Planned water features can attract frogs to control mosquite pulation and provid a night time choru hile also contributir uable habitat.



## What you can do

Think about the bigger picture. How does your Everyone can participate in broad-scale habitat property fit within the larger jigsaw puzzle? Your management. First, avoid removing vegetation land is one small but important patch of habitat unnecessarily. Second, increase the landscape value (see Action sheet 2 Habitat Management on of what is left on or near your own property by: Your Property).

Can your place be part of a large ecological patch? Are you a critical part of a wildlife corridor, or could you become one? What help or advice do you need? Might you be able to cooperate with neighbours to achieve the necessary continuity? Could you include a planned water feature?

# What Council will do

Council, as the responsible authority for the planning scheme, has an important role in habitat preservation. Under the scheme it is critical to avoid or limit the removal of significant vegetation. Council also actively contributes to broad management in ways that • Working cooperatively with DSE to encourage enhance biodiversity by:

- Protecting vegetation in bushland reserves, roadside reserves and along waterways.
- Applying the planning scheme to avoid or minimise habitat loss.
- Planting in areas to increase size and connectivity of existing habitat.
- Increasing the quality of remnant vegetation through restoration works.
- Influencing flora and fauna management outside Council control. For example, Council provides support and aims to influence state government on a number of issues relevant to broad-scale habitat management including: native forestry, water management, vegetation management and fire-related issues.

- Increasing the size or your vegetation patch by planting additional native trees nearby.
- Increasing the quality of your patch by controlling weeds, excluding stock and carrying out supplementary planting as necessary.
- Increasing the connectivity between your patch and others by planting in a way that links to other patches.
- Supporting Council efforts by encouraging others in the community.
- Joining interest groups.
- Ensure that best practice vehicle hygiene procedures are carried out in zones with potential Phytophtora (Root rot fungus) or Myrtle Rust to minimise the risk of spread.
- greater research on the impacts of timber harvesting operations and the influence these have on biodiversity; increase the protection of habitat trees (live and dead) from being logged and any secondary impacts from regeneration burns; review the sustainable yields of timber harvesting to ensure best practice planning is used for ecologically sustainable timber harvesting.
- Encouraging the use of timber harvesting practices that achieve retention and long term protection of habitat elements for native fauna species (e.g. retention of hollow bearing trees as shelter for Leadbeater's Possum, and retention of understorey trees for food and movement for native fauna).



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## Related materials

### Guidelines

Yarra Ranges Council Flora & Fauna Plan 2012: Sustaining biodiversity for current and future generations Yarra Ranges Council Environment Departmen

### Websites

- General websites
- www.yarraranges.vic.gov.au
- www.dse.vic.gov.au
- www.dpi.vic.gov.au

### • Native plants and vegetation communities

- www.yarraranges.vic.gov.au/Residents/Trees\_Vegetation/Yarra\_ Ranges\_Plant\_Directory/Yarra\_Ranges\_Local\_Plant\_Directory
- www.yarraranges.vic.gov.au/eServices/Online\_Maps
- www.dpi.vic.gov.au/agriculture/archive/landscapesystems/projects

#### Scientific Publications

- Corridor Ecology: The science and Practice of Linking Landscapes for Biodiversity Conservation 2006 Hilty J.A, Lidicker Jr.W.Z and Merenlender A.M Island PressWashington DC
- Practical Conservation Biology 2005 Lindenmayer, D & Burgman, M CSIRO Publishing, Collingwood Vic

#### Photo acknowledgements: Esther Beaton





# Action Sheet Broad-scale habitat management



12345678Broad-scale<br/>HabitatProperty<br/>HabitatUrban<br/>BackyardsWaterways<br/>& WetlandsFireThreatened<br/>SpeciesWeedsPest<br/>Animals



# **Broad-scale habitat** management

Habitat provides what plants and animals need to live: food, shelter and water. This Action sheet focuses on habitat management at the scale of the wider landscape. Here human changes to the landscape are the main issue. All vegetation within a wider landscape affects the health of the environment for native plants and animals. By increasing the connectivity of habitat across our landscape and increasing the size of existing patches of remnant vegetation we can significantly increase the quality of their contribution to the ecosystem.

## Ecological principle: ecology of modified landscapes

Broad-scale habitat management looks at the big picture, taking the wider environment into account. As landscapes are modified the natural habitat available is diminished to the point that native animals can no longer find food, water, shelter, or a mate. Action sheet 2 relates to individual landholdings, each one part of a **patch of habitat** - one small piece in this larger jigsaw puzzle. Those pieces link together to form the larger landscape and the bioregion that includes Yarra Ranges plants and animals.

Nildlife corridors are needed for populations of Sugar Gliders Sugar Gliders can only glide u to 50 metres, so larger distance between trees will stop the ovement for food or a mate.



The Yarra Ranges Council's primary focus is to retain and enhance existing vegetation across the municipality. However, despite efforts, we are still losing our native vegetation, bit by bit, through direct and indirect action. Significant revegetation and remnant restoration efforts are required to improve native vegetation, achieve healthy biodiversity and provide habitat for native animals.

Active management to improve habitat involves encouraging natural regeneration of plants, revegetating patches of indigenous species (either to fill the gaps where vegetation has been disturbed or degraded, or to replace it where it has been lost) and creating suitable habitat linkages with new plantings.



## Goals for habitat management

Goal 1 PROTECT Goal 2 ENHANCE Goal 3 RESTORE

At the scale of landscape values, the wider view is the focus: patch size, shapes and location, patch diversity, and connectivity between patches become the broader concern. It is critical to avoid or limit the removal of significant vegetation.

The first three goals (protect, enhance, restore) shape our direct response to vegetation for habitat: protect what is there, improve it, and restore as much of what has been lost as possible. Doing this improves the living conditions of the native animals we are trying to protect. At this broad scale of the wider landscape we can clearly see the way all seven goals work together to form a healthy cycle that benefits animals by encouraging plant life: protect, enhance, restore, net gain, knowledge, stewardship, influence.

## Remnant vegetation

Within the Yarra Ranges, areas of remnant vegetation • Larger remnant vegetation patches are better than are commonly surrounded by highly modified land, such as urban areas or cropping or grazing lands.

Patches may consist of one or more habitat zones. Ecological management principles pay attention to the way the pieces link together in the larger landscape, focusing on patch size, patch shape, the distance between remnants of native vegetation, and the availability of wildlife corridors.

- smaller ones.
- Circular or square patches are more resilient to impacts of edge effects than narrow linear patches.
- The smaller the distance between remnant vegetation patches the greater opportunity for all fauna species and populations to access available habitat.
- High disturbance activities adjacent to remnant vegetation will impact upon the health and function of the remnant.

All patches of native egetation, no matte now small, have value and are regarded as being of local gnificance.

# Wildlife corridors

Fragmentation is one of the main contributors to continuing biodiversity decline across the landscape. Wildlife corridors help maintain ecological processes by providing landscape connections between larger areas of habitat to enable migration, colonisation and breeding of flora and fauna.

Protection of wildlife corridors is critical to provide landscape connections between larger patches and needs to be specifically addressed.

# Riparian (freshwater) environments

Waterways and wetlands are very significant ecosystems that need a strong level of protection. They provide critical habitats for aquatic flora and fauna as well as supplying essential water to landdwelling animals.

Waterway corridors for flora and fauna work in the same way as corridors between other plant and animal communities.

> Edge effects: The size and shape of remna regetation affect the amount of core are that remains free from disturbance at the edges (From LFW Note 0023).

continuous area of nativ egetation which includes regetation across one or more land tenures is called a patch.



# Native vegetation patch size and quality

As a result of agricultural practices and urban development extensive vegetation clearance has occurred across the municipality. Remnant vegetation on private land is usually fragmented. All we have left are patches, or linear strips along roadsides or waterways. The quality of these remnants is also commonly degraded. Larger patches are often healthier and more resilient – so they have higher conservation significance than small patches. But smaller patches can also be of higher conservation significance because they may provide connectivity and corridors across the landscape.

Even though remnant patches on your property may be fragmented or degraded they are still critically important, as they contribute to the complex habitat and ecosystem values within the landscape.

Each remaining patch of vegetation is distinctive and needs to be considered individually. Indigenous vegetation patches can be assessed for quality using the Vegetation Quality Assessment method approved by the Department of Sustainability and Environment (DSE). This is critically important when vegetation removal requests are being assessed by Council.