning and development tools to conserve water resources and protect waterways and catchments, including:	Lead: Strategic Planning and Design, Established Areas Planning, Growth Area Development Assessment	Ongoing
	Municipal Strategic Statement (under review)		
	Framework and Precinct Structure Planning		
	Local Structure Plans		
	Development Plans		
	Planning Permits.		
W1.2	Strengthen policies and controls relating to new dams in rural areas so that stream flows in local waterways can be maintained and enhanced.	Lead: Sustainability Planning	Short
W1.3	Develop policy and guidelines within the local planning framework to manage the construction of farm dams to protect stream flow in local waterways.	Lead: Sustainability Planning Support: Established Areas Planning	Short
W1.4	Implement the Stormwater Management Plan 2012-2015.	Lead: Environmental Operations	Short
W1.5	Extend best practice water sensitive urban design to cover development of non-residential	Lead: Environmental Operations	Short
	land uses including mixed use, industrial and commercial.	Support: Established Areas Planning, Development Engineering	
W1.6	Apply best practice water sensitive urban design to Council's own assets, new and existing.	Lead: Development Engineering, Major Projects, Engineering and Transportation	Short
W1.7	Where possible, apply best practice water sensitive urban design to existing civil infrastructure, wetlands and waterways of established areas within the City of Whittlesea, including those owned by Council, to improve water quality and aquatic ecology.	Lead: Development Engineering, Major Projects	Short
W1.8	Develop cross-directorate and departmental capacities to integrate the specification, approval and inspection, and maintenance of, Water Sensitive Urban Design systems as required by the Planning Scheme.	Lead: Development Engineering and Environmental Operations	Ongoing

Policy Direction			
W2	Council will use a partnership approach to work with government departments and agencies, and public authorities to ensure the sustainable use and management of water resources, waterways and catchments in the City of Whittlesea.		
Reference	Strategies and Approaches	Responsibility	Priority
W2.1	Continue to be an active member and funder of the Merri Creek Management Committee and Darebin Creek Management Committee.	Lead: Sustainability Planning Support: Parks and Open Space	Ongoing
W2.2	Develop and maintain active productive working relationships with federal and state government departments, public authorities such as Melbourne Water, Yarra Valley Water, Southern Rural Water, the Environment Protection Authority, Growth Areas Authority and catchment management authorities, to coordinate the sustainable development and protection of waters and catchments, and water conservation and use.	Lead: Sustainability Planning	Ongoing
W2.3	Work in partnership with other agencies so that base and environmental flows, stream bank conditions and water quality in local waterways are sufficient to sustain the biodiversity and other environmental, social and economic values of these waterways in the City of Whittlesea:  • Plenty River (including Barbers, Bruces, and Scrubby Creeks)  • Merri Creek (including Curly Sedge, Edgars, and Central Creeks)  • Darebin Creek (including Findon and Hendersons Creek).	Lead: Parks and Open Space, Environmental Operations, Sustainability Planning	Ongoing
W2.4	Develop effective partnerships with water and other public authorities, in order to support businesses to be more water efficient, and to use alternative water resources.	Lead: Economic Development	Ongoing

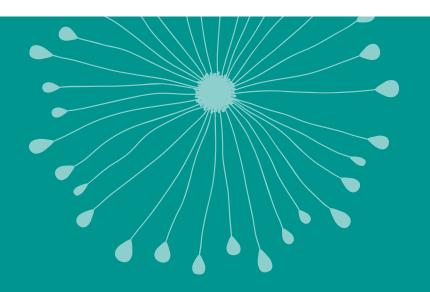
Policy Direct	ction		
W3	Council will engage and support community and business to work toward a reduction of potable water use by promoting sustainable use and management of water resources, waterways and catchments in the City of Whittlesea.		
Reference	Strategies and Approaches	Responsibility	Priority
W3.1	Support residents and landlords to continue to be more water efficient in their homes, through effective community engagement, outreach programs, education and information provision.	Lead: Sustainability Planning	Short
W3.2	Support businesses to continue to be more water efficient through effective community engagement, outreach programs, education and information provision; and, through business development support, facilitation, investment and marketing opportunities.	Lead: Sustainability Planning Support: Economic Development	Ongoing
W3.3	Develop innovative models for the housing and commercial development industry to implement integrated water conservation, and waterway and catchment protection, into new housing estates.	Lead: Sustainability Planning Support: Environmental Operations	Short
W3.4	Develop and maintain productive, collaborative, professional relationships with private developers.	Lead: Strategic Planning and Design	Ongoing
W3.5	Advocate for the provision of state and federal grants to support residents, businesses and farmers to reduce water consumption, and utilise alternative water sources.	Lead: Sustainability Planning Support: Advocacy and Communications	Ongoing
W3.6	Continue to be an active member, supporter, and funder, of local community water conservation and waterway protection groups, including Waterwatch.	Lead: Environmental Operations Support: Sustainability Planning	Ongoing



Policy Direction			
W4	Council will reduce its water consumption by 25% by 2015/16, and a further 25% by 2030 (in relative water use per population) from 2001 levels.		
Reference	Strategies and Approaches	Responsibility	Priority
W4.1	Review the Sustainable Water Use Plan (2006), and prepare a new plan (which is reviewed on a five yearly basis) to ensure the continuation of water use reduction and conservation activities.	Lead: Sustainability Planning	Short
W4.2	Provide annual end of financial year water use reports to track progress towards the corporate water conservation goals.	Lead: Sustainability Planning	Ongoing
W4.3	Continue to explore alternative water source opportunities for Council's high water use sites.	Lead: Parks and Open Space	Ongoing

Policy Direction			
W5	Council will take full and proper account of the current and likely future impacts of climate change in water use, and waterway and catchment management policies.		
Reference	Strategies and Approaches	Responsibility	Priority
W5.1	Amend the strategic planning, and infrastructure and asset provision tools and processes, such that they will anticipate the water-related effects of climate change including decreased water availability, less overall rainfall, more intense rainfall events, more frequent and intense bushfires, and decreased soil moisture.	Lead: Development Engineering	Short
W5.2	Ensure that Council alternative water supply projects be energy efficient and additional greenhouse gas emissions are off-set using equal and verified abatements.	Lead: Environmental Operations	Ongoing

### Land





#### Implementation at Local Level

Land Management Plans (173 Agreement)
City of Whittlesea Local Laws
Open Space Strategy 1997 (under review)
Green Wedge Management Plan
City of Whittlesea Planning Scheme
Sustainable Land Management Program
Land Recovery Support Program
Rate Rebate Scheme (under review)

#### **Indicators**

- Community participation in sustainable land management events
- Number of people issued with Notices to Comply with the Pest Plant Local Law
- Area of lobe needle grass
- Number of illegal filling cases per year
- Square metres of weeds sprayed per year (public land)
- Hectares of ecological burn (public land)
- Number of Land Management Plans
- Uptake of the Sustainable Land Management Rate Rebate Scheme

Policy Direction			
1.1	Council will continue to provide a high quand open spaces across the urban and rur for community and environmental benefit	al areas which are manage	
Reference	Strategies and Approaches	Responsibility	Priority
L1.1	Review the City's Open Space Strategy 1997 to facilitate improved strategic planning for open space provision across the municipality.	Lead: Parks and Open Space	Short
	The Open Space Strategy is intended to provide a guiding framework for Council to undertake the future planning, provision, development and maintenance of its integrated open space system and to ensure that it meets the needs of our diverse community and the environment.		
	The Strategy will be updated every five and 10 years to ensure it reflects current trends, and is responsive to community needs and aspirations. Implementation progress will be reported periodically to Council and the community.		
	Refer to B <sub>3.1</sub> for related strategy.		
L1.2	Continue to develop and implement management plans for Council reserves based on adaptive management <sup>22</sup> techniques and best practice.	Lead: Parks and Open Space	Ongoing
L1.3	Identify Council operations that have the potential to contribute to land degradation	Lead: Infrastructure Maintenance	Ongoing
	or the spread of pest plants and animals. Incorporate new measures, processes or protocols to achieve best management practices and minimise environmental impacts.	Support: Engineering and Transportation	
L1.4	Continue to build Council staff and contractor skills and knowledge of best practices in land and vegetation management. Introduce annual	Lead: Infrastructure Maintenance, Parks and Open Space	Ongoing
	training programs and professional development opportunities to ensure staff and contractors regularly update skills and knowledge.	Support: Engineering and Transportation	
L1.5	Review the lease arrangements of Council owned rural land based on an assessment of the biodiversity value of the land, with a view to determining its ongoing retention.	Lead: Parks and Open Space Support: Sustainability Planning	Short
L1.6	Actively manage Council owned rural land (that is retained under L1.5) to ensure that the health and biodiversity values are maintained and enhanced over time.	Lead: Parks and Open Space Support: Sustainability Planning	Short

L1.7	Investigate the feasibility of establishing a 'land management best practice' demonstration site on a Council rural reserve to be utilised in community training and education programs. Explore funding opportunities and partnerships to support the implementation of this initiative.	Lead: Sustainability Planning	Long
L1.8	Encourage and facilitate cooperation and coordination of land management activities between Council owned land and adjacent land owners to maximise the success of land management efforts.	Lead: Parks and Open Space	Ongoing
L1.9	Develop and implement site specific weed management plans that provide a strategic approach to the management of priority weed species across Council owned and managed land.	Lead: Parks and Open Space	Ongoing

Policy Direct	Policy Direction			
L2	Council will engage with the local community in the creation and management of Council reserves.			
Reference	Strategies and Approaches	Responsibility	Priority	
L2.1	Provide increased opportunities in annual works programs which facilitate a greater level of community participation and involvement in the management of Council reserves.  Refer to Biodiversity theme, for related strategies and approaches (e.g. B4.2).	Lead: Parks and Open Space	Ongoing	
L2.2	Continue to effectively consult and engage with the community in the planning, design and development of landscape plans for Council reserves.	Lead: Parks and Open Space	Ongoing	
L2.3	Raise community awareness of the benefits of investing in land rehabilitation works by providing educative signage at high profile and high use sites.	Lead: Parks and Open Space	Ongoing	

Policy Direction			
L3	Council will actively pursue regulatory me and improve the health of rural land within	-	ect
Reference	Strategies and Approaches	Responsibility	Priority
L3.1	Review of the Whittlesea Planning Scheme to improve and strengthen local planning mechanisms and policies which aim to protect and improve land health and productivity.	Lead: Strategic Planning and Design	Ongoing
L3.2	Implement and periodically review the municipality's Green Wedge Management Plan 2011-2021. Refer to B2.2 for further detail.	Lead: Strategic Planning and Design	Ongoing
L3.3	Facilitate the long-term protection of land health and productivity through the consistent application of agreed standard planning permit conditions which address key land management issues. Ensure that these are applied consistently and reviewed periodically to ensure long-term effectiveness.	Lead: Established Areas Planning Support: Sustainability Planning	Ongoing
L3.4	Continue to require Land Management Plans as part of rural planning permit requirements and proactively monitor compliance. The purpose of these Plans is to ensure minimal environmental impact resulting from land use change, to improve land health and productivity over time, and to help local landholders fulfil their long-term aspirations for their properties.	Lead: Sustainability Planning Support: Established Areas Planning	Ongoing
L3.5	Establish a landscape approach to land management across the municipality by utilising endorsed Land Management Plans and other reliable data sources as a means of mapping key priorities and activities across the municipality.	Lead: Sustainability Planning	Medium
L3.6	Establish effective incentives and support mechanisms to assist land owners to implement Land Management Plans.	Lead: Sustainability Planning	Ongoing
L3.7	Actively monitor compliance with the Whittlesea Planning Scheme and planning permit conditions in rural areas with a particular focus on protecting biodiversity, land health and productivity.	Lead: Sustainability Planning Support: Established Areas Planning	Short
	This will be achieved by applying improved and consistent processes and protocols for rural investigations and compliance, and by establishing an effective tracking system to monitor compliance with permit conditions and any related breaches of the Planning Scheme.		

L3.8	Implement pro-active environmental planning education and compliance programs annually in the rural and urban fringe areas, prioritising the issue of illegal filling. Ensure that programs include an active monitoring component and are evaluated for long term effectiveness.	Lead: Sustainability Planning	Short
L3.9	Work in partnership with neighbouring councils to address common environmental compliance issues. Investigate the feasibility of establishing a regional working group on this topic to share information and resources, and to develop a consistent approach to addressing common issues.	Lead: Sustainability Planning	Short
L3.10	Develop and implement a five year action plan which facilitates compliance with the City of Whittlesea Pest Plant Local Law (Clause 5.6). The action plan will identify priority areas for targeted education and local law compliance, associated monitoring and tracking processes, and methods to evaluate the long-term impact of the program.	Lead: Sustainability Planning Support: Local Laws	Medium
L3.11	Continue to undertake mapping of weed infestations annually in rural areas to assist in monitoring the number of properties impacted by target weeds and in determining priority areas for education and compliance.	Lead: Sustainability Planning	Ongoing

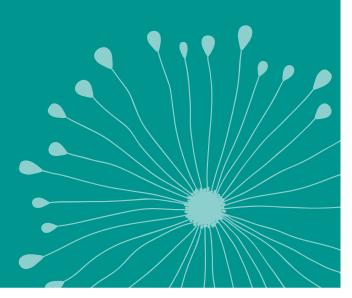


Policy Direction			
L4	Council will continue to recognise and support local landholders as primary agents in managing rural land and biodiversity through effective incentive programs.		
Reference	Strategies and Approaches	Responsibility	Priority
L4.1	Continue to implement the municipality's Sustainable Land Management Program which includes the following:	Lead: Sustainability Planning	Ongoing
	• Sustainable Land Management Rate Rebate Scheme		
	Environmental Works Grants for private landholders		
	Free land management advice to rural land holders		
	Free educational events and field days.		
L4.2	Progressively improve the monitoring and reporting of the Sustainable Land Management Program outcomes to ensure that the overall program is achieving its objectives and that the land management needs of participating landholders are adequately met.	Lead: Sustainability Planning	Ongoing
L4.3	Assess the effectiveness of the municipality's core land management incentive program, the Sustainable Land Management Rate Rebate Scheme, every five years to ensure that it is achieving its stated goals and objectives. Implement program improvements to ensure continued effectiveness.	Lead: Sustainability Planning	Ongoing
L4.4	Develop and implement an annual communications plan for the Sustainable Land Management Program which aims to increase community participation and awareness.	Lead: Sustainability Planning Support: Marketing and Communications	Short
L4.5	Seek external funding and support for rural landholders to undertake management works that protect and enhance natural and agricultural values, and ecological systems.	Lead: Sustainability Planning	Ongoing
L4.6	Facilitate the uptake of external incentives, eco-markets and other programs which provide an alternative income or financial incentive for improving land health and biodiversity.	Lead: Sustainability Planning	Medium

Policy Direc	tion		
L5	Council will help to increase community car of sustainable land management practices		lerstanding
Reference	Strategies and Approaches	Responsibility	Priority
L5.1	Through appropriate research methodologies, establish a better understanding of rural landholder types and needs, and their level of awareness, motivations and capacity to address land management issues. Utilise this information to ensure that current and future land management programs are responsive to community needs.	Lead: Sustainability Planning Support: Organisation Improvement	Medium
L5.2	Establish an effective communications program which aims to provide regular and topical land management information to rural landholders. The program may include but is not limited to rural newsletters, online communications and social media, locally relevant fact sheets, and targeted media campaigns.	Lead: Sustainability Planning Support: Marketing and Communications	Ongoing
L5.3	Facilitate the establishment of area based community action groups which focus on addressing local land management priorities.	Lead: Sustainability Planning	Long
L5.4	Continue to deliver and support local field days and events which focus on locally relevant land management issues.	Lead: Sustainability Planning	Ongoing
L <sub>5.5</sub>	Research the suitability of local land conditions within the rural areas to support differing land uses and agricultural pursuits.	Lead: Economic Development Support: Sustainability Planning	Medium
L5.6	Based on sound research, detailed land assessment, and where appropriate local knowledge of land condition, promote land uses and agricultural activities that are suited to local conditions and land capability. Ensure that future proposals for rural land use change are compatible with the broader landscape values, local conditions and land capability. Refer to L3 for complimentary strategies and approaches.	Lead: Sustainability Planning Support: Established Areas Planning	Ongoing
L5.7	Employ a rural-agribusiness development officer to support the development of sustainable, viable and alternative uses for rural land within the municipality.	Lead: Economic Development	Medium

Policy Direc	tion		
L6	Council will support regional partnerships and collaborative action which aim to improve land health and management practices.		
Reference	Strategies and Approaches	Responsibility	Priority
L6.1	Help protect agricultural and natural values and the significant investment in land management already undertaken by the community by continuing to advocate to the State Government for increased investment in our municipality with respect to compliance with the Catchment and Land Protection Act 1994 (CaLP).	Lead: Sustainability Planning Support: Advocacy and Communications	Ongoing
L6.2	Participate on regional advocacy groups to ensure that State Government agencies facilitate investment in our municipality and to better coordinate resources and activities in order to achieve common land management goals.	Lead: Sustainability Planning	Ongoing
L6.3	Continue to strengthen the working relationship between Council, local groups, catchment management agencies, waterway coordinating committees and other stakeholders through the implementation of core plans and strategies, e.g. Merri Creek and Environs Strategy.	Lead: Sustainability Planning	Ongoing
L6.4	Advocate to the State Government and other relevant agencies such as Melbourne Water, VicTrack and VicRoads for proactive management and improved coordination of land management efforts across publicly owned and managed land, with a particular focus on pest plant and animal control.	Lead: Sustainability Planning Support: Advocacy and Communications, Parks and Open Space	Ongoing
L6.5	Continue to develop, strengthen and maintain partnerships with neighbouring councils to proactively and collaboratively manage adjoining land.	Lead: Sustainability Planning	Ongoing

## Climate Change





#### Implementation at Local Level

City of Whittlesea Planning Scheme

**Emissions Reduction Plans** 

Council Annual Reports (GHG emissions reporting)

Northern Alliance for Greenhouse Action (NAGA) Strategic Plan

#### **Indicators**

- Council greenhouse gas emissions (buildings, streetlights, fleet)
- Community greenhouse gas emissions (residential gas and electricity)

Policy Direct	Policy Direction		
CC1	Council will uphold a zero net increase in Gas Emissions levels to 2022, based on 20		
Reference	Strategies and Approaches	Responsibility	Priority
CC1.1	Develop a Greenhouse Emissions Reduction Framework to define the scope and methods for measuring and reporting greenhouse gas emissions.	Lead: Financial Services Support: Sustainability Planning	Short
CC1.2	Develop a series of Emission Reduction Plans to guide corporate and departmental planning and actions that will reduce emissions, addressing: buildings, transport fuel emissions, public lighting, materials and waste.	Lead: Sustainability Planning Support: All Departments	Short
CC1.3	Instigate improvement projects that will reduce energy use across council's existing operations and infrastructure.	Lead: Facilities Management Support: Sustainability Planning	Short - Medium
CC1.4	Ensure all new buildings, projects, operations and activities are executed in a manner that minimises greenhouse gas emissions and other environmental impacts.	Lead: Major Projects  Support: Sustainability Planning, Engineering and Transportation, Facilities Management	Ongoing
CC1.5	Purchase emissions offsets to assist in achieving Council's emissions reduction targets, after energy efficiency measures have been implemented. Emissions offsets may be purchased through a combination of Australian and alternative offsets and in accordance with corporate values.	Lead: Financial Services Support: Sustainability Planning	Short - Medium
CC1.6	Track Council's progress toward the corporate energy use and climate change impact goals using established greenhouse accounting methods and report this progress annually to Council.	Lead: Financial Services Support: Sustainability Planning	Short - Medium

Policy Direction			
CC2	Council will integrate climate change thinking into all of Council's corporate and operational functions.		
Reference	Strategies and Approaches	Responsibility	Priority
CC2.1	Establish a whole of organisation approach to facilitate effective and efficient climate change action.	Lead: Sustainability Planning	Ongoing
CC2.2	Incorporate greenhouse emissions reporting and greenhouse emission reduction plan actions into the Community Plan, Corporate Plan, Departmental Plans, and individual Work Plans.	Lead: Sustainability Planning Support: All Departments	Ongoing

CC2.3	Facilitate cross-directorate collaboration on greenhouse emission reduction activities across Council, including organised committees and working groups as needed.	Lead: Sustainability Planning	Ongoing
CC2.4	Facilitate engagement with staff, the community and stakeholders on climate change related initiatives.  Refer to Change Strategies theme for further detail.	Lead: Sustainability Planning	Ongoing

Policy Direction			
CC3	Council will facilitate a transition toward community.	l a low emissions future w	rithin the
Reference	Strategies and Approaches	Responsibility	Priority
CC <sub>3</sub> .1	Provide community services, including waste management, home care, youth, maternal and senior services, in a manner that minimises greenhouse gas emissions.	All Departments	Ongoing
CC3.2	Encourage domestic construction that exceeds minimum energy and greenhouse gas emission performance standards.	Lead: Established Areas Planning Growth Areas Development Assessment	Ongoing
		Support: Sustainability Planning	
CC3.3	Encourage the use of renewable energy	Lead: Sustainability Planning	Ongoing
	supplies, including solar panels.	Support: Established Areas Planning Growth Areas Development Assessment	
CC3.4	Support 'green' business and economic	Lead: Economic Development	Ongoing
	development opportunities that provide a low emission employment future within the municipality.	Support: Sustainability Planning	
CC3.5	Incorporate greenhouse gas emission initiatives	Lead: Sustainability Planning	Short
	into Council's planning instruments. Refer to Urban Development and Built Environment theme for further detail.	Support: Strategic Planning and Design, Established Areas Planning	
CC3.6	Participate in the ongoing development and implementation of the Towards Zero Net Emissions Program for the Northern Alliance for Greenhouse Action (NAGA) Region, and other NAGA activities as appropriate.	Lead: Sustainability Planning	Short

Policy Direction			
CC4	Council will assess the impacts of climate change within the municipality and adopt appropriate adaptation strategies to reduce the associated risks.		
Reference	Strategies and Approaches	Responsibility	Priority
CC4.1	Apply a hazard prevention and risk management approach to avoiding and/or minimising the negative impacts of climate change.	Lead: Sustainability Planning Support: All Departments	Short
CC4.2	Develop and implement a climate change adaptation plan encompassing all Council planning and development, infrastructure provision, and community services to appropriately prepare and adjust to the impacts of climate change.	Lead: Sustainability Planning	Short
CC4.3	Incorporate initiatives that address the impacts of climate change into Council's planning instruments. Refer to Urban Development and Built Environment theme for further detail.	Lead: Strategic Planning and Design Support: Sustainability Planning	Medium

Policy Direction			
CC5	Council will advocate for effective action to reduce local, regional, national and international emissions to avoid dangerous climate change.		ational and
Reference	Strategies and Approaches	Responsibility	Priority
CC <sub>5</sub> .1	Integrate climate change considerations into Council's advocacy policy and priorities.	Lead: Sustainability Planning Support: Advocacy and Communications	Short - Medium
CC5.2	Contribute to the advocacy activities of network organisations on climate change issues of importance to Council and the community.	Lead: Sustainability Planning	Ongoing
CC <sub>5.3</sub>	Advocate to the Victorian and Australian Governments for clear climate change policy solutions and effective climate change action.	Lead: Sustainability Planning Support: Advocacy and Communications	Ongoing
CC5.4	Seek support from Victorian and Australian Governments and other organisations for Council and the community to make the transition to a low emissions economy.	Lead: Sustainability Planning Support: Advocacy and Communications	Short - Medium





#### Implementation at Local Level

City of Whittlesea Planning Scheme

River Red Gum Protection Policy & Guidelines

Roadside Management Strategy 1998 (under review)

Sustainable Land Management support Programs – Farm Land Management Rebate Scheme, Environmental Works Grant for Private Landholders, Environmental education and behaviour change program, funding for local environmental groups

Biodiversity Management Procedures 2005

Open Space Strategy 1997 (under review)

Net Gain Strategy 2012

**Precinct Structure Plans** 

#### **Indicators**

- Net gain of native vegetation (habitat hectares) in estate developments
- Increase in amount of land protected by the planning scheme (ESO and VPO) over time
- Hectares of private land with a Land Management Plan
- Number of significant trees retained within development areas
- Weed mapping

Policy Direc	tion		
B1	Council will establish a strategic landscape approach to biodiversity planning, one which recognises the connectivity of significant sites and builds ecosystem resilience.		
Reference	Strategies and Approaches	Responsibility	Priority
B1.1	Establish a comprehensive and reliable data set of known ecological sites, habitat corridors and significant flora and fauna, both within the rural and urban areas of the municipality to utilise as a basis for long term biodiversity planning. Undertake ecological assessments where necessary to update existing reports or provide ecological data where there are known gaps in information.	Lead: Sustainability Planning	Short
B1.2	Improve Council's understanding and knowledge of the potential impact of climate change on local biodiversity values and the potential resilience of known ecological sites through research and collaboration.	Lead: Sustainability Planning	Long
B1.3	Develop and implement a municipal-wide Biodiversity Action Plan which articulates Council's strategic objectives and targets, and associated priority actions and programs for managing biodiversity in all natural areas within the municipality. In particular, the Plan will identify specific actions to protect and enhance sites of ecological significance and to improve the connectivity between those sites.	Lead: Sustainability Planning	Short
B1.4	Employ a 'greening' officer to support the implementation of B1.3 and associated programs which facilitate landscape change in the rural areas and improved urban biodiversity. Responsibilities of the greening officer would include the implementation of B4 and associated strategies and approaches.	Lead: Sustainability Planning	Medium
B1.5	Develop and implement programs and incentives which encourage biodiversity improvements in the urban parts of the municipality.	Lead: Sustainability Planning Support: Parks and Open Space	Medium
B1.6	Continue to investigate and facilitate the establishment of new opportunities for additional conservation parkland reserves which secure areas of high conservation significance outside the urban growth boundary.	Lead: Strategic Planning and Design	Ongoing

Policy Direc	tion		
B2	Council will continue to strengthen plann mechanisms to protect natural values, inc		
Reference	Strategies and Approaches	Responsibility	Priority
B2.1	Review the Whittlesea Planning Scheme (including the Municipal Strategic Statement) to improve and strengthen protection measures for local biodiversity and fauna.	Lead: Strategic Planning and Design	Ongoing
B2.2	Implement and periodically review the municipality's Green Wedge Management Plan 2011-2021.	Lead: Strategic Planning and Design	Ongoing
	The Plan will be reviewed at five years to ensure it continues to reflect current trends, legislative changes, and is responsive to community needs and aspirations. Implementation progress will be reported periodically to Council and the community.		
B2.3	Ensure that the municipality's River Red Gum Protection Policy and Guidelines are consistent with current best management practices and approaches. Broaden the policy to recognise the nationally significant Plains Grassy Woodlands of the Victorian Volcanic Plains listed under the EPBC Act 1999.	Lead: Sustainability Planning	Short
B2.4	Increase environmental compliance activity in the rural areas, particularly on matters that impact known sites of ecological significance. Refer to Land Management theme for further detail.	Lead: Sustainability Planning	Ongoing
B2.5	Develop and implement local planning policy which better facilitates local faunal movement in new growth areas with a particular emphasis on kangaroo management.	Lead: Sustainability Planning	Short
B2.6	Research the impacts of domestic and feral animals on native fauna, particularly in residential areas in close proximity to sites of high biological significance.	Lead: Sustainability Planning Support: Local Laws	Short
	Investigate the actions of other public agencies and authorities and how they have implemented control mechanisms for domestic and feral animals (e.g. cat curfew), and how successful they have been.		
B2.7	Continue to run Council's Local Laws Responsible Pet Ownership campaigns in identified growth areas.	Lead: Sustainability Planning Support: Local Laws	Ongoing
B2.8	Support the development and implementation of policy to manage nature strips in residential areas of the municipality.	Lead: Infrastructure and Technology Support: Sustainability Planning	Short

Policy Direc			
B3 Council will manage council owned c and areas to achieve long term biodiv			
Reference	Strategies and Approaches	Responsibility	Priority
B <sub>3</sub> .1	Review the municipality's Open Space Strategy 1997 to better acknowledge the significant role it now plays in the management of local biodiversity. Refer to the Land theme for further guidance.	Lead: Parks and Open Space Support: Sustainability Planning	Short
B3.2	Apply best practice and an adaptive management approach to conservation reserves and areas which aim to maximise local biodiversity outcomes.	Lead: Parks and Open Space Support: Sustainability Planning	Ongoing
B3.3	Manage waterways, lakes, ponds and wetlands (for which Council has responsibility) for ecological values and stormwater functions. Refer to the Water theme for further detail.	Lead: Parks and Open Space Support: Environmental Operations	Ongoing
B <sub>3</sub> .4	Monitor flora and fauna values at key conservation reserves such as the Quarry Hills Parkland, Growling Frog Golf Course, Epping North conservation reserves, and the Plenty Road Growth Corridor conservation reserves.	Lead: Parks and Open Space Support: Sustainability Planning, Environmental Operations	Ongoing
B <sub>3.5</sub>	Continue to manage Council's conservation reserves in accordance with best practice, and periodically review and update Council's Open Space and Conservation Reserve Management Procedures to ensure that they are consistent with current best practice. Ensure that site improvements and ongoing maintenance activities on Council's conservation reserves are in accordance with endorsed procedures.	Lead: Parks and Open Space	Ongoing
B3.6	Continue to develop, review and update site specific management plans for individual conservation reserves.	Lead: Parks and Open Space	Ongoing
B <sub>3.7</sub>	Continue to report on site condition and biodiversity improvements to relevant natural resource management authorities.	Lead: Parks and Open Space	Ongoing

Policy Direct	tion		
B4	Council will continue to facilitate an increased appreciation and knowledge of biodiversity values and natural areas throughout the local community.		
Reference	Strategies and Approaches	Responsibility	Priority
B4.1	Raise local awareness, knowledge and appreciation of biodiversity values and natural environment through specific educational programs and activities in partnership with key organisations and groups working locally. Activities may include field days, themed events and educational sessions, school visits and other initiatives.	Lead: Sustainability Planning	Ongoing
B4.2	Build on the successes of the municipality's annual Community Planting Program by pro-actively engaging with local groups and interested residents in the management of local conservation reserves. (Refer to L2.1).	Lead: Parks and Open Space Support: Sustainability Planning	Ongoing
B4.3	Encourage, support and facilitate the establishment of new biodiversity interest groups such as 'Friends of' groups and others focused on local biodiversity outcomes.	Lead: Sustainability Planning	Short
B4.4	Continue to support the activities of existing local environment groups through a variety of mechanisms including the municipality's Community Development Grants, promotion of activities, providing meeting spaces, equipment and materials, and opportunities to come together and share experiences.	Lead: Sustainability Planning	Ongoing

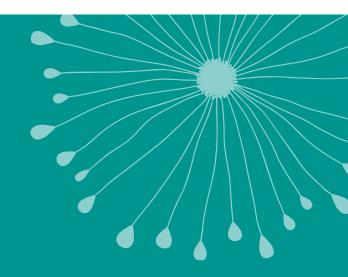
Policy Direction			
B5	Council will continue to recognise and support local landholders as primary agents in management our natural values in rural areas.		
Reference	Strategies and Approaches	Responsibility	Priority
B5.1	Continue to implement the City's Sustainable Land Management Program which incorporates incentives for biodiversity outcomes. Refer to the Land theme for further detail.	Lead: Sustainability Planning	Ongoing
B <sub>5</sub> .2	Periodically assess the effectiveness of the municipality's key biodiversity incentive program, the Environmental Works Grants Program, and initiate improvements which maximise biodiversity outcomes.	Lead: Sustainability Planning	Short
B <sub>5.3</sub>	Raise community awareness and where appropriate facilitate the uptake of eco-market programs which provide funds to private land holders for managing eco-system services such as protecting and managing native vegetation.	Lead: Sustainability Planning	Short

Policy Direction			
В6	Council will aim to maximise biodiversity and habitat connectivity in newly develop		
Reference	Strategies and Approaches	Responsibility	Priority
B6.1	Develop and implement a Whittlesea specific framework for the implementation and administration of the Victorian State Government's Native Vegetation Management – A Framework for Action. The key purpose of the framework will be to facilitate the long term protection of key ecological sites and connections between those sites, and to ensure that offsets derived from unavoidable vegetation removal are retained in close proximity to the loss, that is, preferably within the municipality.  The Whittlesea specific framework will include:	Lead: Parks and Open Space Support: Strategic Planning and Design, Sustainability Planning	Short
	<ul> <li>New local planning policy</li> <li>Supporting guidelines and internal processes</li> <li>Municipal level Native Vegetation Strategic Offset Plan</li> <li>Probity Plan ensuring public transparency and accountability of local framework</li> </ul>		
B6.2	Develop and implement a municipal level Native Vegetation Strategic Offset Plan which provides the necessary detail required to successfully facilitate the provision of net gain off-sets within municipal boundaries.	Lead: Parks and Open Space	Short
B6.3	Actively negotiate with developers throughout all stages of the development process for the provision of appropriate sized buffers along waterways and between sites of biodiversity value and urban infrastructure, and facilitate greater habitat connectivity between key habitat areas.	Lead: Parks and Open Space Support: Strategic Planning and Design	Ongoing
B6.4	Advocate throughout all stages of growth area planning and via other opportunities for the long term protection of local biodiversity and associated key habitat corridors throughout the municipality, particularly east to west corridors.	Lead: Strategic Planning and Design Support: Advocacy and Communications, Sustainability Planning	Ongoing
B6.5	Increase surveillance and enforcement of native vegetation offset agreements and related vegetation protection requirements derived from avoidable vegetation removal associated with urban development proposals.	Lead: Parks and Open Space Support: Sustainability Planning	Ongoing
B6.6	Negotiate improved urban biodiversity outcomes through landscape master plans that are required via the development approvals process.	Lead: Parks and Open Space Support: Strategic Planning and Design	Ongoing

Policy Direct	Policy Direction			
B7	Council will manage roadside habitat to maintain local biodiversity and habitat corridor values, whilst managing fire risk.			
Reference	Strategies and Approaches	Responsibility	Priority	
В7.1	Review the City of Whittlesea Roadside Management Plan 1998 to reflect legislative and policy changes, 2009 Bushfire Royal Commission outcomes and changes in best practice.  The Plan will be updated every five years to ensure it remains current. Implementation progress will be reported periodically to Council and the community.	Lead: Sustainability Planning Support: Infrastructure	Short	
В7.2	Continue to implement roadside weed control programs adjacent to areas of high biodiversity values.	Lead: Sustainability Planning Support: Infrastructure	Ongoing	

Policy Direction			
B8	Council will continue to develop and maintain strong partnerships with key government departments and other organisations to facilitate improved local biodiversity outcomes. (Refer to the Land theme for further detail on partnerships, advocacy and collaborative action).		
Reference	Strategies and Approaches	Responsibility	Priority
B8.1	Advocate, facilitate and support the establishment and long term management of key regional conservation parklands within the municipality which maximise biodiversity and community outcomes. Particular examples include the Merri Creek Regional Park and the Quarry Hill Parklands.	Lead: Sustainability Planning Support: Advocacy and Communication, Strategic Planning and Design	Ongoing
B8.2	Working in collaboration with the Merri Creek Management Committee and other member Councils and groups to progressively implement the Merri Creek and Environs Strategy 2009-2014 and to update and implement the Upper Merri Biodiversity Network Plan 2009.	Lead: Sustainability Planning	Ongoing
B8.3	Support the Darebin Creek Management Committee to develop and implement the Darebin Creek Management Plan.	Lead: Parks and Open Space Support: Sustainability Planning	Short
B8.4	Continue to work in cooperation with Melbourne Water to facilitate a greater uptake of the Melbourne Water Stream Frontage Management Program in priority areas and associated local programs and initiatives including compliance activities.	Lead: Sustainability Planning	Ongoing

# Urban Development and Built Environment





# Implementation at Local Level

City of Whittlesea Planning Scheme

Municipal Housing Strategy (under review)

**Housing Diversity Policy** 

**Precinct Structure Plans** 

Green Travel Plans

**Precinct Structure Plans** 

**Development Plans** 

### **Indicators**

- Housing density (growth areas compared to established areas)
- Mode of travel to work
- Dwellings within walkable distance of public transport in established areas
- Percentage of Municipal Strategic Statement (MSS) clauses that deliver sustainable outcomes
- Council investment in public realm improvements.

Policy Direct	Policy Direction			
U1	Council will aim to achieve environmental sustainability outcomes in strategic planning for established areas.			
Reference	Strategies and Approaches	Responsibility	Priority	
U1.1	Use Structure Planning processes for established areas to facilitate the creation of more sustainable communities.	Lead: Established Areas Planning	Ongoing	
U1.2	Promote the use of more sustainable land use and travel patterns, and the increase in housing density in appropriate areas, through projects such as the Housing Diversity Project, the Epping Central Structure Plan, Thomastown and Lalor Structure Plan, Thomastown Industrial Areas Strategy and future strategic plans for established areas of the municipality.	Lead: Established Areas Planning	Ongoing	
U1.3	Pursue opportunities for the consolidation of existing areas that are well connected by a variety of transport modes and well serviced by infrastructure, and employment opportunities.  Pursue improvements to existing infrastructure and services in these existing areas.	Lead: Engineering and Transportation, Established Areas Planning	Ongoing	

Policy Direction			
U2	Council will aim to achieve environmental sustainability outcomes in strategic planning for growth areas.		
Reference	Strategies and Approaches	Responsibility	Priority
U2.1	Use the Framework Planning and Precinct Structure Planning processes for any new growth area to achieve innovations and improvements in environmental sustainability.	Lead: Strategic Planning and Design Support: Sustainability Planning	Ongoing
U2.2	Identify infrastructure needs within Precinct Structure Plans for new residential and employment areas.	Lead: Strategic Planning and Design	Ongoing
U2.3	Use developer contributions to assist in funding appropriate levels of community infrastructure in newly developed areas.	Lead: Major Projects	Long

Policy Direct	tion		
U3	Council will use its statutory role as a 'Plan Authority' to achieve environmental susta		onsible
Reference	Strategies and Approaches	Responsibility	Priority
U3.1	Ensure all planning and development is based on a sound understanding of the natural and urban context, including cultural heritage.	Lead: Sustainability Planning	Ongoing
U3.2	Improve existing internal processes to ensure that adequate specialist advice on relevant sustainability matters is sought for the assessment of development proposals.	Lead: Planning and Major Projects Directorate	Ongoing
U3.3	Increase the capacity of staff to better utilise existing development assessment processes to achieve sustainable development outcomes.	Lead: Established Areas Planning Support: Sustainability Planning	Ongoing
U <sub>3</sub> .4	Investigate the use of, and where appropriate apply, discretionary tools that can be utilised during the planning application and development assessment process to achieve sustainability outcomes.	Lead: Sustainability Planning	Short
U3.5	Require a <i>Green Travel Plan</i> for all significant new developments through the development assessment process (where significant is defined as 30 or more residential dwellings, or more than 5000m² of non-residential development).	Lead: Established Areas Planning Support: Engineering and Transportation	Short
U3.6	<ul> <li>Review the Whittlesea Planning Scheme to:</li> <li>Ensure that the Municipal Strategic Statement and Local Planning Policies clearly communicate sustainability goals and objectives.</li> <li>Ensure the provisions, policies and tools of the scheme integrate consideration of climate change risks in the assessment process for planning and building applications.</li> <li>Make the best use of the current provisions and tools within the Victorian Planning Provisions by making amendments to the Planning Scheme to achieve sustainable outcomes.</li> <li>Develop a policy that specifies land allocation for community gardens, taking into account the locational requirements highlighted in the Background Paper to the Community Garden Policy.</li> </ul>	Lead: Strategic Planning and Design  Support: Sustainability Planning, Established Areas Planning, Governance and Economic Development	Short – Medium

U <sub>3.7</sub>	Where existing planning tools and methods are inadequate, research and pursue the creation of more innovative and effective approaches to support sustainable development.	Lead: Sustainability Planning	Ongoing
U <sub>3</sub> .8	Finalise Council's <i>The Guidelines to Planning and Development</i> to provide direction on achieving the principles of traditional neighbourhood design and sustainability across the City of Whittlesea. In particular, ensure that these Guidelines inform the following Council policy and processes:  • Municipal Housing Strategy  • Development in both established and growth areas, including through the Precinct Structure Planning process  • The review of the Whittlesea Planning Scheme.	Lead: Strategic Planning and Design Support: Development Engineering, Established Areas Planning	Short

Policy Direction			
U4	Council will aim to promote the provision of well-connected sustainable transport options.		
Reference	Strategies and Approaches	Responsibility	Priority
U4.1	<ul> <li>Identifies and reserves appropriate corridors for the future provision of public transport through strategic planning and appropriate planning scheme provisions.</li> <li>Advocates to State Government for the forward planning and provision of transport infrastructure and services to connect growth areas with services and infrastructure, local activities, places of employment, and metropolitan Melbourne.</li> <li>Uses Precinct Structure Planning in the growth areas to facilitate connections between places of residence, places of employment, and to the established areas.</li> <li>Improves sustainable transport options provided in the established areas.</li> <li>Advocates for community transport services to meet local transport needs not catered for by public transport.</li> </ul>	Lead: Engineering and Transportation Support: Advocacy and Communications, Strategic Planning and Design, Established Areas Planning, Community Services	Ongoing

Policy Direct	Policy Direction			
<b>U4</b>	Council will aim to promote the provision of well-connected sustainable transport options. <i>Continued</i>			
Reference	Strategies and Approaches	Responsibility	Priority	
U4.2	Continue to advocate to the State Government for the appropriate provision of alternative and sustainable transport networks. This includes seeking the extension of heavy rail to Epping North and Mernda growth areas; and, the expansion and connection of local walking and cycling pathway networks.	Lead: Advocacy and Communications Support: Sustainability Planning, Engineering and Transportation	Ongoing	
U4.3	Undertake land use planning in growth areas which facilitates a mix of uses in walkable catchments.	Lead: Strategic Planning and Design	Ongoing	
U4.4	Promote alternative transport in order to reduce private car travel, including through supporting the Whittlesea Northern Transport Links project which aims to work with schools and community in the growth areas of Epping North, Laurimar and Mernda to implement active transport initiatives, including for example, bicycle safety and education.	Lead: Leisure Services and Planning	Short	

Policy Direct	Policy Direction			
U5	Council will facilitate a sustainable built environment within the City of Whittlesea.			
Reference	Strategies and Approaches	Responsibility	Priority	
U5.1	Encourage new buildings within the City of Whittlesea to exceed minimum environmental performance standards by integrating building performance benchmarks into the City of Whittlesea's planning application process.	Lead: Established Areas Planning, Strategic Planning and Design, Growth Areas Development Assessment Support: Sustainability Planning	Short	
U5.2	Provide advice and assistance to the community on environmentally sustainable design for new homes or buildings, extensions and retrofits.	Lead: Sustainability Planning	Ongoing	
U <sub>5.3</sub>	Facilitate improved environmental performance and resource efficiency in the design, construction, operation, and maintenance of all Council buildings and infrastructure.	Lead: Major Projects	Ongoing	

Policy Direction			
U6	Council will advocate for and demonstrate encourage sustainable urban developmen		
Reference	Strategies and Approaches	Responsibility	Priority
U6.1	Participate in cross-municipality initiatives that contribute to the development of improved sustainable urban development governance and policy, such as the Council Alliance for Sustainable Built Environment (CASBE).	Lead: Sustainability Planning	Ongoing
U6.2	Actively engage with and support advocacy campaigns of the National Growth Areas Alliance (NGAA) to the Federal government which relate to sustainability issues on the urban fringe, including provision of efficient public transport.	Lead: Advocacy and Communications Support: All Departments	Ongoing
U6.3	Actively engage with and support advocacy campaigns of the Interface Councils Group to the Victorian State Government on sustainability issues.	Lead: Advocacy and Communications Support: All Departments	Ongoing
U6.4	Influence developers to incorporate best practice sustainability and traditional neighbourhood design into development by:  • implementing ESD Policy through Council's The Guidelines for Planning and Development  • conducting education and advocacy programs  • offering incentives to developers  • working in partnership with the development industry.	Lead: Sustainability Planning Support: Strategic Planning and Design	Ongoing
U6.5	Demonstrate leadership by sharing Council's achievements in sustainable urban development and building on partnerships with the City of Whittlesea community, other local government professionals, State Government and non-government organisations and property developers.	Lead: Marketing and Communications	Ongoing
U6.6	Investigate the feasibility of Council becoming a member of the International Sustainable Cities Planning for Long-term Urban Sustainability (PLUS) Network.	Lead: Sustainability Planning	Medium
U6. <sub>7</sub>	Encourage sustainable design within the municipality through demonstrating sustainability leadership in all Council building and infrastructure projects.	Lead: Major Projects	Ongoing

# Waste Management and Resource Recovery



# Implementation at Local Level

**Green Purchasing Policy** 

Municipal Waste and Resource Recovery Strategy 2012-2022 (under development)

**Procurement Policy** 

### Indicators

- Total Waste (kg per household per year)
  - Waste to Landfill (kg per household per year)
  - Waste diverted from landfill and recycled (recycling and garden organics) (kg per household per year)
- · Waste contamination
  - Material contaminants in recycling bins (kg per household per year),
  - Recyclable materials in waste bins (kg per household per year)
- Visual litter audit of shopping centres
- Community opinion on litter
- Purchase of environmentally friendly products by Council (% of total Council spend)

Policy Direc	Policy Direction			
WM1	Council will aim to reduce the negative impacts of waste sent to landfill and increase the proportion of materials recycled or reused where a clear benefit to the community exists.			
Reference	Strategies and Approaches	Responsibility	Priority	
WM1.1	Council to make sustainable decisions on dealing with waste from their own operations.	Lead: Environmental Operations	Ongoing	
	Reduce waste to landfill in its own operations through waste prevention and where it is the most sustainable option, divert valuable recoverable materials for reuse or recycling.	Support: Facilities Management		
WM1.2	Council will make decisions on the provision of recycling and waste collection services based on balancing economic, social and environmental factors, through a cost-benefit analysis approach, that aims to provide the optimal net-community benefit to City of Whittlesea community.	Lead: Environmental Operations	Ongoing	
WM1.3	Investigate the potential to extend Council's kerbside recycling collection service (and accompanying education component) to non-residential properties.	Lead: Environmental Operations	Short - Medium	
WM1.4	Encourage the City of Whittlesea community to use Council's current services correctly therefore sending less waste to landfill and recovering, recycling and reusing more materials. Promote through a range of communication and education avenues.	Lead: Environmental Operations	Ongoing	

Policy Direc	tion		
WM1	Council will aim to reduce the negative impacts of waste sent to landfill and increase the proportion of materials recycled or reused where a clear benefit to the community exists. <i>Continued</i>		
Reference	Strategies and Approaches	Responsibility	Priority
WM1.5	Continue to encourage and support on-site compositing and worm farming of garden and food organics.	Lead: Environmental Operations Support: Sustainability Planning	Ongoing
WM1.6	Support the commercial and industrial sector to avoid waste, where practical, through cleaner production practices and recovering valuable materials.	Lead: Environmental Operations Support: Economic Development	Short - Medium
WM1.7	Investigate high value materials that are currently treated as waste, and determine the feasibility of recovering them for reuse or recycling.	Lead: Environmental Operations Support: Facilities Management, Major Projects	Short – Medium
WM1.8	Develop policy positions and approaches for dealing with new waste streams which will be generated within the City of Whittlesea.	Lead: Environmental Operations	Short – Medium
WM1.9	Continue bin inspection program primarily as an effective education and engagement tool to encourage correct use of bins and avoid contamination of the recycling streams.	Lead: Environmental Operations	Short
WM1.10	Review the new residents' kit on an annual basis to check the appropriateness and of information, and whether it is understood by the Culturally and Linguistically Diverse community. Information should include how to manage household waste and what happens to various waste streams.	Lead: Environmental Operations Support: Marketing and Communications, Community Cultural Development	Short

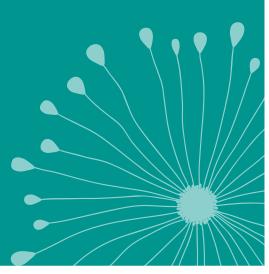
Policy Direc	Policy Direction			
WM2	Council will utilise integrated education, infrastructure and enforcement approaches to help manage and prevent litter and rubbish dumping.			
Reference	Strategies and Approaches	Lead Responsibility	Priority	
WM2.1	Continue to coordinate community education and engagement programs to stop littering and rubbish dumping.	Lead: Environmental Operations	Short	
	and rubbish damping.	Support: Sustainability Planning		
WM2.2	Continue to investigate reports of dumped rubbish and work collaboratively with the	Lead: Environmental Operations	Short	
	Environment Protection Authority to follow up with enforcement and litter prevention strategies.	Support: Sustainability Planning		
WM2.3	Promote the Environment Protection Authority's litter reporting system to the community.	Lead: Environmental Operations	Short	
		Support: Sustainability Planning		
WM2.4	Advocate to relevant government agencies for a subsidy for safe domestic asbestos	Lead: Environmental Operations	Short	
	removal and disposal.	Support: Advocacy and Communications		
WM2.5	Undertake a more strategic approach to litter prevention and debris management through implementation of the Waste Management Strategy 2012 - 2020 and Stormwater Management Plan 2012 - 17.	Lead: Environmental Operations	Short	



Policy Direc	tion		
WM3	Council will purchase environmentally provide leadership to the community who		
Reference	Strategies and Approaches	Responsibility	Priority
WM3.1	Review Council's Green Purchasing Policy.	Lead: Environmental Operations	Short
		Support: Procurement, Financial Services, Sustainability Planning	
WM3.2	Look for new opportunities to purchase	Lead: All Departments	Short
	environmentally preferable materials.	Support: Environmental Operations	
WM3.3	Increase annual expenditure on environmentally preferable purchases (relative to the Council's annual budget) where clear benefits based on evidence can be established.	Lead: Procurement	Ongoing
		Support: All Departments, Environmental Operations, Sustainability Planning	
WM3.4	Support Council Officers with purchasing	Lead: Procurement	Ongoing
	responsibilities to implement the sustainable purchasing goals articulated in the Council's Procurement Policy.	Support: Environmental Operations	
WM3.5	Deliver training and capacity building activities	Lead: Procurement	Short
	on sustainable purchasing in conjunction with Procurement Policy training for Council Officers with purchasing responsibilities.	Support: Environmental Operations, Sustainability Planning	
WM3.6	Inform the community about environmentally preferable products through education and	Lead: Environmental Operations	Ongoing
	engagement activities.	Support: Sustainability Planning	

Policy Direct	Policy Direction				
WM4	Council will advocate for Extended Producer Responsibility (EPR) which makes product manufacturers take responsibility for the waste generated by their products where there is clear evidence of the negative impacts associated with the product on the community.				
Reference	Strategies and Approaches	Responsibility	Priority		
WM4.1	Advocate to State Government for action on emerging problematic waste streams, such as domestic asbestos disposal, to reduce the additional cost imposition on Local Government and potentially high public health risk of dealing with this waste stream.	Lead: Environmental Operations Support: Advocacy and Communications	Ongoing		
WM4.2	Council to lobby the Federal and State Governments, and other agencies, to reduce product packaging where appropriate, to minimise waste and the effects of litter in the community and on the environment.	Lead: Environmental Operations Support: Advocacy and Communications	Ongoing		

# Change Strategies





# Implementation at Local Level

Whittlesea 2025 – Strategic Community Plan

Sustainability Outreach Whittlesea

Whittlesea Green Industry Strategy

Whittlesea Community News

City of Whittlesea Corporate Plan

**Directorate Plans** 

**Departmental Business Plans** 

Environmental Sustainability communications and marketing strategy

## **Indicators**

- Council participation in external sustainability activities
- Council participation in internal practices which contribute to environmentally sustainable outcomes within the Council
- Community participation in sustainability activities (e.g. number of people/groups)
- Self-reported behaviour for specific environmental behaviours

Policy Direc	tion		
CS1	Council will incorporate sustainability considerations in the decision making processes for service and program planning, delivery, monitoring, evaluation, reporting and procurement processes.		
Reference	Strategies and Approaches	Responsibility	Priority
CS1.1	Progressively embed Environmental Sustainability Strategy Policy Directions, Strategies and Approaches into the annual Corporate and Department Business Planning processes.	Lead: All Departments	Ongoing
CS1.2	Incorporate environmental sustainability indicators and targets as specified in this Strategy (and its associated implementation plans) into:	Lead: All Departments	Ongoing
	Corporate and Department Business Plans		
	Employment contracts for senior management.		
CS1.3	Incorporate sustainability assessment criterion in decision making processes for Council including Council Reports, contracts, capital works and budget initiatives.	Lead: Sustainability Planning	Ongoing
CS1.4	Review and evaluate sustainability related procurement processes and practices every year to determine the ongoing effectiveness of the policy and identify areas for improvement.	Lead: Economic Development	Ongoing
CS1.5	Implement initiatives which continually build the capacity and expertise of Council staff to deliver best practice sustainability programs and services through information provision, professional development, training and recognition.	Lead: Sustainability Planning Support: Human Resources, All Departments	Short
CS1.6	Strengthen the role and capacity of the Staff Environment Group to better support the organisation to implement the Environmental Sustainability Strategy and Staff Values, where it relates to improving sustainable work practices.	Lead: Sustainability Planning	Ongoing

Policy Direct	Policy Direction			
CS2	Council will continuously review, improve and monitor its own sustainability performance.			
Reference	Strategies and Approaches	Responsibility	Priority	
CS2.1	Monitor and report progress in achieving sustainable outcomes for the municipality based on the environmental indicators identified in this Strategy. Where appropriate report results annually to Council to inform decision making.	Lead: Sustainability Planning	Ongoing	
CS2.2	Report Council's sustainability performance and associated activities to the community through the Council's Annual Report.	Lead: Sustainability Planning	Ongoing	
CS2.3	Utilise Council's business planning processes (i.e. budget and capital works planning, departmental business plans, and corporate planning processes) to consistently report and evaluate sustainability performance.	Lead: Work smart	Medium	
CS2.4	Progressively align and embed sustainability goals and targets as identified in this Strategy with the Council's Four Year Action Plan (2013-2017).	Lead: Work smart	Short	
CS2.5	Support ongoing organisational change programs which include modules that aim to continue the development of a culture of sustainability consistent with the goals of this Strategy and Council's sustainability staff values.	Lead: Human Resources Support: Sustainability Planning	Short	



Policy Direc	etion	Policy Direction			
CS3	Council will demonstrate leadership and market its own achievements to the Whittlesea and broader community.				
Reference	Strategies and Approaches	Responsibility	Priority		
CS3.1	Continue to promote Council and community activities, programs and achievements through Council publications, broader media avenues and professional / industry publications.	Lead: Marketing and Communications	Ongoing		
CS3.2	Develop and implement a communications and marketing strategy specific to the Environmental Sustainability Strategy to effectively communicate the strategy goals and implementation progress both within Council (internal to the organisation) and to the broader community.	Lead: Sustainability Planning Support: Marketing and Communications	Short		
CS3.3	Progressively establish Council buildings and facilities as sustainability demonstration projects, with the aim of establishing the Council as a leader in sustainable design, materials selection and technologies.	Lead: Sustainability Planning Support: Marketing and Communications	Medium		
CS3.4	Every two years prepare an 'environment indicators report' which details progress against the indicators listed in this strategy and associated key achievements. The report will be available to the community and will assist Council in assessing whether this Strategy is meeting its stated goals.	Lead: Sustainability Planning	Ongoing		



Policy Direct	tion		
CS4	Council will deliver programs that influenthe Whittlesea community to live more su		
Reference	Strategies and Approaches	Responsibility	Priority
CS4.1	Provide a tailored range of educational and behaviour change activities and programs that are accessible to a wide section of the community. Periodically evaluate programs and activities to ensure that delivery methods and approaches are effective and appropriate for the audience.	Lead: Sustainability Planning Support: Environmental Operations	Ongoing
CS4.2	Continue to provide a 'sustainable home advisory service' to residents for the provision of independent advice and referral to sustainability programs and services. Progressively improve the marketing and communications of this service to maximise exposure to residents.	Lead: Sustainability Planning	Ongoing
CS4.3	<ul> <li>Work in partnership with local service providers, including libraries and adult learning centres to:</li> <li>incorporate sustainability themes and activities into existing programs and services</li> <li>deliver programs which aim to improve household sustainability.</li> </ul>	Lead: Sustainability Planning	Ongoing
CS4.4	Foster increased collaboration between neighbouring Council's and relevant local service providers and organisations that work on community based household sustainability programs in order to:  • learn from each other  • maximise community benefits and reach  • share resources  • develop joint programs  • avoid unnecessary duplication.	Lead: Sustainability Planning	Ongoing
CS4.5	Implement programs to assist businesses and organisations improve their sustainability performance.	Lead: Sustainability Planning Assist: Economic Development	Short
CS4.6	Utilise demonstration projects to motivate others to take action on sustainability.	Lead: Sustainability Planning	Ongoing

Policy Direction			
CS4	Council will deliver programs that influence and support the Whittlesea community to live more sustainably. <i>Continued</i>		
Reference	Strategies and Approaches	Responsibility	Priority
CS4.7	Establish mechanisms to encourage and recognise the achievements of local sustainability leaders, and to foster the development of new sustainability leaders in the City of Whittlesea community.	Lead: Sustainability Planning	Ongoing
CS4.8	Continue to support and foster local sustainability community initiatives and leaders through Council's Community Development Grants.	Lead: Sustainability Planning	Ongoing
CS4.9	Work in partnership with local community groups and organisations to source funding for local sustainability programs.	Lead: Sustainability Planning	Ongoing
CS4.10	Actively engage and facilitate the involvement of the local community in the development of sustainability policy, programs and strategies through Council's community based advisory committee, the Sustainability Programs Advisory Committee and other key consultation processes.	Lead: Sustainability Planning	Ongoing
CS4.11	Encourage, support and facilitate the establishment of new community and sustainability groups which encourage sustainable behaviours within the local community.	Lead: Sustainability Planning	Ongoing

Policy Direction			
CS5	Council will advocate for sustainability.		
Reference	Strategies and Approaches	Responsibility	Priority
CS5.1	Council will advocate for sustainability.  This includes on issues such as climate change mitigation, water efficiency and alternative water supplies, protection of green wedges, sustainable urban development, provision of sustainable transport infrastructure and services in growth areas. (Refer to L6, CC5, B6.4, B8, U4.1, U4.2, U6, WM2.4, WM5 for specific advocacy based policy directions and strategies).	Lead: Sustainability Planning	Ongoing
CS5.2	Council will support the City of Whittlesea community to advocate for sustainability.	Lead: Sustainability Planning	Ongoing



# References

Page	Footnote	Reference		
2	1	World Commission on Environment and Development, <i>Our Common Future</i> (Oxford: Oxford University Press, 1987)		
3	2	City of Whittlesea, Shaping Our Future Whittlesea 2025 Strategic Community Plan - Future Direction Six: Living Sustainably.		
6	3	Australian Bureau of Statistics (ABS), <i>Regional Population Growth</i> , <i>Australia</i> Publication no. ABS3218.0.		
	4	City of Whittlesea, Annual Household Survey 2011.		
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28	12	Intergovernmental Panel on Climate Change (IPCC), Fourth Assessment Report (AR4) Climate Change 2007: Synthesis Report (Geneva: IPCC, 2007).		
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43	18	Productivity Commission, <i>Waste Management Report No.</i> 38, (Canberra: Commonwealth of Australia, 2006), pXXVII.		
	19	Environment Protection Act 1970		
45	20	D. Pearce, "Does European Union Waste Policy Pass a Cost-Benefit Test?" in <i>Rethinking the Waste Hierarchy</i> , eds. C. Rasmussen and D. Vigso, 66-79 (Copenhagen: Environmental Assessment Institute).		
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58	22	'Adaptive Management' is cyclic in nature and based on the simple idea that we are always learning from what we do. That is, as we plan, implement and monitor our conservation action plans we are continually learning and in turn changing our activities to get better biodiversity outcomes.		

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