

This VPP Practice Note provides guidance on how to assess the significance of vegetation in urban areas and how to protect significant vegetation through the planning scheme.

Vegetation can make an important contribution to the urban environment. It may be of botanical or scientific significance or have environmental, historical, aesthetic or cultural value. Vegetation may also be important to the community in defining and contributing to the character of a city, suburb or township.

Often vegetation is removed or incrementally depleted if sites are redeveloped or through general maintenance of a property. These incremental changes can have an impact on the appearance of an area and result in the loss of significant vegetation.

Various measures can be used to protect vegetation in urban areas. The planning scheme is one way that significant or important vegetation can be identified and protected.

This practice note:

- identifies issues associated with protection of vegetation in urban areas
- outlines techniques for the assessment of the significance of vegetation
- provides guidance on developing local objectives and strategies for protecting vegetation through a local vegetation protection strategy and the planning scheme
- provides suggestions for using tools in the *Victoria Planning Provisions* (VPP) and other measures to implement local vegetation protection strategies
- provides guidance on enforcement and monitoring of policy performance.

Vegetation defined

Vegetation is defined as 'plants collectively; the plant life of a particular region considered as a whole' (*Macquarie Dictionary*, Third Edition).

Vegetation includes trees, shrubs, plants, grasses and wetland vegetation and their habitats. It includes native and exotic vegetation.

What are the key issues?

The key issues are to:

- identify the value of vegetation to the community and the factors that contribute to its value
- establish a reliable and consistent methodology to evaluate vegetation
- identify criteria for assessing vegetation for its natural and cultural value
- protect vegetation for its contribution to the character of an area
- identify the best methods of protecting vegetation
- balance the protection of vegetation with the practical considerations of vegetation management and safety
- manage change in the urban environment where increases in development densities result in the cumulative loss of vegetation
- control vegetation removal before development approval is granted.

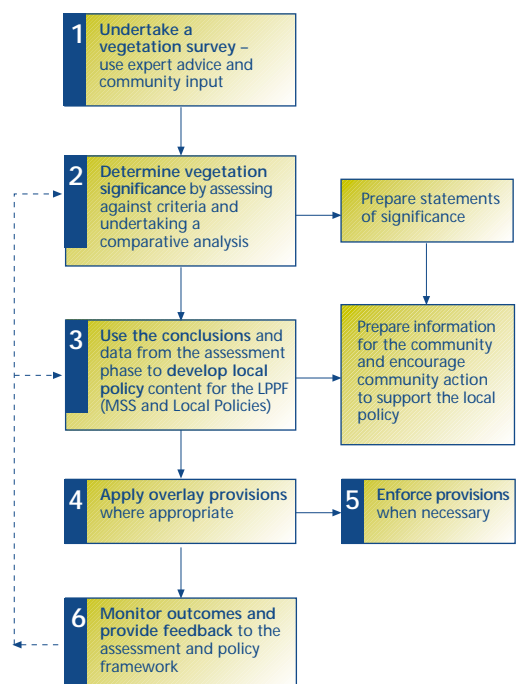
Developing a strategy for vegetation protection

A local strategy for vegetation protection should identify vegetation issues at the local level and formulate objectives and strategies for vegetation protection and enhancement. Suggested steps for preparing and implementing a local vegetation protection strategy are:

1. Undertake a vegetation survey
2. Determine vegetation significance
3. Prepare a local policy (MSS and local policy)
4. Apply overlay provisions, where appropriate
5. Enforce the planning scheme where necessary
6. Monitor outcomes.

If the planning scheme is to be used to protect vegetation, a vegetation survey or study must be undertaken. The survey can be a component of, or contribute to, urban character or heritage studies. If the principal objective is to identify and protect vegetation for its aesthetic value or its contribution to the character of an area, this may be achieved as part of an urban character study.

Figure 1. Illustration of the process in detail.



What is significant vegetation?

Types of significance

Vegetation in urban areas can play an important role by:

- maintaining biodiversity (community, species or genetic diversity) often in small remnants of habitat
- containing complete communities (or ecosystems) of indigenous species. Some may contain rare or endangered species or may be important for interaction between species (for example, the rare Eltham Copper Butterfly is dependent on Sweet Bursaria [*Bursaria spinosa*] for its survival)
- providing valuable habitat for wildlife and wildlife corridors
- halting or stabilising environmental degradation processes such as soil erosion, salinity, changes in the depth of the watertable or climate modification
- providing useful seed sources from remnant vegetation for local regeneration projects
- its cultural associations (including social, spiritual, aesthetic and historical)
- its contribution to the character of the area. Vegetation may be the main feature defining the character of an urban area (for example, Blackburn Lake area, City of Whitehorse).

How can you assess significance?

Significance may be determined based on an:

- objective assessment of scientific information and research, considered on merit rather than community opinion
- subjective assessment of aesthetic aspects, requiring a variety of community opinion

or a combination of the two.

The steps in determining significance are:

1. Gathering information
2. Assessing against criteria
3. Comparative analysis (establishing comparative significance ratings)
4. Preparing statements of significance.

1. Gathering information

- Undertake a broad survey to identify areas likely to contain important or significant vegetation. A number of information sources are available to assist in this process (see references)
- Check if any vegetation is formally recognised on the *Register of the National Estate*, *National Trust Register* or listed under the *Flora and Fauna Guarantee Act 1988*
- Focus on specific areas or sites of interest
- Undertake a vegetation survey of specific areas or sites. Vegetation surveys must be undertaken by suitably qualified arboricultural consultants, botanists, landscape architects or other experienced environmental scientists
- Involve the public in the survey and assessment process, whether the assessment method has an objective (scientific) or subjective (aesthetic) basis.

Many community and environmental groups can make a significant contribution to the technical aspects of a vegetation study based on local knowledge. This is particularly important when considering local significance and particular qualities that contribute to the sense of place and identity or define its character.

Surveys provide a valuable 'snapshot' of vegetation at a point in time and are valuable for monitoring planning policy and the effect of planning scheme requirements. As vegetation changes over time, vegetation surveys should be periodically reviewed.

2. Assessing against criteria

Assessment methods must be rigorous as they provide strategic justification for protection through the planning scheme and will be the basis of decisions.

Recognised assessment criteria should be used. Of the many sets of criteria that have been developed, the eight broad assessment criteria of the Australian Heritage Commission's (AHC) criteria for assessing places for listing on the *Register of the National Estate* have the benefit of encompassing natural and cultural significance, including Aboriginal significance, and are recommended.

Under the AHC criteria, vegetation may be significant or of other special value because of its:

- A. Importance in the course, or pattern, of Australia's natural or cultural history
- B. Possession of uncommon, rare or endangered aspects of Australia's natural or cultural history
- C. Potential to yield information that will contribute to an understanding of Australia's natural or cultural history
- D. Importance in demonstrating the principal characteristics of a class of Australia's natural or cultural places or environments
- E. Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group
- F. Importance in exhibiting a high degree of creative or technical achievement at a particular period (*relevant to cultural heritage places rather than vegetation*)
- G. Strong or special associations with a particular community or cultural group for social, cultural or spiritual reasons
- H. Special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

(Note: also see more specific sub-criteria for each of the eight criteria adopted by the AHC – see References for AHC contact details.)

Other useful criteria include:

- *National Trust (Victoria), Register of Significant Trees of Victoria* criteria. This has been developed to be applied to trees or a group of trees
- *Australian Natural Heritage Charter (Australian Committee for IUCN 1997)*. This contains standards and principles for the conservation of places of natural heritage significance
- Other criteria have been developed for individual studies, for example, the NEROC study (see references) and may be acceptable.

These criteria may also provide a framework to assess the aesthetic or cultural value of vegetation.

3. Comparative analysis

Measures to protect vegetation should be justified based on the identification of the comparative importance of vegetation. This may include rarity, degree of representation and integrity.

Comparison of one place with another of similar features and values allows the level of significance to be determined, ranging from national to State, to regional or local significance. Comparisons can be made within each level, or across levels. Rather than councils individually undertaking vegetation studies, there is value in undertaking vegetation surveys on a regional level. The NEROC study of north-east Melbourne involved four councils.

Where vegetation of local significance is to be protected under the planning scheme, this should be similarly assessed and documented to substantiate its natural or cultural importance.

If surveys reveal new sites of national or State significance, these should be referred to Heritage Victoria (for trees, gardens and other places of cultural significance), the Department of Natural Resources and Environment (*Flora and Fauna Guarantee Act 1988*) or Aboriginal Affairs Victoria (sites of Aboriginal significance). Recognition by these organisations may support protection under the planning scheme.

4. Statements of significance

A statement of significance is a succinct statement expressing what vegetation is significant or important and why. It should be written with reference to the assessment criteria and based on the survey results and, if relevant, reliable secondary data. It should not restate the survey or documentary evidence but be cross-referenced to it. The level of significance will enable the development of appropriate policies.

Statements of significance may be prepared for individual items of local significance or vegetation areas.

An example of a statement of significance

**Federal Oak
Parliament House Gardens
Spring Street
Melbourne**

The first plantings in the Parliament House Gardens took place in 1856. In 1885, land was purchased at the north east of the Parliamentary Reserve from St Peter's Church of England. A garden layout was prepared by Peter Kerr, the designer of Parliament House. In about 1888, William Guilfoyle, Director of the Melbourne Botanic Gardens redesigned the gardens and the planting was well established by 1892. The layout today conforms to this design. In February 1890, an Algerian Oak (*Quercus canariensis*) was planted by the Premier of New South Wales, Sir Henry Parkes (1815–96), to commemorate the Australasian Federal Convention of 1890–91. This tree has become known as the Federal Oak.



Federal Oak. Photograph by J. Hawker, 1995.

The Federal Oak is of historic significance for its associations with the Australasian Federal Convention, the first meeting of statesmen from the colonies to agree to the concept of Federation. The conference also signalled the beginning of the constitutional conventions designed to frame a Federal Constitution (AHC Criterion A.4).

The Federal Oak is of historic significance for its association with Sir Henry Parkes, an important figure in Australian political history. Parkes first entered the New South Wales Parliament in 1854 and first became Premier in 1877. He initiated numerous reforms and formed his fourth ministry in 1887. From 1889, he was a key figure in the federal movement and is regarded as the 'Father of Federation' (AHC Criterion A.4).

(Source: Heritage Council Victoria)

(Note: The statement of significance is a statement of the conclusion of a detailed process of assessment and is only part of the documentation required to substantiate the significance of a place.)

Summary

- Significance is often a combination of factors – for example, environmental and cultural, historic and aesthetic.
- Remnant vegetation in urban areas is modified but still important as habitat.
- Mixed urban plantings will often have cultural, aesthetic and amenity value.
- Vegetation is changing – growing and declining.
- Vegetation of local or greater significance should be surveyed and documented to support the introduction of planning policies and provisions.
- Surveys must be undertaken by qualified persons.
- Analysis of survey results should identify the comparative importance of vegetation to justify policies and protection measures.
- Prepare a succinct statement of significance.

Using the planning scheme to protect and conserve vegetation

Developing a strategic vision – MSS and local policies

If it is proposed to protect vegetation in a planning scheme, this must be supported by strategic justification and identified in the Municipal Strategic Statement (MSS).

The role of the MSS is to provide a vision for the future development of the municipality and provide a framework for local policies and the application of zones and overlays. The MSS should clearly articulate objectives for protecting vegetation, strategies for achieving the objectives and practical implementation measures.

The objectives should state why vegetation should be protected, what level of protection is being sought and what the desired outcomes are for protecting vegetation drawing on strategic work. Consideration should be given as to whether other planning scheme requirements would assist in meeting the objectives (such as buildings and works requirements).

The community should have ownership of the objective by being involved in formulating the strategic vision. If the community is involved, there is a greater likelihood that the outcomes sought by the planning scheme will be understood and supported.

Objectives for protecting vegetation may be related to other objectives such as protecting significant landscapes, valuable habitats or the character of a place or area.

Local policies should explain and inform planning decisions. They should reinforce and emphasise broader strategic objectives. In some areas, where vegetation protection is important to council's broader planning objectives, the preparation of a specific policy for vegetation protection may be preferred (such as in the Yarra Ranges Planning Scheme). Typical local policies may reinforce the need to protect remnant vegetation, emphasise the significance of mature vegetation or the need to actively eradicate environmental weeds.

In some instances, a local policy may be all that is required to achieve a particular objective.

Resource implications

Remember to consider the resources needed to implement the planning requirements, including providing assistance and advice to property owners and developers.

Summary

- **What is the strategic objective or vision? What is the outcome being sought?**
- **Demonstrate the strategic and policy basis for vegetation protection.**
- **Show a clear link between the objectives, strategy and implementation measures.**
- **Involve the community.**
- **Ensure that there is rigorous justification for the policy and provisions.**
- **Consider the resources needed to give advice and administer scheme requirements.**



Araucaria heterophylla. William Street, Port Fairy. Photograph by J. Hawker, 1993.

Selecting a planning tool

The principal tools in the VPP to protect vegetation in urban environments are overlays.

The native vegetation provisions of Clause 52.17 may assist in protecting remnant native vegetation, however, they aim to prevent broad-scale clearing of vegetation and will have limited applicability in urban areas with small lot sizes.

The VPP contains four overlays that can be used to protect and manage vegetation in urban areas; the Vegetation Protection Overlay (VPO), the Environmental Significance Overlay (ESO), the Significant Landscape Overlay (SLO) and the Heritage Overlay (HO). Each overlay includes a schedule that is used to specify how the overlay applies to land within a particular municipality.

Choosing the correct overlay is important and the principles used should be applied consistently throughout the planning scheme. The following questions should be asked when choosing an overlay to protect vegetation:

1. What is to be protected (*individual or group of trees, area of habitat, etc.*)?
2. Why is it being protected (*heritage, scientific, cultural, landscape or habitat value*)?
3. How should it be protected (*protection of the root zone, requirements about buildings and works, subdivision*)?
4. What other requirements apply to the land and are there any gaps (*zone provisions, other overlays, native vegetation provisions*)?

The overlay selected should accurately reflect the identified objectives. In other words, there should be transparency in the application of planning policy and requirements. This may involve weighing up various reasons for protecting the vegetation. For example, the principal reason for a tree's significance may be its cultural value rather than its habitat value. The tree may be of Aboriginal significance or contribute to the setting of an historic building. Therefore, the HO may be more appropriate than a VPO.

The overlay should also provide the appropriate requirements to achieve the objective. In urban situations, buildings and works can have a significant impact on vegetation, including intruding on the root zone. In these cases, an overlay that provides requirements for buildings and works may be chosen. If the root zone is to be protected, the schedule may only require a permit for buildings and works within a certain distance from the vegetation.

Overlays for vegetation protection

Vegetation Protection Overlay

The VPO is specifically designed to protect significant native and exotic vegetation in an urban or rural environment. It can be applied to individual trees, stands of trees or areas of significant vegetation.

The purposes of the VPO are to:

- protect areas of significant vegetation
- ensure development minimises loss of vegetation
- preserve existing trees and other vegetation
- recognise vegetation protection areas as locations of special significance, natural beauty, interest and importance
- enhance habitat and habitat corridors for indigenous fauna
- encourage the regeneration of native vegetation.



Washingtonia filifera. 3rd Street, Merbein. Photograph by E. Lawton.

The VPO does not include buildings and works or subdivision requirements. It is, therefore, the appropriate tool for identifying and protecting vegetation where buildings and works or subdivision are not important considerations.

The VPO requires a permit to remove, destroy or lop any vegetation specified in the schedule to the overlay. The responsible authority must specify the vegetation affected in a schedule and prepare a statement of the nature and significance of the vegetation to be protected, the vegetation protection objectives to be achieved and must specify permit requirements and decision guidelines. More than one area may be identified and multiple schedules may be required.

The area to which the schedule applies is identified geographically on the planning scheme maps and may be applied to an area or a specific group, individual trees or plants.

The vegetation specified in Clause 42.02-2 is always exempt from the overlay requirements. This includes, but is not limited to, the removal of vegetation to clear electric lines and the removal, destruction or lopping of vegetation for emergency access.

Examples of where the VPO has been applied include:

Wyndham Planning Scheme

- Truganina Cemetery
- Angliss Estate Grassland Reserve

Mornington Peninsula Planning Scheme

- township vegetation (includes the Mt Eliza escarpment, areas within Mornington township, rural residential areas of Somerville, Hastings, Crib Point, Westernport coastal villages and the hillside, cliff top, sand dune and wild coast areas of the southern Mornington Peninsula)
- significant roadside treelines (roadside reserves, along streamlines and within private property)

Banyule Planning Scheme

- Loyola Seminary Precinct.

Environmental Significance Overlay

Where there are environmental constraints on development or other important ecological values are identified, such as in coastal or riparian habitat, the use of an ESO may be appropriate.

This overlay is applied if vegetation protection is part of a wider objective to protect the environmental significance of the area.

The ESO has broader applicability than the VPO. The ESO may contain requirements for the construction of buildings and the carrying out of works as well as fence construction. It can also include requirements for subdivision and the removal, destruction or lopping of vegetation.

A schedule to the ESO is used to specify the name of the environmental significance area and provides a statement of the environmental significance and environmental objectives to be achieved. For vegetation, the schedule can specifically state if a permit is not required for the removal, destruction or lopping of vegetation. If exemptions are not specified in the schedule, all vegetation within the overlay area is protected except the vegetation specified as exempt in Clause 42.01-2.

Examples of where the ESO has been applied include:

Yarra Planning Scheme

- Yarra River environs
- Green Creek and environs
- Darebin Creek and environs

Port Phillip Planning Scheme

- light rail remnant indigenous vegetation

Greater Dandenong Planning Scheme

- Greens Road Plains grassland area
- Abbots Road vegetation protection area.

Significant Landscape Overlay

The SLO also has broader applicability than the VPO. Its function is to identify and conserve the character of a significant landscape. The SLO is appropriate when vegetation is primarily of aesthetic or visual importance in the broader landscape and should be used where vegetation is identified as an important contributor to the character of an area.

The SLO also includes permit requirements for building and works which can be applied where appropriate to assist in vegetation protection.

In the SLO, the schedule to the overlay must specify a permit requirement for the removal, destruction or lopping of vegetation.

Examples of where the SLO has been applied include:

- Baw Baw Planning Scheme
 - Walhalla township
- Wyndham Planning Scheme
 - Werribee River
 - Skeleton Creek Including Dry Creek Tributary
- Queenscliffe Planning Scheme
 - Swan Bay landscape area
 - Point Lonsdale Lookout and Queenscliffe Lighthouse/Ocean View carpark
 - The Narrows (area between Point Lonsdale and Queenscliff).



Ulmus procera. Camperdown. Photograph by J. Hawker.

Heritage Overlay

The purposes of the HO include conserving and enhancing places of natural and cultural significance and ensuring that development does not adversely affect the significance of heritage places.

As well as buildings and structures, a heritage place can include a tree, garden, park, reserve or significant landscape. The tree controls could apply to the whole of a heritage place (for example, a park, reserve or garden) or a tree or group of trees could be specifically nominated as a heritage place (such as a landmark or specimen tree or an Avenue of Honour).

Under the HO, a planning permit is required to remove, destroy, prune or lop a tree if the schedule to the overlay identifies the heritage place as one where tree controls apply. However, in addition to this requirement, the HO also regulates the construction of buildings and the construction or carrying out of works. It is important to include land surrounding the tree or trees to ensure that any new development takes into account the health, appearance, significance or setting of the tree. As a guide, all land within five metres of the canopy edge of the tree or trees should be included in the overlay area.

Examples of where the HO has been applied include:

- Melbourne Planning Scheme
 - Aboriginal scarred tree, Royal Zoological Gardens
 - Maidenhair tree, Flagstaff Gardens
- Ballarat Planning Scheme
 - House and garden, Webster Street, Ballarat
 - Ballarat Avenue of Honour, Ballarat-Burumbet Road, Ballarat
- Glenelg Planning Scheme
 - Cork Oak, Uniting Church, Percy Street, Portland
 - Norfolk Island Pines, Cliff Street, Portland.

Examples of schedules to the VPO, ESO and SLO are attached.

Other implementation measures

The Good Design Guide for Medium Density Housing, Revision No. 2, April 1998

Significant vegetation must be considered in the assessment of planning permit applications for medium-density housing under the Good Design Guide.

A site analysis and design response should identify existing vegetation on the site and significant vegetation within the surrounding area. The Good Design Guide recognises the importance of vegetation in the assessment of applications in the objectives for Urban Character (Element 3) and Site Layout and Landscaping (Element 4). Other elements may indirectly relate to vegetation protection, such as Building Envelope (Element 6) and Visual and Acoustic Privacy (Element 7).

Local variations to the Good Design Guide

Councils can prepare local variations to the Good Design Guide to protect 'special characteristics' of their municipality. To be accepted, local variations that include vegetation requirements must demonstrate the special character of the vegetation or its contribution to the character of an area in comparison with adjacent areas (see the *Advisory Committee Report on the Monash Planning Scheme Local Variations to the Good Design Guide*).

Local variations, if justified, are likely to be only part of an integrated and wider set of strategies for all areas of the municipality (*Advisory Committee Report, p. 111*).

Section 173 agreements

A Section 173 agreement under the *Planning and Environment Act 1988* can be used to manage significant vegetation on development sites and can be effective if bonds are necessary.

Design and Development Overlay

The Design and Development Overlay (DDO) is not a tool to protect vegetation. The schedule may, however, contain specific landscaping requirements to ensure that a new development is respectful of the landscape character of the neighbourhood.

Summary

- The MSS and local policies should provide the strategic basis for the application of vegetation provisions.
- Overlays are the principal tool in the VPP to protect vegetation.
- The VPO specifically protects vegetation.
- The ESO protects vegetation and wider environmental values.
- The SLO may protect vegetation in the broader landscape context.
- The HO may protect trees and gardens of State, regional and local heritage significance.
- The Good Design Guide requires vegetation on sites and in the neighbourhood to be considered.
- Local variations must demonstrate special character.
- Section 173 agreements under the Planning and Environment Act may be a suitable tool in some circumstances.
- The DDO is not an appropriate tool to protect vegetation.

Other ways of protecting and managing vegetation

Local laws

Local laws prepared under the *Local Government Act 1989* may be used to protect vegetation. For example, the City of Bayside has introduced a local law to protect identified significant trees (listed on council's significant tree register) or existing tree canopies on private properties for their amenity value (see Bayside City Council Environmental Local Law No. 2 [Amendment No. 1]). This approach may be considered as an alternative to using the planning scheme.

Incentives and assistance programs

Financial incentives or assistance programs may be considered to encourage landowners to retain vegetation, particularly indigenous vegetation where financial return is perhaps less obvious.

Increased awareness of the value of careful landscape assessment and care of existing vegetation during construction phases should be promoted through peak building and development bodies. This could be linked to awards or incentives for good performance.

Differential rating could offer a reduction in the rate for sites of botanical significance. A rate rebate could be granted for vegetation protection works. Opportunities to access assistance from government and community organisations to assist community education and self-help programs should be explored. The National Landcare Program is an example.

Information and guides

Ongoing protection and conservation of vegetation relies on sound community understanding of the benefits, the potential disadvantages and the management implications. Information sources may include:

- *brochures*: on topics such as indigenous vegetation and pest plants
- *local newspaper*: can be used to report on the progress of community projects and events
- *Vegetation Protection Guidelines*: these could be published to aid pre-planning of building projects, landscaping of gardens, and land management. They could include sections on site planning for subdivision, building development, protecting existing vegetation during construction and safety in relation to diseased or dangerous vegetation
- *signage*: signs can be used to identify significant sites, roadsides, etc. and to alert people to the need for permission to remove vegetation.



Ulmus x hollandica. Avenue of Honour, Bacchus Marsh. Photograph by J. Hawker, 1983.

Planting programs

- Encourage planting of vegetation that may be important in heritage or cultural landscapes.
- Provide specialist advice and information about the original vegetation and species in a locality that may be suitable for revegetation.
- Provide lists of plants relating to periods of garden development.
- Provide free tube stock for new gardens. Local nurseries and garden suppliers may be willing to distribute information on landscape and vegetation conservation.
- Garden clubs, service organisations, 'friends' groups and schools, with some funding and encouragement from councils, may be willing to provide valuable volunteer assistance in revegetation of open spaces such as parkland and waterways.



Ginkgo biloba. Flagstaff Gardens, Melbourne. Photograph by J. Hawker, 1992.

Community awareness

Community involvement in the strategy development process can stimulate education and publicity about the value of existing vegetation, the need for its protection and control over its removal.

Pre-application consultation can ensure that the planning objectives and importance of vegetation are recognised and costly delay avoided.

Street planting, park and open space planting policies

Significant roadside vegetation, or vegetation in parks or open space is often owned or managed by the council whether or not it is protected under the planning scheme. Master plans, street tree programs and maintenance policies can be prepared and adopted by councils to improve the appearance of streetscapes and other public spaces. They may also encourage the undergrounding of essential services and the planting of shade trees.

Enforcement

Protecting significant vegetation using the planning scheme places an obligation on councils to carry out enforcement.

Gaining support for the principle of vegetation protection and improving knowledge of the planning provisions, their objectives and how they work, should assist in reducing the need for formal enforcement action. Enforcement strategies should, therefore, focus on community education and participation in order to gain broad support for vegetation and management policies rather than relying only on enforcement measures under the Planning and Environment Act.

The availability of advice and assistance and the efficient handling of applications may also minimise cases of unlawful vegetation clearance.

Enforcement methods can be supported by:

- periodic review of the vegetation inventory as part of the normal planning process
- the appraisal of the effectiveness of the vegetation provisions and permit conditions in practice
- regular inspections of work sites
- enforceable permit conditions and agreements.

It is also essential that the record of existing conditions contained in the vegetation survey, photographs of the area or site and the assessment of significance are available as evidence. This material may need to be supported by expert evidence.

If negotiations with owners or developers to seek compliance with vegetation provisions fail, depending on the severity of the offence, an infringement notice, an interim enforcement order or enforcement order through the Victorian Civil and Administrative Tribunal may be required to recover or reinstate the vegetation.

Each method of enforcement has its advantages and disadvantages. Infringement notices are normally issued for minor offences but can be issued on the spot. If the case proceeds to the Magistrate's Court, minimal penalties may result. An interim enforcement order should be considered for more serious offences if time and the nature of the offence allow. Unfortunately, enforcement action is often too late to halt vegetation clearing. Subsequent orders will, however, effectively specify the things required to ensure compliance with the permit conditions or agreement.

Monetary value of vegetation

The monetary value of vegetation is a valid consideration when assessing whether or not a tree should or should not be reinstated.

Estimation of the amenity value of trees, translated into monetary terms, has been proposed as a way of ensuring that the importance of vegetation is recognised in planning and management decisions.

Some councils and professional arborists have adopted methods of evaluating trees. These take into account a range of indicators such as species, age, condition, historical association, site suitability and life expectancy.

Monitoring

Ongoing monitoring of planning schemes and the planning system is a key feature of the reform program.

To determine whether planning policy and provisions are successfully protecting vegetation, council must develop a monitoring program. Monitoring is critical as it can provide information that enables current practices to be reviewed.

In developing a monitoring program for vegetation protection, council should:

- be clear about what key elements of the planning scheme and planning system it wants to monitor
- identify indicators of council's performance in relation to these key elements
- establish performance targets for particular indicators to guide the assessment of success.

Below is an example of a performance monitoring framework for vegetation protection.

1. Vegetation protection objective to be achieved

- To protect and conserve native vegetation and habitat areas, including those of rare, threatened and endangered flora and fauna species, along roadsides, streamlines, linear reserves and other treelines.

2. Indicators

- Net loss or effect on specified vegetation as a result of a planning approval
- Net loss or effect on specified vegetation by unauthorised activity in terms of type and area of vegetation lost
- Successful negotiations to retain vegetation and habitat areas
- Awareness of objective in council maintenance works
- Change in vegetation cover.

3. Targets

- Per cent net loss of mature vegetation cover
- Per cent compliance with permit conditions to replace lost vegetation as part of a replanting program.

Consistent approaches to monitoring are encouraged. Neighbouring councils may wish to work together to adopt a consistent approach, to share information and develop best practice.

When developing targets and indicators, it is very important to start small. To collect information for even one indicator can often require substantial improvements to current systems. For example, councils may need to improve the way they maintain their Municipal Planning Register, conduct an annual vegetation survey or carry out regular audits of planning condition compliance.

Summary

- Ensure efficient handling of inquiries and applications.
- Periodically review the vegetation inventory to monitor the effectiveness of the scheme requirements.
- Ensure permits and agreements are properly drawn up and enforceable.
- Carry out inspections to ensure permit conditions are being complied with.
- Ensure proper records of surveys of existing vegetation are kept.
- Negotiate, where possible, to ensure compliance with provisions.
- Enforcement action should seek to recover or reinstate as much of the significant vegetation as possible.
- Infringement notices are for minor offences.
- Consider an interim enforcement order if time and the nature of the offence allow.
- Consider the monetary value of trees in supporting decisions to retain them.
- Develop a realistic, targeted monitoring system.

Useful references, case studies and information sources

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- Bedgegood SE, McMahon ARG, Schulz M, Race GT and Gerner M 1992, *Sites of Botanical and Zoological Significance East of Mullum Mullum Creek City of Doncaster and Templestowe Victoria* (by Ecological Horticulture P/L and Gerner and Sanderson P/L for the City of Doncaster and Templestowe).
- Bedgegood SE, Collinson MH, McMahon ARG, Lane BA and Tonsley MR 1997, *Sites of Botanical and Zoological Significance in Wonga Park* (by Ecology Australia P/L and AGC Woodward-Clyde P/L for the City of Manningham).
- City of Banyule 1998, *Banyule Planning Scheme*.
- City of Frankston 1998, *Frankston Planning Scheme*.
- City of Manningham 1995, *Site Design Guide for Residential Development on Bushland Fringes in the City of Manningham*.
- City of Prahran 1992, *Significant Tree and Garden Study*
- City of Whitehorse 1998, *Whitehorse Planning Scheme*.
- Context P/L et al 1991, *A Study of Roadside Environments in the City of Doncaster and Templestowe*.

Information sources

- BioMap Flora and Fauna Program, Department of Natural Resources and Environment, July 1997
- A range of products and databases are available from the Department of Natural Resources and Environment (contact your DNRE regional office)
- Australian Heritage Commission
GPO Box 787
Canberra ACT 2601
AUSTRALIA
- Telephone (02) 6274 1111
Fax (02) 6274 2095

Legislation

- Flora and Fauna Guarantee Act 1988*
- Catchment and Land Protection Act 1994*
- Planning and Environment Act 1987*
- Heritage Act 1995*.

1. Schedule to Vegetation Protection Overlay
2. Schedule to Environmental Significance Overlay
3. Schedule to Significant Landscape Overlay

These examples demonstrate ways in which schedules can be written.
It is not implied that the content is appropriate to any specific location.

SCHEDULE 1 TO THE VEGETATION PROTECTION OVERLAY

Shown on the planning scheme map as VPO1

GUMNUT VEGETATION PROTECTION AREA**1.0 Statement of nature and significance of vegetation to be protected**

A large number of trees and shrubs within the Gumnut Seminary Precinct form part of the building's original garden surrounds and are an integral part of its significance. They provide a setting for the visual significance of the building and are a remnant representation of the rural location of the seminary. In addition, several of the trees and plantations in the gardens are of horticultural or genetic value, are rare or of localised distribution or are outstanding examples of their species and are included on the National Trust of Australia's Register of Significant Trees of Victoria.

References:

"Classification Report – Buildings Committee, Gumnut College, Gumnut" National Trust of Australia (Victoria) 1993

"Landscape Report, Gumnut College Complex, Office of Corrections Training Centre, Gumnut Street, Gumnut", Department of Planning and Development 1992

2.0 Vegetation protection objective to be achieved

To conserve the existing pattern of vegetation and landscape quality within the area.

To protect significant trees and shrubs.

To ensure that the trees and shrubs are maintained as a dominant feature of the landscape when the site is viewed from Gumnut Road.

3.0 Permit requirement

A permit is required to remove, destroy or lop any tree or shrub identified as notable trees on the plan attached to this schedule, including dead or dying vegetation

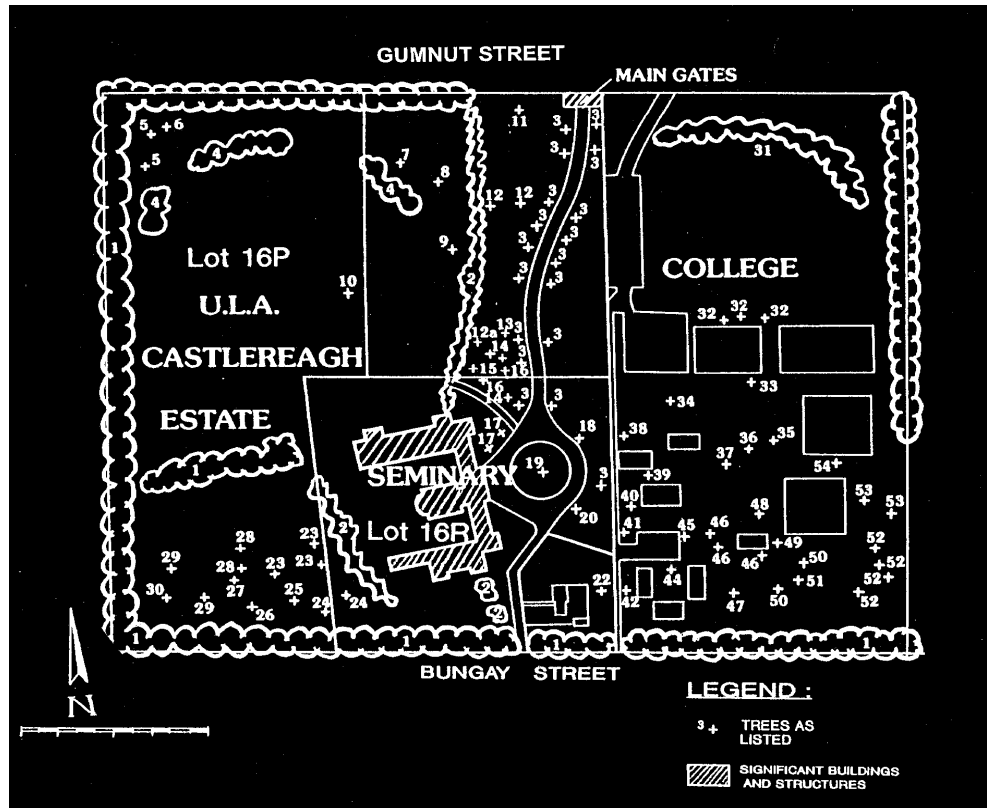
This does not apply to pruning a tree to improve its health or appearance, provided its normal growth habit is not retarded.

4.0 Decision guidelines

Before deciding on an application to remove, destroy or lop any tree or shrub, the responsible authority must consider:

- *Whether the application includes a landscape plan or agreement to replace areas of vegetation on the land.*
- *The "Classification Report – Buildings Committee, Gumnut College, Gumnut" National Trust of Australia (Victoria) 1993 and the "Landscape Report, Gumnut College Complex, Office of Corrections Training Centre, Gumnut Street, Gumnut", Department of Planning and Development 1992".*
- *The value of the vegetation to the visual amenity of the area.*

GUMNUT SEMINARY PRECINCT VEGETATION PLAN 1994



LIST OF TREES

- | | |
|--|---|
| 1. Perimeter and row plantings of <i>Cupressus macrocarpa</i> | 27. <i>Eucalyptus sideroxylon</i> |
| 2. Row plantings of <i>Cupressus torulosa</i> | 28. <i>Eucalyptus leucoxydon</i> x 2 |
| 3. Driveway and associated plantings of <i>Cupressus macrocarpa</i> 'Horizontalis Aurea' | 29. <i>Quercus robur</i> x 2 |
| 4. Broken semicircular planting of <i>Eucalyptus maculata</i> | 30. <i>Eucalyptus citriodora</i> |
| 5. <i>Eucalyptus polyanthemus</i> x 2 | 31. Semicircular planting of <i>Eucalyptus leucoxydon</i> and other eucalypts |
| 6. <i>Eucalyptus maculata</i> | 32. <i>Eucalyptus citriodora</i> x 3 |
| 7. <i>Quercus faginea</i> | 33. <i>Eucalyptus cladocalyx</i> |
| 8. <i>Eucalyptus maculata</i> | 34. <i>Eucalyptus sideroxylon</i> |
| 9. <i>Quercus robur</i> | 35. <i>Eucalyptus botryoides</i> |
| 10. <i>Eucalyptus camaldulensis</i> | 36. <i>Juniperus virginiana</i> |
| 11. <i>Quercus</i> species (possibly <i>Quercus canariensis</i> hybrid) | 37. <i>Eucalyptus leucoxydon</i> |
| 12. <i>Quercus canariensis</i> x 2 | 38. <i>Quercus canariensis</i> |
| 13. <i>Quercus prinus</i> | 39. <i>Cupressus glabra</i> |
| 14. <i>Quercus faginea</i> | 40. <i>Quercus palustris</i> |
| 15. <i>Quercus robur</i> x 2 | 41. <i>Eucalyptus cornuta</i> |
| 16. <i>Eucalyptus citriodora</i> | 42. <i>Eucalyptus melliodora</i> |
| 17. <i>Cupressus glabra</i> 'Hodginsii' x 2. | 44. <i>Eucalyptus maculata</i> |
| 18. <i>Phoenix canariensis</i> x 2 | 45. <i>Eucalyptus calaphyllia</i> |
| 19. <i>Eucalyptus maculata</i> | 46. <i>Eucalyptus polyanthemus</i> x 3 |
| 20. <i>Cedrus deodara</i> | 47. <i>Angophora costata</i> |
| 21. <i>Eucalyptus citriodora</i> | 48. <i>Eucalyptus cladocalyx</i> |
| 22. <i>Juniperus virginiana</i> | 49. <i>Eucalyptus citriodora</i> |
| 23. <i>Eucalyptus viminalis</i> x 3 | 50. <i>Eucalyptus melliodora</i> |
| 24. <i>Calodendron capense</i> x 2 | 51. <i>Angophora costata</i> |
| 25. <i>Eucalyptus cladocalyx</i> | 52. <i>Eucalyptus botryoides</i> x 4 |
| 26. <i>Eucalyptus maculata</i> | 53. <i>Ulmus</i> x ? <i>hollandica</i> |
| | 54. <i>Cupressus sempervirens</i> |

SCHEDULE 2 TO THE ENVIRONMENTAL SIGNIFICANCE OVERLAY

Shown on the planning scheme map as ESO2

GREEN CREEK AND ENVIRONS**1.0 Statement of environmental significance**

Green Creek is an environmental, heritage and recreation corridor which is significant for its role as a continuous corridor as well as for the qualities of individual reaches. All areas of the creek are important because they link areas of environmental, heritage and recreational values along the creek.

*Green Creek and its immediate environs contain some of the most threatened riparian ecosystems in Victoria. They are threatened because of their proximity to densely developed residential areas. The creek has a unique role to play in the preservation of threatened flora and fauna. It contains regionally significant species, including River Swamp – Wallaby Grass (*Amphibromus fluitans*), which is vulnerable to extinction in Victoria.*

References:

“Sites of Ecological Significance in the Green Creek Area”, Greenville Planning Authority, 1992

“The Middle Green Creek Concept Plan”, 1998

“Environmental Weed Invasions in Victoria”, Department of Conservation and Natural Resources and Ecological Horticulture Pty Ltd, 1992

2.0 Environmental objective to be achieved**Natural systems**

- *To restore and revitalise the creek and adjoining open space to a more natural and ecologically diverse environment.*
- *To protect significant threatened species of flora from adverse management practices that may result in their extinction.*
- *To ensure the health and vitality of the natural systems of the creek and its associated open space.*
- *To protect and enhance the diversity, integrity and health of the local native riparian, escarpment and plains vegetation associated with the creek.*
- *To ensure the suitability of the riparian, escarpment and plains vegetation habitat and in-stream habitats for local native animals.*
- *To improve the water quality of the creek.*
- *To provide for the retention, restoration and revegetation of local native species.*

Waterway function

- *To improve flood, regional drainage and waterway function of the creek to enable appropriate beneficial land use and water-based activities to be undertaken.*
- *To provide flood management and water quality protection through works that seek to mimic natural systems and produce a more natural-looking stream form.*

3.0 Permit requirement

Buildings and works

A permit is not required:

To construct a building in a residential zone no more than 6 metres above ground level.

For works undertaken by a public authority or waterway management agency to:

- *Sustain the form and stability of stream beds and banks, regulate or control the flow of water in a watercourse.*
- *Mitigate flooding or construct stream habitat works.*
- *Revegetation works including preparatory works associated with the revegetation.*
- *Construct a bicycle or shared pathway.*

Vegetation

The requirement for a permit to remove, destroy or lop vegetation does not apply to:

- *A tree in a residential zone with a single trunk circumference of less than 0.35 metre at 1 metre above the ground and which is less than 6 metres high or has a branch spread of less than 4 metres.*
- *A non-indigenous tree that adversely affects stream flow.*
- *The control or removal of non-indigenous plants in preparation for revegetation works.*
- *Pruning of plants to maintain access or to maintain a plant's horticultural health.*

4.0 Decision guidelines

Before deciding on an application for a permit the responsible authority must consider as appropriate:

- *“Sites of Ecological Significance in the Green Creek Area”, Greenville Planning Authority, 1992*
- *“The Middle Green Creek Concept Plan”, 1998*
- *The views of the Green Creek Management Committee and Melbourne Water as considered appropriate by the responsible authority.*
- *The effect of the proposed removal of vegetation on the habitat value, wildlife corridor and long term viability of remnant and revegetated areas along the creek corridor.*
- *The significance of the native vegetation area, including the significance of plant communities or animal species supported.*
- *The reasons for removing the vegetation and the practicality of alternative options which do not require the removal of the native vegetation.*
- *The extent to which buildings or works are designed to enhance or promote the environmental values of the creek and the visual character of the creek corridor.*
- *The need to retain vegetation and natural features which contribute to the health and water quality of the creek.*

SCHEDULE 2 TO THE SIGNIFICANT LANDSCAPE OVERLAY

Shown on the planning scheme map as SLO2

GREEN VALLEY LANDSCAPE AREA**Statement of nature and key elements of landscape**

Land adjacent to Green River between Main Road and South Road consists of substantial areas of open space, a golf course, wetlands, vegetation and other natural habitat. The key element of the landscape is the dense vegetation that screens buildings on adjacent land from view. This provides a sense of remoteness for users of the open space along the river.

References:

“Green Corridor Landscape Study”, Green Dale and Wight, March 1989

“Sites of significance for Nature Conservation in the Green Corridor”, T J Biglow, 1989

“Sites of Geological and Geomorphological Significance in the Western Region of Melbourne”, N T Rose, 1986.

1.0 Landscape character objective to be achieved

- *To enhance and encourage the conservation and protection of areas along Green River.*
- *To protect Green River from development that may damage the visual, ecological and recreational values of the river environs.*
- *To protect and enhance the vista from the river, its banks, nearby parklands and prominent scenic points within the valley environs.*
- *To encourage development consistent with the Green River Landscape Study, March 1989.*

2.0 Permit requirement**Buildings and Works**

A permit is not required for:

- *Buildings and works either in a residential zone or on public land, if the buildings or works are in accordance with an approved Development Plan.*
- *Repairs and routine maintenance.*
- *To construct a fence.*

Vegetation

A permit is required to remove, destroy or lop any native vegetation whether dead or alive.

An application must be referred to the Secretary of the Department administering the Flora and Fauna Guarantee Act 1888 in accordance with Section 55 of the Act.

3.0 Decision guidelines

Before deciding on an application, the responsible authority must consider:

- *“Green Corridor Landscape Study”, Green Dale and Wight, 1989*

- *Sites of Geological and Geomorphological Significance in the Western Region of Melbourne*”, N T Rose, 1986.
- *“Sites of significance for Nature Conservation in the Green Corridor”*, T J Biglow, 1989
- *Whether buildings and works have been adequately screened when viewed from the river or its banks.*
- *The need to encourage building design that is in keeping with the character of the area. This includes:*
 - *Whether ridge lines on buildings are parallel with site contours on land with an average slope greater than 1 in 10;*
 - *Ensuring keeping the height of all buildings and structures to a minimum.*