

BIODIVERSITY

The purpose of this VPP Planning Practice Note is to:

- explain the importance of biodiversity
- identify the role of planning schemes in achieving biodiversity objectives
- outline what planning authorities can do to establish a local biodiversity framework in their planning schemes
- provide examples of planning tools which can be used in planning schemes.

Biodiversity conservation and management is an integral part of the Victorian Government’s environmental policies and recognised as an essential component of responsible environmental and natural resource management.

Biodiversity means *the variety of all life forms – the different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they form part.*¹

Conserving biodiversity is fundamental to our quality of life and our economic wellbeing, both now and in the future.

Increasingly, the services and benefits provided to urban and rural communities by these natural assets are being recognised. These ‘ecosystem services’ include the provision of clean air and water, nutrient recycling in soils, control of pests, mitigation of climate change, production of goods such as firewood and timber, filtration and erosion control and waste absorption and breakdown. These benefits can only be provided by landscapes which contain sufficiently intact biodiversity assets and healthy ecosystems.

It is important to recognise that managing biodiversity on private land is now our greatest conservation challenge and opportunity. Approximately 60 per cent of remnant vegetation on private land is of a threatened ecological vegetation class (EVC). Dedicated reserves, such as national parks, do not capture a representative and adequate array of ecosystems. Reserves alone cannot adequately protect biodiversity from further decline or loss.

The ongoing fragmentation of ecosystems, regardless of their significance, undermines the long-term viability of biodiversity in the landscape. Changing patterns of land use and development create both opportunities for and threats to biodiversity. The planning system can help manage these changes and improve their outcomes.



Showy Daisy Bush – Mallee region, NW Victoria

The role of the planning system

The planning system is one means by which Commonwealth, State and local biodiversity objectives can be implemented. Effective planning policies and controls in planning schemes are important mechanisms for achieving biodiversity objectives, especially on private land.

The main role of the planning system in protecting and enhancing biodiversity is to set in place a comprehensive framework of policy and controls to guide decision making about new use and development through planning schemes. A national and State policy framework for biodiversity is established and set out in the State Planning Policy Framework (SPPF) of all planning schemes. This Practice Note provides guidance in developing a local planning policy framework that responds to these broader national and State policy objectives.

² National Strategy for the Conservation of Australia’s Biological Diversity, Commonwealth of Australia, 1996.

Other mechanisms

While this Practice Note focuses on planning schemes as a mechanism for achieving biodiversity objectives, land-use planning is one of a suite of complementary tools and mechanisms available to local government to fulfil its responsibilities in relation to biodiversity.

The role of the planning system is limited to new use and development. Many activities adversely affecting biodiversity occur as part of land management practices associated with existing use and development over which the planning system has no control. Likewise, many beneficial actions occur outside the planning framework. Local government can influence outcomes beneficial to biodiversity through incentives, such as rate rebates for

participation in environmental management or revegetation programs, through its own practices as a land manager for roadsides and other reserves, through working with other agencies and by generally encouraging good land management practices.

Responsibility for implementing biodiversity objectives rests with all levels of government, organisations, business and individuals. It is a community responsibility. Government, catchment management authorities, Landcare groups, research organisations, landowners and public land managers also undertake a wide range of programs and actions to protect and enhance biodiversity.

What council can do to establish biodiversity objectives in its planning scheme

1. **Find out about the broader policy framework.** This Practice Note provides a summary of the biodiversity policy framework which all levels of government, organisations, business and individuals have a responsibility to implement. Further reading is recommended.
2. **Find out what information is available** for your municipality, keeping in mind that information needs to be sufficiently robust to justify using it for planning purposes. Any mapped information should be at an appropriate scale and form for use in the planning scheme. This Practice Note provides advice on what data and information is available and where you can find it.
3. **Involve the community.** The community will have valuable information to contribute, especially in relation to what it values about local biodiversity and detailed knowledge of local assets.
4. **Interpret the information – how can it be used for planning purposes?** This Practice Note is intended to assist in understanding how the planning scheme can be used to achieve biodiversity objectives through the protection and enhancement of biodiversity assets at the local level. Discuss the information you have collected with your local Department of Natural Resources and Environment (DNRE) officer and your Department of Infrastructure (DOI) regional office to determine how it can best be used in the planning scheme. Identify information ‘gaps’ and determine how these may be addressed. Discuss broader strategic objectives for biodiversity and the practical application of the information in planning schemes, such as delineating overlay areas.
5. **Choose the appropriate planning scheme tools** being mindful of what protection the existing planning scheme provides (especially through the use of zones and the Statewide native vegetation controls). Again, the Practice Note provides guidance on this. Prepare the local provisions (Municipal Strategic Statement (MSS), local planning policies, and schedules to overlays) and ensure that they provide an adequate level of protection for the particular biodiversity asset. This should be done in consultation with DNRE and DOI. Appendixes 1 and 2 contain an example of a schedule to an Environmental Significance Overlay and a local planning policy respectively. Clear, precise and well considered local provisions will enhance the prospect of making appropriate decisions about individual planning permit applications and applying workable planning permit conditions. The Practice Note concludes with some general advice on planning permit conditions.
6. **Establish a monitoring system, performance targets and indicators** for measuring the effectiveness of the planning scheme tools in achieving biodiversity objectives.
7. **Prepare and exhibit a planning scheme amendment** to introduce the new local provisions into the planning scheme. This is the final step in the process. For more information on the planning scheme amendment process, refer to *Using Victoria’s Planning System*, DOI, November, 2001.



Glossidia major, Little Desert

Biodiversity framework and objectives

Strategic framework

Recognition of the significance of biodiversity and the establishment of strategies to manage, protect and improve biodiversity assets stems from the highest level.

In 1992, all three levels of Australian government – Commonwealth, State and local government – signed the *Intergovernmental Agreement on the Environment*. The Agreement commits governments to integrating economic and environmental considerations into decision-making to achieve ecologically sustainable development. Later the same year, Australia committed itself to a *National Strategy for Ecologically Sustainable Development*. The protection of biological diversity is one of three core objectives of the National Strategy, and a cornerstone of the Intergovernmental Agreement.

In 1996 the governments of all Australian States and Territories agreed on the *National Strategy for the Conservation of Australia's Biological Diversity*, the goal of which is to protect biological diversity and maintain ecological processes and systems.

Victoria's strategy on biodiversity – *Victoria's Biodiversity (Sustaining Our Living Wealth, Our Living Wealth and Directions in Management)* – was published in 1997. This fulfilled the requirement under the *Flora and Fauna Guarantee Act 1988* to prepare a strategy that includes proposals for guaranteeing the survival, abundance and development in the wild of all taxa and communities of flora and fauna.

Restoring our Catchments: Victoria's Draft Native Vegetation Management Framework (2000) and the *Victorian Coastal Strategy* (2002) have been developed to implement management approaches to achieve biodiversity objectives under these various strategies. The draft Native Vegetation Management Framework includes a set of tools for estimating general vegetation/habitat quality on a consistent Statewide basis and a proposed accounting system to implement the notion of Net Gain.

Statutory framework

The legislative framework established to protect the environment and biodiversity includes the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, and the Victorian *Environment Protection Act 1970*, *National Parks Act 1975*, *Flora and Fauna Guarantee Act 1988*, *Catchment and Land Protection Act 1994*, *Coastal Management Act 1995* and, of course, the *Planning and Environment Act 1987*.

In planning schemes, the SPPF, in particular Clauses 13 and 15, sets out general principles of land-use and development planning, including reference to related legislation, and a range of objectives and general implementation provisions dealing with the environment.

Establishing the local planning policy framework

Local councils are encouraged to use the data and information available about biodiversity to develop their own local strategies for native vegetation management and biodiversity protection that can then be articulated in their MSS. Sources of biodiversity information are outlined in Appendix 3. A biodiversity strategy for a municipality can provide:

- an overview of the biodiversity assets within a municipality
- a framework for actions to protect and enhance local biodiversity assets
- a process for local action, community participation and ownership.

The draft regional vegetation plans being prepared under Victoria's Draft Native Vegetation Management Framework will pave the way for effectively targeted local action that will achieve the best integration of the objectives for native vegetation retention and revegetation.² Clause 15.09-2 of the SPPF requires local councils to give regard to approved regional vegetation plans when amending planning schemes and reviewing their MSS.

Where a council is unable to develop a local biodiversity strategy, it is encouraged to use the available information to identify the value and significance of known biodiversity assets and threatening processes in the municipality, such as those identified in DNRE's Bioregional Plans.

It is important that planning schemes should be used not only to protect biodiversity assets but also to enhance them. The retention and management of existing native vegetation is the primary way to conserve the natural biodiversity across the landscape. Enhancement opportunities support the principle of Net Gain in native vegetation and other objectives in Victoria's Biodiversity Strategy. Similarly, biodiversity enhancement is supported throughout the SPPF and other parts of the planning scheme which deal with the environment.

² *Victoria's Draft Native Vegetation Management Framework (DNRE 2000) p.23.*

Municipal Strategic Statement

In implementing environmental and biodiversity objectives in the SPPF, planning schemes should include local objectives for biodiversity in their MSS.

Biodiversity objectives fall generally within the following categories:

- protecting and enhancing native vegetation and habitat
- managing threats to species and ecological communities
- maintaining and improving the quality and the health of watercourses, wetlands, terrestrial, coastal and marine environments
- maintaining and improving the quality of soils and their structure.

In developing local actions to protect biodiversity, councils should focus on how to deal with each of these categories. The planning system can influence them by:

- preventing the removal of native vegetation without a planning permit
- in identified locations, requiring a planning permit for development which might adversely affect water quality, the health of watercourses, wetlands or the marine environment, vegetation, habitat, soil structure or stability
- imposing appropriate conditions on planning permits for use or development that will mitigate, protect or enhance biodiversity assets, and
- monitoring the effectiveness of planning scheme controls in protecting and enhancing biodiversity.

As a guide, the biodiversity component of the MSS could:

- include a description of the significant threats to local biodiversity from activities that occur in the municipality or bioregion
- identify biodiversity assets and locations where additional policies or controls over the use and development of land may be warranted to reflect their significance
- indicate the role of biodiversity in maintaining ecosystem services
- recognise and apply the precautionary principle
- identify strategies to protect and enhance biodiversity.

For example:

- to retain native vegetation, including remnant vegetation, dead standing trees and native grasslands
- to apply the Net Gain approach to all planning decisions
- to ensure that riparian land is used and managed to protect and rehabilitate its biodiversity value
- to implement the restoration of riparian and wildlife corridors
- describe the mechanisms for implementing the MSS objectives and strategies.

Native vegetation management

Clause 52.17 (Native vegetation) provides a key mechanism for protection of biodiversity in Victoria. Clause 52.17 is part of all planning schemes and requires a permit to be obtained to clear any native vegetation on contiguous land in one ownership of 0.4 hectare or greater in area (subject to certain exemptions).

The native vegetation provisions (Clause 52.17) and decision guidelines (Clause 65) are the minimum 'baseline conservation provisions' for limiting the loss of biodiversity on a Statewide basis. They should not be regarded as adequate and effective in meeting all biodiversity conservation objectives and more specific provisions may need to be applied.



Black Faced Cormorant – Port Phillip Bay



Blue Tongue Lizard



Milkmaids



Black Box Woodland – Murray River Floodplain, Mildura

Choosing a planning scheme tool

Zones and overlays

The best combination of zones and overlays to achieve biodiversity objectives depends on:

- the intended outcomes of the land-use strategy for biodiversity
- the predominant (or preferred) land use
- the land tenure
- the level of significance of biodiversity assets
- the spatial characteristics of biodiversity assets
- whether the baseline conservation provisions of Clauses 52.17 and 65 need to be supplemented with additional planning controls.

Situations where the baseline conservation provisions may need to be supplemented by an additional method include:

sites of biological significance	Environmental Significance Overlay
subdivision (leading to subsequent loss or degradation of native vegetation)	Environmental Significance Overlay
the presence of significant relatively unmodified biodiversity assets	Environmental Significance Overlay
large relatively intact natural area where land use under the existing zone provisions may result in the loss of important biodiversity qualities	Environmental Rural Zone
hollows in mature dead trees dispersed on private land which provide important nesting sites for significant species	Vegetation Protection Overlay
scattered living food trees with an exotic understorey that does not conform to the 'native vegetation' definition in planning schemes	Vegetation Protection Overlay
threatened vegetation classes that are highly fragmented and occur on private land, for example, grasslands	Environmental Significance Overlay
unknown locations of biodiversity assets or insufficient information on biodiversity assets to prepare an overlay	Local planning policy
highly modified areas, such as salt works and treatment plants, whose features are relied on by significant migratory and nomadic species	Local planning policy
threatened species habitat that is highly modified (and therefore does not qualify as 'native vegetation'), but retains structural or other components that allow species to survive	Vegetation Protection Overlay, Environmental Significance Overlay
areas of likely biodiversity significance	Environmental Significance Overlay
riparian and coastal habitats	Environmental Significance Overlay, Local planning policy

Zones

In rural areas, the Rural Zone (RUZ), Environmental Rural Zone (ERZ) and the Rural Living Zone (RLZ) all provide for the protection and enhancement of biodiversity in the purpose of each zone. When combined with the baseline conservation provisions, the RUZ and RLZ may provide an adequate level of protection for some biodiversity assets.

Where biodiversity significance is high and the environment is in a predominantly natural state, the ERZ is likely to be the most suitable zone. One of the features of the ERZ that distinguishes it from the RUZ is its ability to control agricultural land uses and timber production that would not normally need a permit in the RUZ. However, the ERZ is not likely to be suitable where widely dispersed or fragmented vegetation is to be protected. Within areas where high biodiversity values are linear or fragmented and the surrounding environment has been substantially altered (for example, broadacre agricultural areas with wildlife corridors), the other rural zones may be more appropriate, supplemented with overlays.

If the land is publicly owned, the Public Conservation and Resource Zone is the most appropriate zone for protecting

biodiversity values, however, depending on the predominant land-use activity, other public land zones may also be appropriate coupled with an overlay. As with private land, the predominant land-use activity and strategic land-use objectives need to be weighed up to determine the best combination of controls.

In predominantly urban environments, zoning is not the best way to achieve biodiversity objectives for isolated locations with biodiversity values, such as waterways, open space areas or recreation uses such as golf courses. It is preferable to use a zone appropriate for the preferred strategic use of the land and to protect biodiversity assets by using an overlay. In outer urban areas, biodiversity objectives may influence the zoning pattern. For example, on the urban fringe, zoning can be used to control the expansion of urban land uses into areas with biodiversity values. In areas designated for urban development, the design of new subdivisions should be influenced by biodiversity objectives. Tools such as the Incorporated Plan Overlay or Development Plan Overlay may be used for this purpose.

Overlays

Duplication of controls should be avoided. In deciding whether to apply an overlay, review whether the biodiversity objectives can be achieved satisfactorily through the Local Planning Policy Framework (LPPF), the choice of zones and the baseline conservation provisions. If the purpose and decision guidelines in the zone, Clause 65.01 and the native vegetation provisions in Clause 52.17 provide adequate control, the application of overlays will not be necessary.

The rationale for applying additional planning controls needs to be informed by knowledge of the local biodiversity assets, values and threats.

If the protection or enhancement of a biodiversity asset requires the use of an overlay, the appropriate overlays are the ESO and the VPO. Both provide an additional level of vegetation control and allow for specific environmental outcomes to be articulated through the schedules. The ESO contains additional controls over the construction of buildings, works, fence construction and subdivision. The VPO should be used in preference to the ESO only where impacts on biodiversity caused by the clearing of vegetation are the sole concern.

The flood overlays, in particular the Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO) indirectly protect biodiversity values due to their restrictive nature. The Significant Landscape Overlay (SLO) may also have indirect biodiversity benefits; however its principal aim is the maintenance of aesthetic landscape values rather than particular habitat qualities. Other overlays such as the Erosion Management Overlay (EMO) or the Salinity Management Overlay (SMO) contain vegetation protection provisions but these are directed at outcomes to protect soil quality. While soil quality is indirectly linked to biodiversity, these overlays should be used for their specific purpose rather than identifying native vegetation for its habitat or botanical significance.

Examples of ways in which overlays can be used to protect biodiversity assets include:

- applying the ESO to identified sites of biological significance
- applying the VPO or ESO to protect native vegetation which is significant, scattered or not covered by Clause 52.17
- applying the ESO to protect other environmental assets important to the conservation of biodiversity, such as riparian land and identify areas of biodiversity significance
- giving effect to decision guidelines in zones, overlays and other provisions requiring the protection of biodiversity.

The ways in which overlays can be used to enhance biodiversity assets include:

- applying the ESO to land identified for the establishment of vegetation corridors or revegetation.

Schedules

Through the schedules to the ERZ and overlays, the planning authority can specify particular environmental objectives and add new decision guidelines that ensure proper weight is given to biodiversity considerations. Well-prepared schedules can also assist in justifying the application of planning permit conditions or the refusal of a planning permit on biodiversity grounds.

Schedules to overlays can be prepared to protect a variety of biodiversity assets. Schedules can be used to protect well-defined and delineated sites of biological significance, for example, those drawn from the DNRE BioSites database or other reports using robust methodologies. Incorporated and reference documents provide good sources of information for drafting schedules.

The content of schedules will vary according to the nature and attributes of the site, and appropriate decision making criteria will be needed. Several schedules may be required. Where there are many sites of significance within a municipality it may be useful to tabulate the characteristics of each site as a table to the schedule as illustrated in Appendix 1.

Alternatively, schedules can be used to protect essential habitat elements for threatened species where these are scattered through a landscape. Mobile species (such as birds) often use small, dispersed areas of remnant habitat on a seasonal or erratic basis. It is appropriate to use an overlay to cover a broad area where patches of suitable habitat are believed to occur, and to describe those habitat components important for that species. For schedules like this, the description of significance will be highly specific. The application requirements and decision criteria will need to be customised for each case.

Appendix 1 provides an example of an ESO schedule that could be applied to either a threatened species or a significant habitat as required.

Local planning policies

A local planning policy is a tool for day-to-day decision-making in relation to a specific discretion in a zone, overlay or other relevant provision in the scheme (such as the native vegetation provisions). It should help applicants and the community to understand how a proposal will be considered and what will influence decision making. If the planning authority is satisfied that the SPPF, the MSS and/or the decision guidelines in the zone or overlay provide sufficient direction for the exercise of discretion, there is no need to include a local planning policy.

A local planning policy should be practical to implement and provide clear guidance about on-ground outcomes that will be expected as a result of exercising a specific discretion in the planning scheme. Local planning policies can be used to protect or enhance biodiversity assets.

For example:

- a council may have a local planning policy that requires a demonstrated contribution to Net Gain in native vegetation or improvements to habitat or water quality in association with every planning permit application having a negative impact on habitat values.³ As a means of protecting biodiversity assets, this would:
 - achieve incremental gains in native vegetation
 - establish a culture of considering net gain implications within the municipality
 - affirm the importance of biodiversity at a local level
 - focus the attention of applicants on the fact that they have a positive obligation to protect and enhance biodiversity
- a council may have a local planning policy that either supplements an overlay or provides specific policy guidance for discretions under a zone or the native vegetation provisions for biodiversity objectives identified in the MSS. This type of policy may be appropriate for use in municipalities where the application of overlays in a planning scheme is limited or where biodiversity information is insufficient for the preparation of overlays. Appendix 2 contains an example local planning policy covering a range of biodiversity issues identified in Gumnut Shire's MSS
- most rural planning schemes apply an ESO over watercourses. As an alternative, a council may have a local planning policy that deals with a specific issue such as the management of riparian land as a means of enhancing biodiversity assets. It could set out a range of measures that would be required to be implemented (as appropriate) whenever a planning permit is required as a result of the overlay. These could include encouraging the retention of riparian vegetation, stock management and revegetation of degraded areas.

When drafting a local planning policy, incorporated and reference documents may provide useful sources of information.

Biodiversity information

There is a range of data and information available on biodiversity assets, potentially threatening processes and management requirements of assets available from many sources and in a number of formats. The principal division in this information is between mapped data (location of assets and values of areas for biodiversity) and asset specific data (relating to the ecological requirements, management requirements and threats to species, communities and ecosystems). Not all biodiversity assets have been evaluated or mapped. The absence of information on biodiversity value does not infer lack of value at a site but that it is of an unknown value.

Appendix 3 sets out some useful sources of biodiversity information in Victoria.

Within the planning system, information and data can be used to:

- prepare action plans, policies and strategies
- identify specific biodiversity assets in planning schemes as the basis for applying zones or overlays
- understand the significance of particular biodiversity assets potentially affected by a planning permit application to enable appropriate decisions
- frame appropriate conditions to include in planning permits.

Local councils are encouraged to access this information to assist in defining their conservation objectives and developing strategies to implement these objectives through their planning schemes. Assistance is available from DNRE in understanding and using material about biodiversity.

Planning permit conditions

Should a council decide to approve a permit application, permit conditions to protect or enhance biodiversity assets can include:

- physical constraints (such as specification of a works area, construction methods and timing) which minimise or avoid damage to surrounding areas
- protection requirements for significant areas such as fencing or legal protection
- measures aimed at improving remaining biodiversity assets (such as weed and animal control)
- the planting or regeneration of native vegetation to replace lost native vegetation based on Net Gain principles, to improve riparian land or to establish or enhance habitat and habitat corridors.

The planning system is an effective means of achieving biodiversity objectives, particularly if the planning scheme tools are employed using available resources and information. The attached appendixes provide guidance on developing specific planning scheme tools and best practice approaches for the collection and analysis of biodiversity information.

³ *Clearly, what is appropriate in the nature of such contribution would need to be considered in light of the nature of the application. Ordinary principles of planning law require a nexus between a condition and the use or development being approved.*

APPENDIX 1- Example schedule to the Environmental Significance Overlay

This example demonstrates two options for developing a schedule. Option 1 is a schedule for known sites of biological significance. Option 2 is a schedule developed to protect a specific threatened species.

GUMNUT PLANNING SCHEME

LOCAL
PROVISION

SCHEDULE NUMBER TO THE ENVIRONMENTAL SIGNIFICANCE OVERLAY

Shown on the planning scheme map as **ESO number**.

NAME OF ENVIRONMENTAL SIGNIFICANCE AREA (OR THREATENED SPECIES)

1.0 Statement of environmental significance

[Option 1 (known sites of biological significance)]

The site(s) covered by this schedule [substitute names of individual areas as appropriate] have been identified as sites of biological significance in [the Department of Natural Resources and Environment Biosites Database and/or other documents identifying sites of significance]. Their protection and appropriate management is of particular importance for the maintenance of Victoria's biodiversity. The significant assets of each site are listed in Table 1 below [where the overlay covers few sites, a table is not necessary].

Table 1 to Schedule #

Map	Site name Biosites number	Significance level	Known assets contributing to biological significance of site	Threats and management requirements and management practices to be encouraged
Identifier shown on planning scheme map Map no. same as above	Biosites database number and name of site or identifier linking to other study of significance	National State Regional Local	Names of threatened species recorded (common and scientific names) Names of EVC or communities Other reasons for significance Non-native vegetation and other habitat important to threatened species Reference to recovery plans and action statements	Potentially threatening processes and development activities that may be of concern at the site (may be identified in Biosites database) Management practices that would result in the enhancement of biodiversity conservation values at the site (for example, weed control, exclusion of grazing). This information may be found in action statements, recovery plans, management plans or the Biosites database.

[Option 2 (for a specific threatened species, for example, regent honeyeater)]

[Statement should include details of the status of the species to be protected, the nature of their habitat in the area (that is, level of clearance, habitat characteristics such as small remnant patches of specific trees, key vegetation components, food resources), and any additional values of this habitat. The statement should provide clarity on the types of elements of the landscape or habitat that are important in the retention of this species as a guide to decision-making. This information may be obtained from recovery plan action statements and more general literature on the species.]

GUMNUT PLANNING SCHEME

LOCAL
PROVISION

The area covered by this overlay provides important habitat for the nationally endangered regent honeyeater (*Zanthomiza phrygia*). The habitat of this species has been extensively cleared and degraded. Remaining patches of Mugga ironbark (*Eucalyptus sideroxylon*), white box (*Eucalyptus albens*), yellow box (*Eucalyptus melliodora*) and Blakely's red gum (*Eucalyptus blakeleyi*) on private land represent a key feeding resource of this species. Usage of particular patches of feeding habitat varies from year to year, according to the amount of flowering that takes place, and the maturity of trees at the site. It is important to retain immature trees that may provide future feeding sites for the regent honeyeater as well as existing known feeding locations.

The area also provides habitat for the squirrel glider (*Petaurus norfolcensis*), brush-tailed phascogale (*Phascogale tapoatafa*), grey-crowned babbler (*Pomatostomus temporalis*) and bush stone curlew (*Burhinus magnirostris*), which are all listed as threatened species under the *Flora and Fauna Guarantee Act 1998*. Remnant vegetation here provides an important regional habitat link between the Warby Ranges and the Great Dividing Range.

2.0 Environmental objective to be achieved

[Option 1 (known site)]

- To protect and to maintain or improve the viability of habitats, ecological communities, flora and fauna, and genetic diversity in areas identified as being of [regional/State/national] significance in [Biosites database or other publications]. These sites include both the biological (living and dead) and physical components of the habitat.
- To ensure that any use, development or management of land within and adjacent to areas of biological significance are compatible with their long-term maintenance and conservation, and will not have detrimental impacts on biodiversity values.
- To maintain the integrity of the site(s) through protection from [list potentially threatening processes identified in 'Biosites' or other data sources (for example, reduction and fragmentation of habitat, alteration to the natural temperature regimes of rivers and streams, degradation of native riparian vegetation increase in sediment input into rivers and streams, invasion by environmental weeds, pest plants or pest animals (including domestic animals such as cats and dogs), loss of hollow-bearing trees)]
- To recognise the important contributions that sites of biological significance make to the overall character and identity of the area.

[Option 2 (specific threatened species, for example, regent honeyeater)]

[Include a brief statement of the aim of the schedule. If possible include recovery/action statement goals]

- To protect remnant habitat for the regent honeyeater and a suite of other threatened species.
- To retain and enhance all stands of native open forest or woodland that contain any of the 'key' eucalypt species *Eucalyptus sideroxylon* (Mugga ironbark), *E. albens* (white box), *E. melliodora* (yellow box), and *E. leucoxyton* (yellow gum). This should include remnant stands on agricultural land, in streamside and roadside reserves, travelling stock routes, State forest and conservation reserves. [from action statement]
- To manage all such sites to retain the number of the key eucalypt species and to increase the number of mature trees of these species. [from action statement]
- To encourage regeneration of key tree species remnants on private and public land in proximity to existing remnants utilised by regent honeyeaters.

3.0 Permit requirement

A permit is not required:

- ⦿ To undertake development or works which are carried out as part of an approved management plan specifically to enhance habitat values for the asset listed in Table 1 [or if using Option 2 state the threatened species].
- ⦿ To remove vegetation not native to Victoria, except where the species forms an important part of the habitat for species listed in Table 1.
- ⦿ To remove, destroy or lop any vegetation except [list native species that a threatened species relies on specifically in this area for example for Regent Honeyeater – identify Mugga ironbark, (*E. sideroxylon*), etc.].
- ⦿ For activities conducted on public land by or on behalf of the Department of Natural Resources and Environment (DNRE) under the relevant provisions of the *National Parks Act 1975*, the *Reference Areas Act 1978*, the *Wildlife Act 1975*, the *Fisheries Act 1995* or the *Forest Act 1958*.

4.0 Application requirements

An application must be accompanied by:

A report including:

- ⦿ Identification of any native vegetation or other habitat components to be removed, destroyed, damaged or otherwise disturbed.
- ⦿ The reasons for any removal, destruction or lopping of any native vegetation or habitat components.
- ⦿ How the proposal is consistent with the SPPF, the LPPF and the zone and overlay provisions.
- ⦿ How the proposal responds to the purpose and decision guidelines of the native vegetation provisions.
- ⦿ The likely impact on the protection and conservation of biodiversity.
- ⦿ The likely impact on stream channel stability and on flooding characteristics.
- ⦿ The type, significance and fauna values of the vegetation or other habitat components to be removed (to be prepared by an appropriately qualified ecologist/biologist), with particular reference to, but not restricted to the known assets contributing to the biological significance of the site listed in Table 1 to this schedule [for Option 1].
- ⦿ The measures to be taken to ensure that any impacts on native vegetation, flora and fauna are compensated for by rehabilitation or revegetation to meet the requirement of no net loss in quantity or quality of native vegetation.
- ⦿ Other areas on the land that have been cleared within the previous 10 years whether or not this clearing required a permit.

Scaled and dimensional plans showing, where relevant:

- ⦿ Property boundaries.
- ⦿ Adjacent properties.
- ⦿ Nearest public roads and intersection.
- ⦿ Existing development on the site.
- ⦿ Existing fencing.

GUMNUT PLANNING SCHEME

LOCAL
PROVISION

- Records of threatened species or communities and the boundaries of any sites of significance.
- Existing native vegetation or other habitat on the site and any native vegetation or other habitat to be removed, destroyed or lopped.
- Location of watercourses, water bodies and drainage lines.
- Location of any known fauna habitats or corridors.
- Location and management of rehabilitation and revegetation activities proposed to compensate in equivalent quality and quantity for clearing of native vegetation or other habitat.

5.0 Referral of applications

An application must be referred to the Department of Natural Resources and Environment under section 55 of the Act for advice regarding the potential impacts of the proposal and actions proposed to avoid, minimise or mitigate those impacts.

6.0 Decision guidelines

Before deciding on an application to construct a building; construct or carry out works; remove, destroy or lop any vegetation; or to subdivide land, the responsible authority must consider, as appropriate:

- The potential impacts on [name the specific threatened species the schedule is designed for] habitat value and potential habitat value of the area, or on other threatened species utilising the area.
- The impact of the proposal on the biodiversity conservation values of the area and its immediate locality.
- The reason for removing any vegetation and the practicality of any alternative options which do not require removal of native vegetation or other habitat components, where alternatives exist which do not require the loss of native vegetation or other habitat values these alternatives should be favoured.
- The results of any flora and fauna survey and assessment of the biological values of the land and consideration of whether the survey and assessment has been adequately completed under appropriate seasonal conditions and by suitably qualified personnel.
- Whether the flora and fauna of the area are to be adequately protected and their sustainability and long-term conservation ensured.
- The conservation requirements of [name the specific threatened species the schedule is designed for] and other threatened species or communities known from the site including those in recovery plans or action statements.
- Critical habitat, if determined under the *Flora and Fauna Guarantee Act 1988*.
- Whether there are statutory requirements under the *Environment Protection and Biodiversity Conservation Act 1999* or the *Flora and Fauna Guarantee Act 1988*.
- Whether appropriate management practices are proposed, including the control of environmental weeds.
- The contribution of the proposal towards the ecological restoration of the remnant vegetation and habitat, or the potential for the proposal to reduce the capability for ecological restoration of the site.
- The need to impose conditions on lot sizes, lot boundaries, road network, open space, building envelopes or effluent disposal sites to ensure better protection of the significant values of the site [or name the threatened species]

GUMNUT PLANNING SCHEME

LOCAL
PROVISION

- Any management requirements listed in Table 1 to this schedule including the imposition of appropriate controls to achieve this.
- The views of any other appropriate committee or authority [for example, relevant threatened species recovery team, friends of species, etc.].

7.0 References/information sources [as appropriate]

- Biosites database, Register of Sites of Significance, Flora and Fauna Division, DNRE, East Melbourne.
- Other surveys or assessment of sites of significance in the area used in compiling Table 1[nominate other documents identifying sites of significance].
- Action statements [for species identified as occurring in the area covered by the schedule (list species and plans)] prepared in accordance with provisions of the *Flora and Fauna Guarantee Act 1988*.
- Recovery plans (for species identified as occurring in the area covered by the overlays (list species and plans))(federal).
- *Freshwater Ecosystems: Biodiversity Management issues*, DNRE.
- Relevant management plans.
- Schedules 2 and 3 to the *Flora and Fauna Guarantee Act 1988*.
- Scientific Advisory Committee Recommendations on nominations for listing under the *Flora and Fauna Guarantee Act 1988*.
- *Threatened Vertebrate Fauna in Victoria 2000: A systematic list of vertebrate fauna considered extinct, at risk of extinction or in major decline in Victoria*, East Melbourne, DNRE.
- *Threatened Fauna in Victoria 1995: A systematic list of fauna considered extinct, at risk of extinction or in major decline in Victoria*, East Melbourne, DNRE [for threatened invertebrates only].
- Relevant regional vegetation plans.

APPENDIX 2- Example local planning policy

The text shown in blue shading are guidance notes, not part of the example local planning policy.

GUMNUT PLANNING SCHEME

LOCAL
PROVISION

22 LOCAL PLANNING POLICIES

22.01 BIODIVERSITY CONSERVATION

This policy would be appropriate for use in a municipality where the application of overlays is limited or where biodiversity information is insufficient for the application of overlays. It would be used to support the discretion provided in the zones and native vegetation provisions (Clause 52.17) to achieve better biodiversity outcomes on a precautionary basis.

This example provides policy direction for classes of assets and activities which may impact on biodiversity that were identified in the MSS as being important in Gumnut Shire. The MSS listed all 20 of the Shire's threatened species and nine EVCs found on private land, land managed by the local government and other small areas of public land (such as water frontages and road reserves). Of these assets, there was sufficient information about some to prepare a number of schedules to environmental overlays, mainly ESOs. The remaining threatened species and threatened EVCs were identified as requiring protection through a local planning policy. In addition, the MSS identified a number of issues affecting biodiversity in the municipality that required elaboration through a local planning policy – management of roadsides, management of riparian vegetation and wetlands and subdivision of bushland.

The structure of this policy may not be suitable in all circumstances. Alternative approaches include developing issue-specific local planning policies with a detailed decision guidelines relating to biodiversity (such as a policy to minimise impacts of subdivision within box iron bark forest or for riparian land) either within a general local planning policy on biodiversity conservation, or as separate local planning policies.

This policy applies to all land and waters in the Gumnut Shire where the following biodiversity assets are present:

- Areas of threatened EVCs: creekline grassy woodland, floodplain riparian woodland, alluvial terraces, herb-rich woodland, grassy dry woodland, hills herb-rich woodland and river red gum forest.
- Grassy woodland and native grasslands.
- Other remnant native vegetation.
- Habitats of threatened species including bush stone curlew, brush-tailed phascogale, squirrel glider, grey-crowned babbler, trailing hop-bush and hairy anchor plant.
- Roadside vegetation.
- Riparian habitats and wetlands.

22.01-1 Policy basis

This policy:

- Applies the biodiversity objectives in the SPPF (particularly Clauses 13 and 15.09-2) to local circumstances.
- Builds on and implements the objectives relating to the protection of biodiversity assets identified in the MSS (in Clause [enter number as appropriate] or list themes in the MSS the policy addresses).
- Applies the relevant recommendations of the *Broader Gumnut Regional Vegetation Plan, Sites of Zoological and Botanical Significance in Gumnut Shire, the Gumnut Roadside Management Plan, and the Goldfields and Victorian Riverina bioregional plans* [These should also be mentioned in the MSS as means of implementing the Shire's biodiversity objectives].
- Builds on the native vegetation provisions of Clause 52.17.

Gumnut Shire has a range of remnant native habitats supporting a wide variety of indigenous flora and fauna including some threatened species. These contribute to the shire's unique natural values.

[Include a list of threatened flora and fauna recorded in the municipality in the MSS. DNRE can generate species lists for all municipalities.]

Important elements of the Shire's biodiversity include:

- Species such as the bush stone curlew (*Burhinus grallarius*), brush-tailed phascogale (*Phascogale tapoatafa*) and squirrel glider (*Petaurus norfolcensis*) may occur at unrecorded sites in good quality habitat remnants in both the Grevillia Heights and Green River environs. These locations are not recorded in Statewide data systems due to the lack of detailed survey. Brush-tailed phascogale often occur in box ironbark forests and grassy woodlands. Bush stone curlew can also be found in box ironbark forest, grassy woodlands and open forest communities composed of grey box, river red gum or yellow box. Squirrel glider prefer dry forests, riverine forests and box woodlands, particularly the river red gum forests which follow Green River. This glider prefers habitat with abundant hollow-bearing trees and mix of eucalypts, acacias and banksias that include species that flower abundantly in winter and is particularly vulnerable to the impacts of habitat fragmentation and reduction of habitat size.
- Box-ironbark forest predominates on the slopes of the Box Ranges in the south of Gumnut Shire. Key issues in the protection of box ironbark forest include protection of existing remnants, and encouragement of measures to reduce fragmentation.
- In the south of the shire, particularly around the small community of Banksia, there are still moderate sized areas of heathy dry forest and grassy dry woodland and it is important to ensure that connectivity of these remnants is maintained and improved. Measures to improve links between these remnants and enhance their viability are also a high priority.
- Grassy woodland and grassland areas in the north of the shire are vegetation types that are threatened throughout the State. These small, special areas of grassland continue to be found on private land that has only been lightly grazed. The contribution that such remnants (even where the trees have been removed and only the native grassy understorey remains) can make to grassland conservation Statewide is significant.
- Within the agricultural areas to the west of the shire, remnants of the natural landscape are reduced to roadsides and streamsides and other small patches scattered in the landscape. Some roadside habitats left in this area contain abundant mature trees with relatively intact understorey vegetation, and frequently provide good connectivity between outlying public and private forest blocks and smaller remnants. While the remnants are small in many areas, they are all that remain of some vegetation classes on more fertile soils. Due to their small size they are particularly vulnerable to disturbance. Slashing of understorey species and removal of dead wood for firewood both impact on the viability of the habitat for grey-crowned babbler. Of particular note are the few remnants of hills herb-rich woodland in the west of the shire which are some of the best remaining examples of this ecological vegetation class in the region.

Several threatening processes impact on the shire's indigenous flora and fauna. Priorities to be addressed include the invasion of remnant vegetation by pest plants and animals, grazing within areas of indigenous vegetation, removal of isolated dead trees and intensification of agricultural practices particularly in areas of remnant native grassland.

Pest plants and animals are a particular problem for the grassy woodland areas near the rural residential areas on the outskirts of Grevillia Heights. This area is also subject to increasing pressure for rural residential development resulting in clearing large areas of box ironbark forest and grassy woodland.

[For the purposes of this example, assume that the policy has the appropriate basis and support in the MSS and that this is presented in general terms in the MSS. As this level of detail is important for exercising discretion, it is more appropriately included in the local planning policy.]

[This material can be sourced from bioregional plan zone descriptions, ecological consultants, DNRE parks, flora and fauna and mapped data.]

22.01-2 Objectives

- To encourage otherwise appropriate land use and development that enhances or which has no impact on biodiversity assets and ecosystem health.

[While 'ecosystem health' is not mentioned in the policy basis, including it in the policy objectives assumes it is addressed in the MSS.]

- To identify protect and enhance existing and potential habitat of threatened species including bush stone curlew, brush-tailed phascogale, squirrel glider, grey-crowned babbler, trailing hop-bush and hairy anchor plant.
- To protect and enhance particular threatened rare and depleted EVCs.
- To identify, protect and enhance remnant grassland.
- To identify and protect habitat of threatened species.
- To protect the habitat corridors along Green River and its tributaries in the west of the shire, along roadsides and within habitat remnants.
- To achieve net gain in the extent and quality of native habitat.

[Although a key concept in native vegetation policy, this objective needs to be introduced and supported by the MSS.]

- To promote the restoration of degraded habitats and revegetation of cleared areas with indigenous species of local provenance.

22.01-3 Policy**Creekline grassy woodland, floodplain riparian woodland, alluvial terraces, herb-rich woodland, grassy dry woodland, hills herb-rich woodland and river red gum forest**

This section indicates those threatened EVCs requiring the most stringent extra protection, but which are not covered by an overlay.

It is policy to:

- Avoid the removal, destruction or lopping of vegetation.
- Refuse development in locations with significant biodiversity assets that would be adversely affected by the development, if alternative sites, which would result in lesser impacts, are available.
- Exclude areas of native vegetation, from the proposed subdivisions or developments.
- Require management of activities (including reduced intensity and changes to the timing of an activity) to minimise the impact of the proposal. [for example definition of building envelopes, limit of any clearance for fencing and other works, restriction of areas where construction materials may be stored, ensuring machinery is cleaned before entering site in phytophthora is a potential issue.]

Where a permit is required for a proposal that involves the removal destruction or lopping of native vegetation or other impacts on biodiversity values, it is policy to:

- Ensure an appropriate contribution to targets for Net Gain in the extent and quality of native vegetation, as established in the Gumnut Regional Native Vegetation Plan and the MSS.

Other remnant native vegetation

[This section articulates the municipality's views of likely outcomes for applications impacting on native vegetation contributing to biodiversity.]

It is policy to:

- Avoid removal, destruction or lopping of native vegetation.
- Exclude areas of native vegetation from proposed subdivisions or developments.
- Refuse development in locations that will negatively impact upon biodiversity assets if alternative sites, which would result in lesser impacts, are available.
- Require management of activities (including reduced intensity and changes to the timing of an activity) to minimise the impact of the proposal (for example, definition of building envelopes, limit of any clearance for fencing and other works or restriction of areas where construction materials may be stored).

Where a permit is required for a proposal that involves the removal, destruction or lopping of native vegetation or other impacts on biodiversity values, it is policy to:

- ensure an appropriate contribution to targets for net gain in the extent and quality of native vegetation, as established in the Gumnut Regional Native Vegetation Plan and the MSS.

Habitat of threatened species (bush stone curlew, brush-tailed phascogale, squirrel glider, grey-crowned babbler, trailing hop-bush and hairy anchor plant)

[Threatened species may occur across a range of EVCs both threatened EVCs and EVCs of lower conservation status, and in some cases may occur in areas which are not native vegetation (for example beaches, rock outcrops, or exotic vegetation). Habitat of threatened species is therefore dealt with as a separate policy item to the native vegetation in this policy.]

It is policy to:

- Avoid removal, destruction or lopping of and other damage to vegetation and habitat of threatened species.
- Refuse development in locations with significant biodiversity assets that would be adversely affected by development, if alternative sites, which would result in lesser impacts, are available.
- Require management of activities (including reduced intensity and changes to the timing of an activity) to minimise the impact of the proposal (for example, definition of building envelopes, limit of any clearance for fencing and other works and restriction of areas where construction materials may be stored).

Where a permit is required for a proposal that involves the removal destruction or lopping of native vegetation or other impacts on biodiversity values, it is policy to:

- Ensure an appropriate contribution to targets for net gain in the extent and quality of native vegetation, as established in the Gumnut Regional Native Vegetation Plan and the MSS.

Roadsides

It is policy to:

- Minimise the impact of access-ways to private property on remnant roadside vegetation.
- Ensure roadside management activities are consistent with the Gumnut Roadside Management Plan wherever roadside management activities and works take place.

Riparian land and wetlands

It is policy to:

- Ensure that new allotments adjacent to riparian land and wetlands are of a sufficient size to accommodate a vegetated buffer of at least xm from the water margin and a building envelope that does not extend into the vegetated buffer.
- Ensure that the subdivision is designed to protect riparian and wetland biodiversity assets.
- Exclude riparian land, wetlands and other areas and features of habitat/vegetation significance from the proposal.
- Not support development in locations with biodiversity values if alternative sites, which would result in lesser impacts, are available.
- Encourage particular river management activities for biodiversity enhancement, such as re-establishment of riparian vegetation.
- Encourage the use of suitable indigenous species to minimise soil erosion.
- Avoid clearing or damaging native vegetation or water margins.
- Ensure that vegetation buffer zones to be fenced are of a sufficient width to create a suitably diverse and stable riparian environment. the minimum width of the vegetation buffer zone should be 30 m along Green River and 20 m along its tributaries and other creeks and wetlands in the Shire).

Where a permit is required for a proposal that involves the removal destruction or lopping of native vegetation or other impacts on biodiversity values, it is policy to:

- Ensure an appropriate contribution to targets for Net Gain in the extent and quality of native vegetation, as established in the Gumnut Regional Native Vegetation Plan and the MSS.

Subdivision

It is policy to:

- Consider the potential impact of subdivision on habitats (If a proposal for subdivision will result in land being subdivided to lots under 0.4 ha, the native vegetation provisions in Clause 52.17 will not apply. For example, through additional exemptions from permit requirements resulting from reduction in lot size, etc., increased density of buildings, of domestic pets, increased utilisation of firewood.)
- Where subdivision in areas with threatened or depleted within EVCs occur, particularly in the Low Density Residential Zone on the outskirts of Grevillia Heights to restrict building envelopes to areas which are already cleared.
- Support subdivisions designed to exclude and protect areas of native vegetation or at least minimise the impact on biodiversity assets.
- Encourage subdivisions with lots greater than the minimum lot size if this will reduce the potential for negative impacts on biodiversity assets.
- Seek the advice of DNRE for any subdivision of land in or near the Box Ironbark Forest and Grassy Woodland north of Grevillia Heights, on the slopes of the Box Ranges and around Banksia, including land in the Low Density Residential Zone.

Where a permit is required for a proposal that involves the removal destruction or lopping of native vegetation or other impacts on biodiversity values, it is policy to:

- Ensure an appropriate contribution to targets for net gain in the extent and quality of native vegetation, as established in the Gumnut Regional Native Vegetation Plan and the MSS.

Information to accompany applications

It is policy that, when considering an application for subdivision of an area that contains native vegetation or other habitat or a proposal that involves the destruction removal or lopping of native vegetation or other habitat, applicants be requested to provide the following information:

- A report including (where relevant) [Select only those items relevant to the issue being addressed]:
 - Identification of any native vegetation or other habitat components to be removed, destroyed, damaged or otherwise disturbed.
 - The reasons for any removal, destruction or lopping of any native vegetation or habitat components.
 - How the proposal responds to the decision guidelines of this policy and any other relevant provision in the scheme.
 - The type, condition and significance and flora and fauna values of the vegetation or other biodiversity components present at the site, which may be impacted upon (to be prepared by an appropriately qualified ecologist/biologist).
 - The impact on stream channel stability and on flooding characteristics.
 - The type, significance and flora and fauna values of the vegetation or other habitat components to be removed.
 - The measures to be taken to ensure that any impacts on native vegetation, flora and fauna are compensated for by rehabilitation or revegetation to meet the requirement of Net Gain in quantity or quality of native vegetation.
 - Other areas on the land that have been cleared within the previous 10 years whether or not this clearing required a planning permit.
- Scaled and dimensional plans showing, where relevant [Select only those items relevant to the issue being addressed]:
 - The existing title boundaries of the property.
 - The proposed subdivision layout.
 - Nearby properties.
 - Nearest public roads.

- Existing development.
- Existing fencing.
- Records of threatened species or communities and the boundaries of any sites of significance.
- Existing native vegetation or other habitat on the site.
- Any native vegetation or other habitat to be removed, destroyed or lopped.
- Location of watercourses, water bodies and drainage lines.
- Location of any known flora or fauna habitats or corridors.
- Location and management of rehabilitation and revegetation activities proposed to compensate in equivalent quality and quantity for clearing of native vegetation or other habitat.

22.01-4 Decision guidelines

Before deciding on an application, the responsible authority will consider, as appropriate:

- the impact of the proposal on the biodiversity of sites identified in *Sites of Zoological and Botanical Significance in Gumnut Shire*.
- for a proposal affecting road reserves, the management strategies in the *Gumnut Roadside Management Plan*.
- whether the proposal may be detrimental to the outcome of any recovery plan under the *Environment Protection and Biodiversity Conservation Act 1999* or Action Statement under the *Flora and Fauna Guarantee Act 1988*.
- whether habitat critical to the survival of a species or ecological community such as foraging, breeding, roosting or dispersal is likely to be adversely affected.
- whether the life cycle of the species is likely to be disrupted to the extent that a viable local population of that species will be adversely affected.
- whether an area of known habitat is likely to become isolated from currently interconnecting or nearby areas of habitat.
- whether any species or ecological community that may be impacted upon is at the limit of its known distribution.
- whether rare or threatened ecological communities or rare or threatened species will be adversely affected.
- whether a species or ecological community impacted upon by the proposal is adequately represented in conservation reserves (or other similar protected areas) in the municipality.
- whether the proposal is of a class of development or activity that is recognised as a potentially threatening process under the *Flora and Fauna Guarantee Act 1988*.
- whether an invasive species that is likely to be harmful to the ecological character of a significant habitat or ecological community is likely to be established as a result of works or development.
- The advice of the *Department of Natural Resources and Environment*.

References

Broader Gumnut Regional Vegetation Plan, Gumnut Catchment Management Authority, 2001
Sites of Zoological and Botanical Significance in Gumnut Shire, Murray Z Ball, 1989
Gumnut Roadside Management Plan, Gumnut Shire Council, 1997
Goldfields Bioregional Plan, Department of Natural Resources and Environment, 2001
Victorian Riverina Bioregional Plan, Department of Natural Resources and Environment, 2001

APPENDIX 3- Identifying biodiversity assets, values and threats and sources of biodiversity information

Identifying biodiversity assets, values and threats

Any planning action for biodiversity needs to utilise available information on the value and significance of biodiversity assets and threatening processes in the municipality.

The following aspects of biodiversity should be identified within the municipality:

- the contribution that biodiversity in the municipality makes to biodiversity in the bioregion and Statewide
- the EVCs present and their local and wider conservation status
- terrestrial habitats including areas of important native vegetation (threatened, rare or depleted EVCs, significant roadsides, wildlife corridors and habitat of threatened taxa)
- important aquatic habitats including wetlands, particularly those listed as internationally significant under the Ramsar Convention and rivers, particularly heritage rivers
- coastal habitats including those associated with marine reserves
- species and communities that are threatened at the national, State, regional and local level.

Table 1 in this appendix contains advice on sources of biodiversity information. Accurately mapped biodiversity information is becoming increasingly available. However, the quality, resolution and completeness of the information varies across the State.

The following issues should be considered when using existing information sources:

- many conservation studies have concentrated on highly significant sites. It is important that biodiversity of local and regional significance is also recognised and protected
- many taxa and ecological communities declining in their range and abundance have not yet been listed as threatened under State or Commonwealth legislation. These assets may also require protection through planning schemes
- the absence of published or detailed information on biodiversity values in a particular area does not mean there are no values. Information on a broader scale can be used to assess the likely presence of significant biodiversity assets.

In some cases, additional survey data may be required before a full evaluation of the biodiversity values of a site can be made.

Identifying and evaluating biodiversity assets

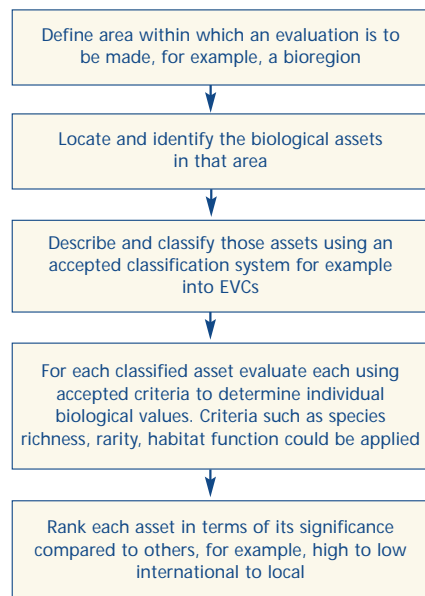
Identifying the value, quality or utility of biodiversity assets within a municipality is an important task for any local council.

Figure 1 illustrates the general steps involved in determining the value and significance of biodiversity assets. DNRE has developed standardised methodologies for evaluation and rating of significance of biodiversity assets. These are used in assigning significance to areas mapped and incorporated in the DNRE BioSites database.

Significance rankings can be useful in prioritising the level of protection and management required to conserve an asset. It is also useful in assessing the level of offset required to achieve the objective of Net Gain in extent and quality of native vegetation. The more important the biodiversity asset, the more critical are decisions about its future. The level of significance of a biodiversity asset can often be used as a guide to determine which planning control will be most appropriate. However, the effectiveness of the planning control is also a factor of the size and distribution of the asset and its resilience or sensitivity to change. The value of locally significant assets should also be considered in any review of a planning scheme and in decisions on planning permit applications, particularly to ensure the maintenance of ecosystem threshold levels.

The quality (condition and viability) of native vegetation and habitat areas is also an important consideration in determining the significance of a biodiversity asset. Determining the condition of an area includes considerations such as the presence of old trees, retention of the 'original' structure and floristic diversity, presence of regeneration and absence of weeds. Within a landscape context, assessing viability includes the size of the area and links to neighbouring areas.

Figure 1. General process undertaken to evaluate biodiversity values



Appendix 2 of Restoring our Catchments - Victoria's Draft Native Vegetation Management Framework (DNRE 2000a) provides the methodology for assessing the bioregional conservation status of EVCs. The results of this assessment are given in DNRE (2000d).

Threats to biodiversity

There are many threats to the conservation of biodiversity values within a municipality. Human activity has changed the Victorian landscape. Much irreversible damage has occurred

to biodiversity assets, and many of our ecosystems are in decline. The challenge is to manage the biodiversity assets that remain and rectify environmental damage where possible. To do this, we need to understand and manage the environmental risks arising from our economic and social development. Our lifestyles today, our desire for space and transport, and our demand for food, water, energy and manufactured products continue to place pressure on the environment and Victoria's biodiversity.

Table 1

Sources of biodiversity information

Information source	Information available	Further Information/Contact
DNRE (Information Centre)	General biodiversity information	((03) 9637 8080 www.nre.vic.gov.au
DNRE	Biodiversity Mapping (BioMap) at 1:100,000 and 1:25,000 Vegetation/Habitat mapping BioSites database – register of known biological significance Flora Information System and Wildlife Atlas – CD ROM Aquatic Fauna Database EVC mapping – vegetation type and status	Information Management, Parks Flora and Fauna. (03) 9412 4258 Email : Infomgmt.pff@nre.vic.gov.au
	DNRE threatened species lists Flora and Fauna Guarantee Act – lists of threatened taxa, communities and potentially threatening processes – action statements	www.nre.vic.gov.au Look under plants and animals
	Tree cover mapping at 1:100,000 and 1:25,000	Team Leader, Native Vegetation Management, Catchment and Water Division (03) 9412 4388
	Regional and local knowledge of biodiversity conservation issues, advice on specific content for overlays etc. Bioregional reports and plans	Flora and fauna planners in relevant DNRE region. www.nre.vic.gov.au
Catchment Management Authorities	Draft Regional Native Vegetation Management Plans	www.nre.vic.gov.au Look under land and water management
Information Victoria	Maps and publications on biodiversity	(03) 9603 9938
Local Councils	Native vegetation plans Roadside conservation plans Local environmental strategies Consultant reports	Environment officers in local councils - www.mav.asn.au/environment/environment.htm
Environment Australia (Commonwealth Government)	Environment Protection and Biodiversity Conservation Act – lists of nationally threatened species and ecological communities and key threatening processes – recovery plans for threatened species and communities, and threat abatement plans	www.ea.gov.au/epbc
	Information and publications on rangelands, oceans, coastlines, alpine areas, ozone protection, invasive species	www.ea.gov.au/about./publications/list