

Biodiversity encompasses the full range of life that exists in an area, including animals and plants, their genes and the ecosystems they shape. These species and habitats are constantly evolving and adapting to environmental changes.

Whittlesea contains a diversity of ecosystems ranging from grasslands in the west, to scattered woodlands and wetlands and wet forests in the north.

Key goal and directions

The biodiversity goal for the Whittlesea Green Wedge is as follows:

GREEN WEDGE GOAL

Biodiversity: Healthy and enduring ecosystems with a variety of habitats and native species

This section of the Management Plan will focus on the following sub-theme:

BIODIVERSITY Sub-theme

1. Flora, fauna and habitat

Each sub-theme describes key features and values, conveys community views, identifies planning controls and provides planning guidelines, and summarises key programs. Relevant actions are listed in Part 3: Action Plan.

Refer back to 'Rural Land Stewardship' for a local perspective on EcoMarkets.

Ecosystem Services

Ecological Sustainable Development (ESD) is concerned with maintaining the long-term environmental and economic viability of the land and its natural resources. This concept is explored more fully in the document titled *Sustainable Farm and Land Management Support Programs* (City of Whittlesea 2005).

To do this however, it is imperative that we use natural resources in ways that maintain and where possible improve their range, variety and quality (Commonwealth Government 1992). This approach is vital for the community as a whole as these resources form the basis of the economy on a local, national and global scale.

Biodiversity and its conservation are essential for achieving sustainable land management. An environment that is rich in biological diversity provides the broadest array of options for sustainable economic activity, for nurturing human welfare and for adapting to change (Department of the Environment, Sport and Territories 1996).

As our knowledge of ecosystems and the benefits of native vegetation are steadily increasing, there is a growing urgency to restore degraded ecosystems and protect what remains.

Increasingly, the value of services provided to our community by natural systems is being recognised.

The environment provides services that if unavailable would incur significant economic cost.

This includes the maintenance of hydrological cycles (groundwater recharge, watershed protection and buffering against extreme events), climate regulation, soil production and fertility, protection from erosion, nutrient storage, nutrient cycling, pollutant breakdown and absorption (Department of the Environment, Sport and Territories 1996).

These processes or 'ecological services' are fundamental to the quality of human life and economy, but they are frequently undervalued and often ignored.

Bioregions

The City of Whittlesea contains three of the 21 Victorian biogeographic regions (bioregions): Victorian Volcanic Plain, Highlands— Southern Fall and Central Victorian Uplands.

The Victorian Volcanic Plain bioregion covers three quarters of the municipality, whilst the Highlands-Southern Fall bioregion covers approx 23 per cent and the Central Victoria Uplands occurs in several pockets, accounting for the remaining 2 per cent of the municipality.

BIODIVERSITY

6. Flora, Fauna and Habitat



The range of biogeographically conditions present supports a variety of natural ecosystems. This includes the volcanic and alluvial plains in the west and centre of the municipality that sustain grasslands, woodlands and wetland habitats. The foothill region of the Plenty Ranges supports dry and valley sclerophyll forests, and the north-east tip sustains damp and wet sclerophyll forest habitats.

The variety of ecosystems present in the municipality fulfils a key aspiration of regional catchment strategies that ecosystems are *...well represented, maintained in good condition and protected because of their significant social, environmental and economic value* (PPWCMA 2004 p147).

BioSites

A BioSite is a physical area of land or water containing biological assets with particular attributes, such as the presence of rare or threatened flora, fauna or habitat required for their survival and/or rare or threatened vegetation communities (DSE 2005d).

While 149 national, 288 state, 406 regional and 72 sites of local biodiversity significance were identified in the Port Phillip and Westernport region, the BioSites database is a work in progress. Whittlesea currently has fifty biosignificant sites. Refer to Map 15 and Table 4 over the page for biosite distribution.

Legislative framework

Protection and management of biodiversity within the City of Whittlesea is influenced by a range of legislation. The main areas of interest to this Management Plan are listed briefly as follows.

- The national framework focusing on maintaining the nation's biodiversity is the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. Threatened species, habitats and processes can be listed. Threat Abatement Plans and Threatened Species and Community Recovery Plans have also been developed.
- The state framework for the protection of Victoria's biodiversity is the *Flora and Fauna Guarantee Act 1988*. Threatened species, habitats and processes can be listed. Listed threatened species, communities and potentially threatening processes have Action Plans developed.
- The *Wildlife Act 1975* enables the protection and conservation of wildlife. It provides for the establishment and management of nature reserves in Victoria. The prevention of species extinction and facilitation of access to wildlife is also provided for.
- Protection of biodiversity is enabled by the *Planning and Environmental Act 1987* through the Victorian Planning Provisions, and the Whittlesea Planning Scheme, administered the City of Whittlesea. Recognition of the value of biodiversity is enabled by the *Planning and Environmental Act 1987* through the Victorian Planning Provisions and the Whittlesea Planning Scheme, administered by the City of Whittlesea.



TABLE 4: BioSites of National Significance

Bald Hill (Merri Creek) Grasslands

This site of approximately 1200 hectares supports one of the most diverse and representative volcanic plains fauna and faunal habitat known. Located east of the Merri Creek, extending from Donnybrook Road to north of Grants Road, Donnybrook, the site supports over 90 species of fauna including one of the most diverse collection of reptiles and frogs on the volcanic plains of Greater Melbourne.

Over 200 indigenous plant species are recorded which is highly diverse for the Victorian Volcanic Plain Bioregion. The site has national significance for a number of vegetation communities including Plains Grassy Woodland, Plains Grassland and Herbland-Sedgeland Complex.

Major threats to this site include habitat fragmentation through farm subdivision, soil disturbance through removal of rocks/soil, habitat loss and habitat damage by domestic stock grazing. The higher rainfall of this site provides a contrast to nearby Plains Grasslands on basalt-derived soils with lower rainfall.

Craigieburn Grasslands

An area of approximately 705 hectares (inclusive of O'Hern's Road Wetlands) this site supports the finest remnant of Plains Grassland, in addition to several different communities including Grassy Wetland, Riparian Scrub and Stony Knoll Grassland.

Located east of the Hume Freeway and the Merri Creek and south of Craigieburn Road, the site contains nationally significant plant species including possibly the most extensive and secure population of several ground species in the Bioregion. The grasslands also support a number of nationally significant fauna species including nesting adult bird species.

Major threats to the site include disturbance of habitat by reptile hunters, competition from environmental weeds, habitat damage by domestic stock grazing and inappropriate fire regimes.

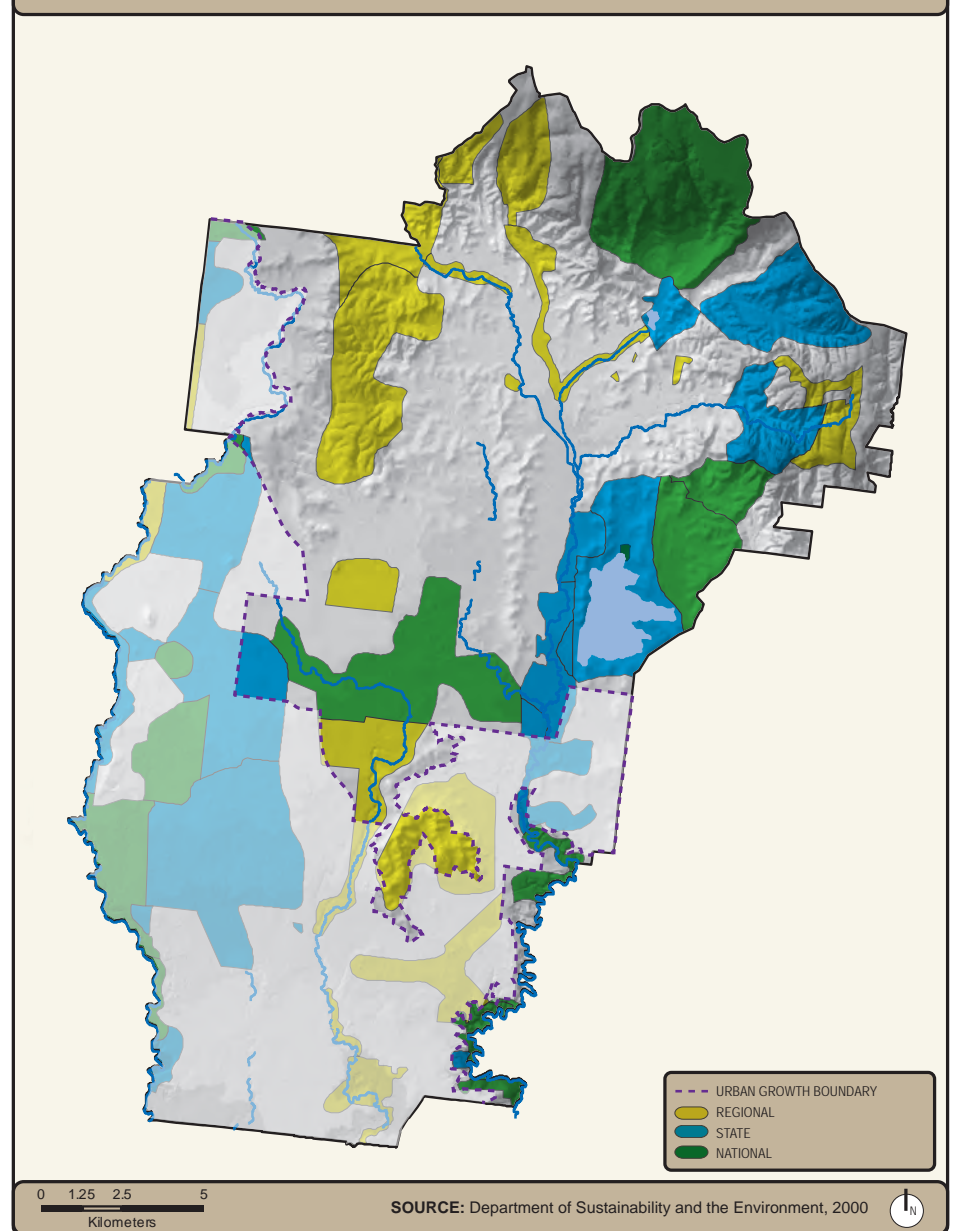
Plenty Gorge Parklands (Plenty/Janefield)

This 590 hectare portion of the Plenty Gorge Parklands is part of the most significant bushland in metropolitan Melbourne, providing a habitat link for over 150 fauna species within the urban area. This includes the highest diversity of butterflies recorded in north-east Melbourne. The parklands also provide significant breeding sites for endangered bird and butterfly species.

The site supports intact and rare representatives of vegetation at the convergence of the Central Victorian Uplands and Victorian Volcanic Plains Bioregions. Over 400 indigenous plant species have been recorded. Landforms include foothill alluvial and volcanic plain which support eleven vegetation communities containing the highest diversity of regionally threatened species in the Port Phillip Region (including state and nationally threatened species and plant communities).

Major threats to the site include recreational activities, competition by environmental weeds, declining water quantity (caused by the weir at the Maroondah pipeline) and quality, carnivory and herbivory by dogs, rabbits and native species, and adjoining urban development.

MAP 15 DISTRIBUTION OF BIOSITES



BIODIVERSITY

6. Flora, Fauna and Habitat



6.1 OBJECTIVE

The objective for this sub-theme is:

Flora, fauna and habitat objective

To ensure the biodiversity and environmental values of the Whittlesea Green Wedge are identified, protected and enhanced on public and private land.

Farmers have a critical role to play in 'farming nature' and increasing the interconnectedness and linkage between areas of habitat significance.

6.2 Features and Values

Flora, fauna and habitats within the municipality have intrinsic value, as well as environmental, social and economic benefits for residents and visitors alike.

There are many areas of environmental significance throughout the municipality and they include the following:

- Extensive areas of mature River Red Gum in an open plains grassland environment.
- Significant areas of riparian flora and fauna associated with the waterways of the Plenty River and Merri and Darebin Creeks (and their tributaries).
- Large areas of State Forest on the Great Dividing Range.
- Parts of Kinglake National Park and significant bushland areas adjacent to the park.
- Water catchment areas associated with the Toorourrong and Yan Yean Reservoirs with mature forests and associated fauna.

- Wetland areas containing significant faunal habitats associated with the waterways of the Plenty River and Merri Creek.

Linkages between these areas are important. Parks Victoria has been instrumental in reconnecting remnant patches of vegetation to larger core areas of habitat in urban and urban fringe parklands. Habitat corridors can also be created using native roadside vegetation, along creeks, drainage lines and railway corridors.

6.2.1 Significant Habitat

Within the City of Whittlesea, most remnant native vegetation is considered to be endangered. In some cases, the municipality contains the only remaining vegetation community within the region.

The Western Plains Grassland Community and the Western Basalt Plains Grassy Woodland Floristic Community are included on the Victorian list of threatened communities of flora and fauna under the *Flora and Fauna Guarantee Act 1988*.

Within Whittlesea, two threatened communities of national significance are listed on the *Environment Protection and Biodiversity Conservation Act 1999*:

- **Natural Temperate Grassland of the Victorian Volcanic Plain** Critically Endangered, listed on EPBC Act 21 Jun 2008
- **Grassy Eucalypt Woodland of the Victorian Volcanic Plain** Critically Endangered, listed on EPBC Act 25 June 2009

These ecological communities are recognised as critically endangered, the highest risk category possible. They provide habitat for several EPBC Act-listed threatened species and face an extremely high risk of extinction in the wild in the immediate future.

6.2.2 Significant Flora

Map 16 (opposite) demonstrates the distribution of vegetation types within the City of Whittlesea. An Ecological Vegetation Class (EVC) refers to one type of native vegetation classification based on a combination of life form, floristic and ecological characteristics. Each EVC has a collection of vegetation communities that occur across a biogeographic range.

Vegetation loss has been particularly severe in the Victorian Volcanic Plains bioregion with an estimated 94 per cent of the coverage of EVCs present in this bioregion being classified as either endangered or vulnerable vegetation communities (PPWCMA 2006).

The national Environment Protection and Biodiversity Conservation Act 1999 lists two critically endangered ecological communities that are found within the municipality; the Grassy Eucalypt Woodland of the Victorian Volcanic Plain, and the Natural Temperate Grassland of the Victorian Volcanic Plain.



- Grassy Eucalypt Woodland of the Victorian Volcanic Plain

Listed under the EPBC Act on 25 June 2009, this ecological community is characterised by *Eucalyptus camaldulensis* (River Red Gum) with a sparse shrub understorey and a species-rich ground layer of grasses and herbs. It provides habitat for several EPBC Act-listed threatened plants and animals. This eucalypt woodland is restricted to Quaternary basalt soils and occurs on flat to gently undulating plains and associated stony knolls, generally at elevations up to 500 metres above sea level.

The main threats to long term survival include vegetation clearance for agriculture and urban development, fragmentation of remnants, weed invasion, and inappropriate management regimes (i.e. fire, grazing, mowing) that over time impact on long-term conservation outcomes (Threatened Species Scientific Committee, 2008afd).

- Natural Temperate Grassland of the Victorian Volcanic Plain

Listed under the EPBC Act on 21 June 2008, this community is characterised by a ground layer of native tussock-forming perennial grasses interspersed with a variety of herbs and wildflowers including daisies, lilies, peas and orchids. Native grasses that usually dominate are kangaroo-grass (*Themeda triandra*), wallaby-grasses (*Austrodanthonia* species), spear-grasses (*Austrostipa* species) or tussock-grasses (*Poa* species). Large shrubs and trees are mostly absent from this ecological community.

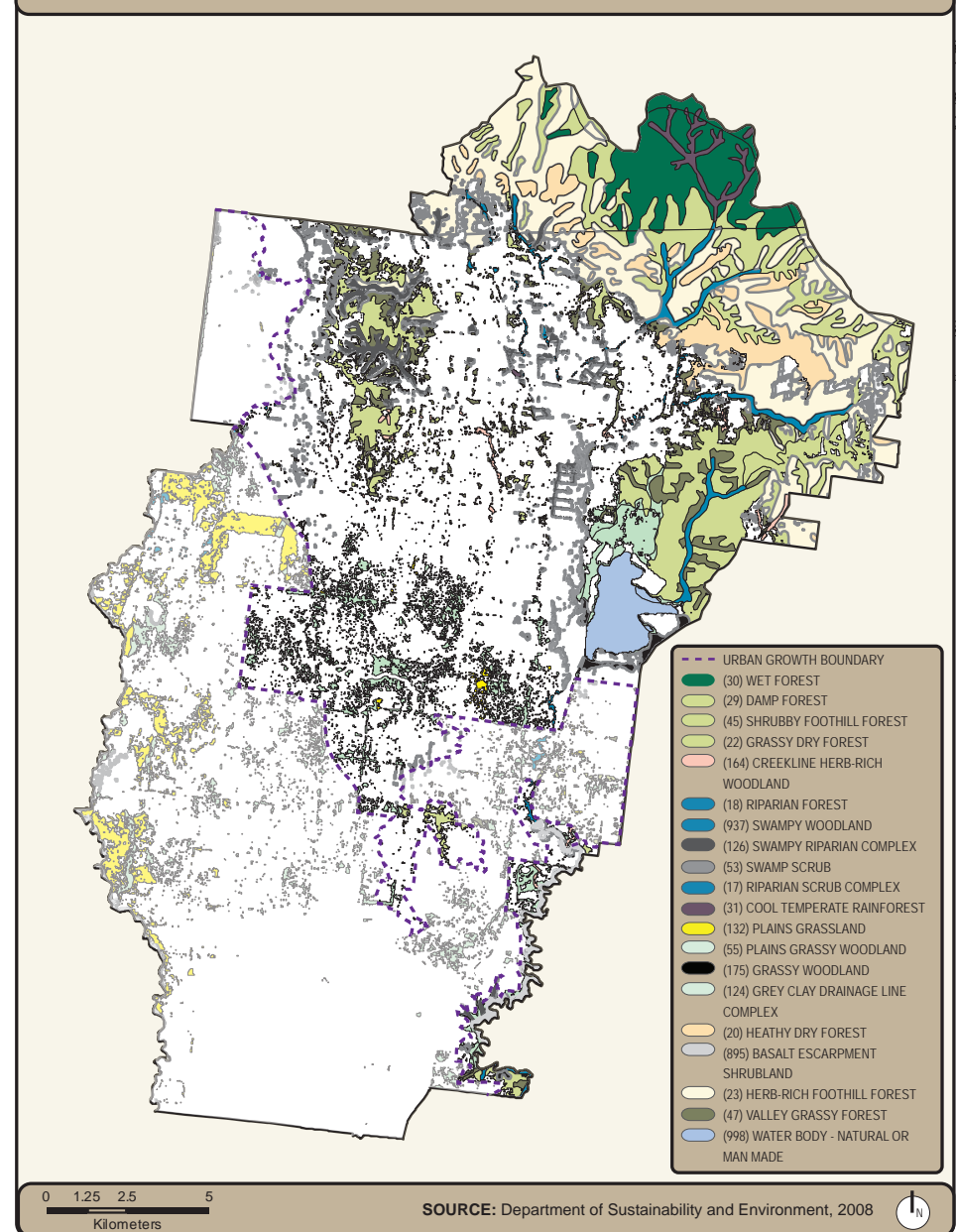
This grassland is limited to the basalt plain of Victoria and has a very restricted geographic distribution. It has suffered a very severe decline in terms of its extent and quality and provides habitat for a variety of nationally threatened animals and plants. The key threats to its survival include land clearing, changes to land management practices, application of herbicides, addition of fertilisers, weed invasion, urban development, and lack of knowledge or understanding of native grassland remnants (DEWHA, 2008act).

The following is a description of the vegetation types present within the visual character areas of the Whittlesea Green Wedge.

Western Plains

The western plains occupy the south-western portion of the City of Whittlesea. Most of the plains are now contained within the urban area except for a small portion of land to the east of Epping Road and the Urban Growth Boundary.

MAP 16 CURRENT ECOLOGICAL VEGETATION DISTRIBUTION



Western Plains

The western plains occupy the south-western portion of the City of Whittlesea. Most of the plains are now contained within the urban area except for a small portion of land to the east of Epping Road and the Urban Growth Boundary.

Plenty Valley

Due to land clearance for agricultural activities, much of the original vegetation of the Plenty Valley has been removed. Remnant vegetation communities are confined to riverbanks and wetlands. Vegetation communities present along the riverflats include Swamp Scrub, dominated by *Melaleuca ericifolia* (Swamp Paperbark) and *Eucalyptus ovata* (Swamp Gum).

Along watercourses, riparian communities are present and often dominated by *Eucalyptus camaldulensis* (River Red Gum), *Leptospermum lanigerum* (Woolly Teatree) and *Callistemon sieberi* (River Bottlebrush).

Plenty Ranges

The Plenty Ranges support the greatest diversity of vegetation communities within the municipality. In the north, Damp and Wet Forests occur in areas of steep terrain. Further down the slope, Dry Forests (mainly Scrubby Foothill Forest and Herb-Rich Foothill Forest) dominated by eucalypts (e.g. Narrow-leaf Peppermint, Manna Gum and Messmate) occur. Complex understorey layers are often shrub-dominated or contain species-rich groundstoreys of herbs. The Valley Forest community often occurs on southerly slopes, dominated by eucalypts (e.g. Box and Stringybark) with a grassy understorey.

On the exposed areas of the hills and along ridgelines, the dominant vegetation type is the Dry Sclerophyll Forest. Dominated by a mixture of eucalypts in the canopy (e.g. Red Stringybark, Red Box, Long-leaf Box and Candlebark), the understorey contains a high diversity of species including wattles, peas, lilies and tussock grasses.

6.2.3 Net Gain

Victoria's Native Vegetation Management - A Framework for Action establishes the strategic direction for the protection, enhancement and revegetation of native vegetation across Victoria (DSE 2002a). The goal is *to achieve a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain* (DSE 2002a p14).

The three steps to apply the net gain approach to protection and clearance decisions are:

1. Avoid the removal of native vegetation
2. Minimise the removal of native vegetation through appropriate planning and design
3. Appropriately offset the loss of native vegetation.

This Management Plan has found that within the Whittlesea Green Wedge, the declining quality of existing remnant vegetation is just as much of a concern as the removal of native vegetation.

The City of Whittlesea is developing a local policy regarding native vegetation retention and net gain offsets, which is soon to be placed on public exhibition. Should this policy be approved, it is proposed to be incorporated into the Planning Scheme as part of the Local Policy Framework, Clause 22. The two main objectives of the policy relevant to this Management Plan are:

- To ensure that all net gain offsets from the unavoidable loss of High and Very High conservation significance native vegetation are secured in strategic locations and within close proximity to the area of loss.
- To ensure that net gain offsets from the unavoidable loss of large old trees of High and Very High conservation significance are secured through the 'protect and recruit' requirements of the Port Philip and Westernport Native Vegetation Plan.

As part of the UGB expansion, State Government is also proposing to designate a River Red Gum 1,200 hectare woodland reserve within the green wedge, in which unavoidable vegetation losses from the new urban growth area are to be directed. The exact location for this reserve is yet to be determined, however it is expected that it will be accommodated within areas having biodiversity values.



6.2.4 Significant Fauna

Native animal species recorded within the municipality include 200 birds, over 20 mammals, about 30 reptiles, six fish and 15 amphibians (City of Whittlesea 1992).

Of these species, it is estimated that twenty fauna species are threatened (CoW 2000b). This includes the swift parrot, plains wanderer and striped legless lizard. These species are listed in the *Flora and Fauna Guarantee Act 1988*.

The national *Environment Protection and Biodiversity Conservation Act 1999* lists two threatened species of national significance found in the municipality:

- **Golden Sun Moth** (*Synemon plana*) Critically Endangered, listed on *EPBC Act* 3 Dec 2002. The Golden Sun Moth was thought to be locally extinct south of the Great Dividing Range from 1980. In 2003 moths were re-discovered on the outskirts of Melbourne. These moths are at risk from urban development in grassland areas (Museum Victoria 2006).

The Golden Sun Moth is a day flying moth. Adult moths are unable to feed. The Golden Sun Moth lives in grasslands which are dominated by Wallaby Grass and will not fly more than 100m away from suitable habitat (Department of Environment, Water, Heritage and the Arts 2009)

- **Striped Legless Lizard** (*Delmar impar*) Vulnerable, listed on *EPBC Act* 16 July 2000. The Striped Legless Lizard grows up to 9cm long. It has distinctive stripes along each side of its body. The lizard is found in grasslands, and shelters under rocks, in tussocks and leaf litter. Clearing, grazing and urban development threaten the

Striped Legless Lizard (Museum Victoria 2006).

The Striped Legless Lizard was once found in grasslands dominated by Kangaroo Grass and Spear Grass. However the lizard has adapted and can now be found in grasslands and pastures with Rushes, *Poa* spp. and a range of introduced pasture grasses. The lizards feed on spiders, grasshoppers, crickets and cockroaches.

A recovery plan has been developed for the Striped Legless Lizard and a recovery plan for the Golden Sun Moth is being prepared. These plans are binding on Government and agencies once they are adopted by the relevant Minister.

- **Growling Grass Frog** Vulnerable, listed on the *EPBC Act* December 2009. The growling grass frog, also commonly known as the Southern Bell Frog; the Warty Swamp Frog and the Green Frog, is a species of ground dwelling tree frog native to south eastern Australia and Tasmania. The Growling Grass Frog can grow up to 10cm (4 inches) in length; it has a mottled bright green and bronze colour across its back with dark brown enamelled bumps and a pale cream underside.

The species is associated with large swamps, permanent dams, ponds and lakes (particularly those with reeds) in woodlands, shrub land, open and coastal areas. The frog is an agile climber, but is most often found amongst dense reeds or along swampy grasslands.

It is believed that the Growling Grass Frog is in decline across much of its original territory. In some regions it has disappeared altogether.

State guidelines were prepared and published in 2009 outlining details of how to identify potential habitats of this species; survey requirements when collecting information regarding the species and legislative triggers for the removal for potential Growling Grass Frog habitats. Council works in line with these guidelines and all other legislative measures to ensure the continued survival of this species within the municipality.

6.2.5 Threats to Biodiversity

The following provides an overview of local threats to flora and fauna.

Urban Development

Urban development threatens fauna through the destruction and removal of valuable habitat. As the development continues, native vegetation is inevitably removed and habitat corridors lost. There is an increase in roads and traffic increasing the chances of the native fauna being killed or severely injured on the roads. Animals at particular risk are wombats and kangaroos.

Patches of remnant vegetation are sometimes retained in local parks and become surrounded by development. This effectively traps the fauna and causes the vegetation and animals to be more vulnerable to threatening processes such as fire, weeds and disease. Overcrowding can threaten the integrity of the remnant vegetation as over-grazing becomes an issue. Mobs of kangaroos have been placed in this situation, particularly throughout the urban areas of Whittlesea.



Fragmentation of Habitat

Fragmentation of habitat is a growing threat. As the patches of remnant vegetation become more fragmented and isolated, genetic diversity becomes pressured as movement of the species is limited. The 'edge effect' (degradation of habitat on the edge of a patch due to threatening processes) becomes more prevalent as fragmentation continues and more edges are created. This in turn lowers the amount of suitable habitat available to native wildlife.

Wildlife Corridors and Fencing

To ensure that fauna is protected, it is essential that habitat is preserved. Remnant native vegetation needs to be protected and enhanced to provide habitat for a range of wildlife. Without protection and careful management, vegetation can become degraded and unsuitable as habitat.

To ensure the long term survival of native wildlife, it is vital that habitat links and wildlife corridors are maintained and in some cases re-established. These biolinks allow fauna to move about the landscape and allows animals to find the food, water and shelter they require.

Through urban and rural land, biolinks facilitate gene flow, increasing genetic diversity within remnant vegetation patches, parks and reserves. Wildlife corridors and shelter belts facilitate the safe movement of animals.

Inappropriately located fencing, or fences which are not designed to be wildlife-friendly, can be a barrier to wildlife movement. This barrier leads to wildlife

that is more vulnerable to threats such as fire and predation.

Kangaroos

With the ongoing growth of urban development in Melbourne's fringe areas, a conflict is occurring between urban development and the rural habitats of native and indigenous species. In some cases this conflict also occurs in rural areas where a landholder conducts agricultural activities.

In its most obvious form, the conflict involves kangaroos being forced to move into areas already populated by the species, resulting in a competition for space and resources. Conflict inevitably arises in this scenario between local community needs and the kangaroo population.

In response to this matter, Council has approached the relevant State and Federal Government Authorities to discuss kangaroo and land management approaches.

Pest Animals

Pest animals such as foxes, feral cats and wild/ roaming dogs can have major impacts upon native wildlife. Over predation of wildlife can drastically reduce populations and has the potential to lead to local extinctions. Competition from pest animals for food and shelter can also adversely affect native wildlife.

Weeds

The spread of weeds throughout the City of Whittlesea threatens to disrupt the ecosystem by lowering biodiversity, raising fuel loads and in some cases altering the form of the landscape. This threatens fauna, as changes to habitat can result in

the loss of food and shelter, resulting in possible local extinctions.

Soil Dumping and Soil Removal

Soil dumping and soil removal is threatening native fauna. In the City of Whittlesea, soil dumping and soil/rock removal has regularly been occurring on rocky knoll sites. This has a dramatic effect and can lead to the loss of the rocky knoll itself and the associated vegetation and wildlife habitat. Rocky knolls are part of the grasslands and grassy woodlands which are protected under the EPBC Act and their destruction is illegal. Soil dumping is also linked to the spread of noxious and environmental weeds, which can degrade wildlife habitat and reduce pasture productivity.

Inappropriate Stocking Rates

Inappropriate stocking rates can impact upon the natural environment. Over grazing can damage native pastures and leave areas of bare earth. Compaction and erosion also result from overgrazing and can lead to poor water quality in waterways. When stock are allowed to graze in areas of remnant vegetation, it can threaten the integrity of the remnant patch. Selective grazing, overgrazing, trampling and soil compaction can all affect the quality of the vegetation and potentially affect the fauna living in the remnant patch of vegetation. This process is of particular threat to the Golden Sun Moth which lives in native pastures and grasslands.

Fire

Fire has become a risk to the natural environment. Both the lack of fire and the presence of fire can threaten natural environmental values.



The lack of fire since European settlement has led to an increase in fire severity. Many plant species rely on fire to complete their natural cycles and can be impacted by the lack of fire. However when fires do occur, they tend to be of a very high intensity which not only threatens the survival of wildlife, but of vegetation that provides food and shelter.

The fires of February 2009 have seen great losses of habitat, yet vegetation is regenerating via protective seed coating, effective seed dispersal and epicormic growth. To date, recovery of wildlife has been slower.

The provision of fire breaks and fuel breaks within green wedge areas is regulated under the Victorian Planning Provisions (including the exemptions that are available under certain circumstances for such works to be undertaken without applying permit). These provisions may be subject to further review as part of the State Government's implementation of the recommendations and finding of the 2009 Victorian Bushfires Royal Commission.

6.3 What the Community is Saying

Consultation was undertaken with residents and community groups through a series of community forums and supplemented by workshops with government departments and agencies with an interest in the Whittlesea Green Wedge.

Despite the range of opinions expressed, a common thread can be drawn from the feedback received: **Whittlesea contains areas of significant habitat, in particular the critically endangered communities of River Red Gum Grassy Woodlands and**

part of the Plains Grasslands. These areas should not be developed, but actively managed for their conservation values.

What remains of our ecosystems is fragmented with few linkages between habitats. Any further urban development should avoid areas of significant habitats and pursue a linked corridor approach. Refer to the *Community Views Final Report* for a detailed summary of community responses.

6.4 Issues

The main areas to be addressed in order to protect and enhance the biodiversity of the Green Wedge are:

- Increased habitat fragmentation as a result of urbanisation and other land uses
- Increasing numbers of pest plants and pest animals on public and private land
- Limited value placed by the community on grasslands
- Concern about agricultural activities in grasslands
- Most River Red Gums on the plains are mature with little evidence of regeneration
- Degraded vegetation
- Fragmented planning policies and protection regarding biodiversity
- Fire regimes associated with the variety of ecosystems
- Concern over the unknown affects of global warming on biodiversity
- Concern regarding the increase in termites observed throughout the locality
- Increasing numbers of kangaroos within the green wedge.

This is not an exhaustive list, but rather an overview of the current key areas requiring action.

6.5 Planning Provisions

The State Planning Policy Framework of the Victorian Planning Provisions supports conservation of native flora and fauna through its objective to assist *the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals and control of pest plants and animals* (Whittlesea Planning Scheme, Clause 12.01-1).

Within the Local Planning Policy Framework, the Municipal Strategic Statement notes that *the City of Whittlesea contains many diverse and rich urban and environmental features which must be identified, preserved and enhanced in order to retain the intrinsic qualities and character of the municipality* (Whittlesea Planning Scheme, Clause 21.02-09). An area identified for immediate improvement is vegetation removal. Clause 21.06 focuses on environmental assets within the municipality.

A local policy on the protection of River Red Gums is included at Clause 22.10. Although focussed on urban areas, the policy recognises the intrinsic value of River Red Gums in establishing character and identity in both urban and rural areas.

Specific zones and overlays that are relevant to the protection and enhancement of the environmental values of the Whittlesea Green Wedge include:

- *Rural Conservation Zone* has the purpose of protecting and enhancing

the natural environment and natural processes, and conserving and enhancing natural resources and the biodiversity of the area. Most types of agriculture and the use and development of land for the construction of a dwelling require a planning permit.



- Environmental Significance Overlay has the purpose of ensuring development is compatible with identified environmental values. The areas of River Red Gum Grassy Woodland (Schedule 1) are specifically protected by this overlay (refer to Map 17 over the page). Subdivision and buildings and works within these areas require a planning permit.

Although located wholly within the urban areas of the City of Whittlesea, the Vegetation Protection Overlay is applied to two distinct locations of River Red Gum Grassy Woodland in the Plenty Valley and Epping North and requires a planning permit for vegetation removal (refer to Map 18 over the page).

A recent report by Parsons-Brinkerhoff (2009) assessed the effectiveness of planning controls in respect to vegetation protection. Whittlesea was ranked 'high' in its level of attention given to vegetation by planning provisions.

6.6 Planning Guidelines

Within the context of broader green wedge values, the following provides a guide for Council in its decision making regarding biodiversity:

- *Habitat corridors* should be planned for at the early stages of development and land use planning proposals.
- Every opportunity to *encourage River Red Gum regeneration* should be investigated.
- Regulation of pest plant and animals should be maintained to restore balance to our natural systems.
- *Planning policies* should be strengthened to protect the full diversity of habitats, fauna and flora.

6.7 Incentives and Programs

Council's Sustainability Planning Department releases a yearly Environmental Events Calendar. Activities are focussed on increasing community awareness and knowledge of sustainability issues including biodiversity. Activities vary from year to year and often include community planting days and native vegetation identification and propagation classes.

Council's annual Environmental Works Grants program is specifically geared towards improving management of native vegetation on private properties over two hectares in size within the Whittlesea Green Wedge.

Landholders may apply for up to \$1000 to assist them with works such as fencing of remnant vegetation to exclude stock, weed control and revegetation works.

The Victorian Government has a range of EcoMarket programs aimed at improving the management of native vegetation on rural land in private ownership. Refer to the 'Rural Land Stewardship' section for more information.

Other Victorian and Federal Government funding may be available for biodiversity works including:

- Caring for our Country - Funding may be available for activities that are undertaken which have an environmental benefit. Further details are available at www.nrm.gov.au/funding/future.html.
- Inclusion in the National Reserve System (NRS) - Funding is open to farmers and others who seek financial

support to either purchase land or establish protected areas on private land for inclusion in the NRS.

Port Phillip and Westernport Catchment Management Authority (PPWCMA) and Melbourne Water run a community grants program that supports the community and local government to improve the health of land, biodiversity and water resources in the region. Contact PPWCMA on www.ppwcm.vic.gov.au or Melbourne Water River Health Partnership Officers at www.melbournewater.com.au.

6.8 Actions

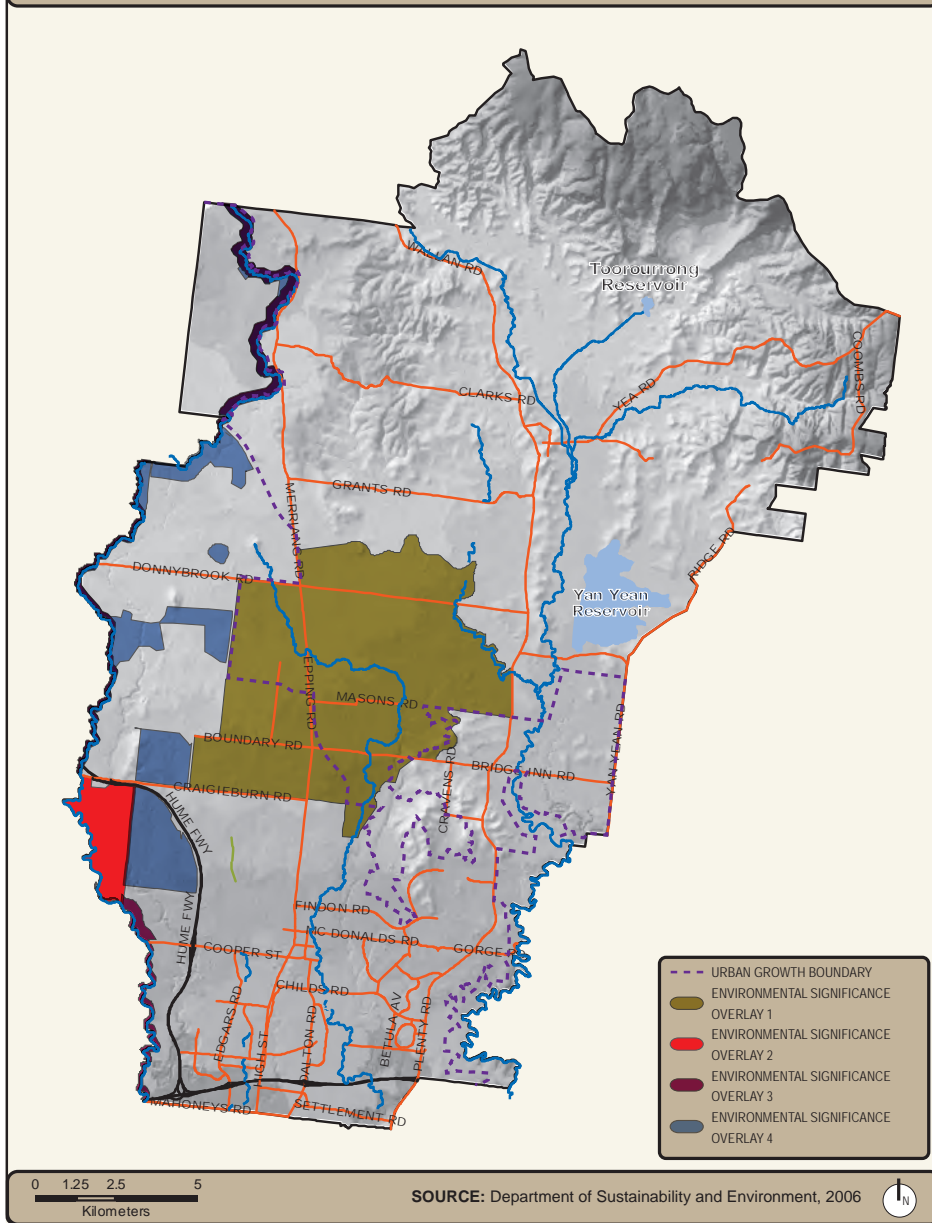
Refer to Part 3: Action Plan for the full range of actions proposed to sustain the Whittlesea Green Wedge into the future.

In summary, key actions proposed include:

- Distribute educational material on key biodiversity topics: ecological burns, significant ecosystems, fencing and grazing management, and pest plants and animals
- Explore opportunities for habitat corridors across rural and urban land
- Strengthen planning provisions relating to biodiversity protection and net gain offsets.



MAP 17 ENVIRONMENTAL SIGNIFICANCE OVERLAY 1, 2 & 3



MAP 18 VEGETATION PROTECTION OVERLAY SCHEDULE 1 AND 2

