**Contents:**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary:</td>
<td>3</td>
</tr>
<tr>
<td>Purpose:</td>
<td>5</td>
</tr>
<tr>
<td>Introduction:</td>
<td>5</td>
</tr>
<tr>
<td>Council Plan:</td>
<td>5</td>
</tr>
<tr>
<td>Indigo Shire Trees:</td>
<td>5</td>
</tr>
<tr>
<td>Benefits of Trees:</td>
<td>7</td>
</tr>
<tr>
<td>Tree Management Responsibilities:</td>
<td>8</td>
</tr>
<tr>
<td>Tree Management Issues:</td>
<td>8</td>
</tr>
<tr>
<td>Plan Review and Amendment:</td>
<td>10</td>
</tr>
<tr>
<td>1.0 Tree Management:</td>
<td>11</td>
</tr>
<tr>
<td>2.0 Risk Identification and Mitigation:</td>
<td>13</td>
</tr>
<tr>
<td>3.0 Tree Inspections and Assessments:</td>
<td>15</td>
</tr>
<tr>
<td>4.0 Tree Selection and Planting:</td>
<td>17</td>
</tr>
<tr>
<td>5.0 Tree Removal:</td>
<td>23</td>
</tr>
<tr>
<td>6.0 Tree Protection:</td>
<td>27</td>
</tr>
<tr>
<td>7.0 Infrastructure Protection:</td>
<td>29</td>
</tr>
<tr>
<td>8.0 Electric Line Clearance:</td>
<td>31</td>
</tr>
<tr>
<td>9.0 Tree Maintenance:</td>
<td>33</td>
</tr>
<tr>
<td>10.0 Environmental and Community Imperatives:</td>
<td>35</td>
</tr>
<tr>
<td>11.0 Pest and Disease Control:</td>
<td>37</td>
</tr>
<tr>
<td>12.0 Significant Trees:</td>
<td>38</td>
</tr>
<tr>
<td>13.0 Existing Tree Controls and Regulations:</td>
<td>40</td>
</tr>
<tr>
<td>14.0 Definitions:</td>
<td>41</td>
</tr>
</tbody>
</table>
Appendices:

Appendix A: Indigo Shire – Existing Street Tree Themes: 44
Appendix B: Indigo Shire – Proposed Street Tree Themes: 54
Appendix C: Indigo Shire – Tree Removal Procedure 65
Appendix D: Works in the Vicinity of Trees – Guidelines 70
Appendix E (i): Indigo Shire – Significant Trees (Criteria for Selection). 72
(iii): Indigo Shire - Significant Trees (Nomination Form). 73
Appendix F: Indigo Shire – List of Townships & Assets. (Sites) 74
Appendix G: Indigo Shire – Speed Zone Maps 77
Appendix H: Indigo Shire – Roadside Conservation Values: Plan 85
Appendix I: Indigo Shire – Tree Policy Pro-formas 86
  • Tree Maintenance Philosophy 87
  • Tree Inspection Form 88
  • Tree Pruning – Statutory Distances – sample letter 89
  • Street Tree Removal – sample letter 90
  • Guidelines for Street Tree Planting 91
  • Street Tree Planting Request Form 92
  • Tree Planting & Establishment Specifications 93
  • Advanced Tree Details 97
  • Semi Advanced Tree Details 98
  • Cross-over (driveway) Applications – Impact on Trees 99
Appendix J: Indigo Shire – Proposed Tree Planting Strategies for Townships: 100
Appendix K: Indigo Shire – Summary of Nominated Species List: 105
Executive Summary

This Tree Management Plan aims to provide a framework for the management of Indigo Shire street trees.

The approach taken in forming the Plan was to borrow heavily on an existing Tree Management Plan (in this case ‘City of Ballarat Tree Management Plan’ 2007) to provide ready structure and format for the Plan.

The Plan’s origins commenced with meetings between John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Manager Assets) in early 2009. Andrew Patrick (Horticulturist, Open Space Management) was engaged in mid-2009 to document this Tree Management Plan for Indigo Shire. Submissions on the initial draft Plan were invited in February 2010 with the Plan now incorporating many of the requests received from these submissions.

THE IMPORTANCE OF STREET TREES

Indigo Shire has a history of tree planting with treed avenues in many of its older township streets. The conservation and enhancement of high priority historical landscapes, for instance Ford and Loch Streets in Beechworth, is a core value to this Tree Management Plan.

Communities highly value street trees and their contribution to the built environment. It is quality of life and environmental issues that are increasingly on the community’s agenda. It should be noted however that with the many benefits of street trees there is a considerable cost in terms of installation, maintenance, and negative impacts on services and infrastructure by trees.

SELECTION OF SPECIES

The street trees selected for use have been chosen based on:

- a limited number of species which is manageable in terms of total tree number
- existing township and streetscape character and themes
- tolerance of changing environmental conditions and reasonable in terms of maintenance requirements and risk.

STREET TREE THEMES

The key areas in Indigo townships have been divided into street tree theme areas. The theme areas are based on:

- preserving historical landscapes and the existing tree species
- allowing tree themes based on ‘like’ trees for re-planting of historically less important ageing elm tree landscapes (elms are subject to disease and have high maintenance costs)
• creation or enhancement of single tree variety avenue streetscapes to provide sense of place
• providing tree variety emphasis based on township character and tree suitability to location.

RECOMMENDATIONS

1. Council to:
• undertake new and replacement plantings in accordance with the plan and within Council’s budget constraints whilst continuing to manage risk associated with its trees
• undertake a full tree assessment of street, park and reserve trees that Council is directly responsible for by 2013-14
• use the procedures for tree removal, works in the vicinity of trees, plantings and inspections as outlined in the plan
• consider the plan in the assessment of new subdivisions and developments as a guideline for influencing the nature and form of the development.

2. Council seeks to:
• source appropriate grant funding in line with the strategic and replacement tree themes outlined in the plan inclusive of undergrounding of overhead electrical supply lines to enhance existing streetscapes
• develop a register of significant Shire trees through the input from the community
• formulate agreements with other authorities to minimise conflict between trees and infrastructure
• develop a program of powerline relocation projects for future consideration and consider powerline assessment when reviewing the scope of new capital works
• regularly review and amend the Tree Management Plan to continuously improve the Plan.
Purpose

The purpose of this Tree Management Plan is to:

- Acknowledge the important role that trees play within Indigo Shire townships.
- Provide a framework for the protection and enhancement of street, roadside and parkland, trees within Indigo Shire.
- Provide a clear and consistent approach to the way Indigo Shire manages tree issues
- Assist Indigo Shire in determining priorities for tree maintenance programs, removal and replanting and associated works including planning / development issues.

The Tree Management Plan will provide principles and a policy framework for how Indigo Shire addresses:
- Tree Management
- Tree Risk Identification and Mitigation
- Tree Inspections and Assessments
- Tree Selection and Tree Planting
- Tree Removal
- Tree Replacement
- Tree Protection
- Significant Trees
- Infrastructure protection
- Electric Power-line clearance (SP AusNet)
- Tree Maintenance
- Pests & Disease control.

Introduction

This Tree Management Plan aims to provide a strategic framework for the management of Indigo Shire’s urban tree assets.

Council Plan

The Council Plan outlines the vision and strategies set by Indigo Shire Council and is the result of extensive public consultation with integration of this information into a 4 year plan Indigo Shire’s Council Plan 2009-2012 includes the following objective in terms of tree management: “Managing our Built Environment” – Objective 2.6: Maintain and Enhance our Parks, Gardens and Open Spaces: review long-term suitability of Councils current Parks & Gardens plantings & Species – Adopt and Implement a Tree Management Strategy.

Indigo Shire Trees

The Indigo Shire has responsibility for a very wide diversity (in terms of species, age, size and density) of trees in the public domain. The Indigo Shire and the ‘North East’ has a very
distinctive character; the township streets are very wide and lined in many cases with large deciduous trees. The Townships and precincts contain a broad mix of native and exotic trees with peculiarly defined post-war planting themes. There are also the newly developed estate areas found in various Townships which are often sparsely treed at this stage.

It is the main Townships of:

*Barnawartha
*Beechworth
*Chiltern
*Kiewa
*Rutherglen
*Stanley
*Tangamalanga
*Wahgunyah
*Yackandandah

... with their connecting country roads over large areas of rural farmland and remnant native bush that gives Indigo Shire its unique character.

It is not only Indigo Shire’s historic buildings and wide street spaces that are valued but also its significant roadsides, avenues of trees and substantial attractive trees in private gardens, Council parks and reserves. This uniqueness has its origins in the Victorian period with the majority of these trees planted in the late 1800’s to early 1900’s. The formal avenues of older exotic street trees create intimate spaces where the canopies spread across the street and road space.

Management of the tree asset through most of the 20th century was generally detrimental to the long-term health and structure of the street trees.

Outside the Shire townships the Tree-scape is generally remnant native bush but in places there are significant avenues of exotic trees where least expected, some of these being commemorative icons; the majority of township streets having finite planting themes in the post-war idiom. In the new estates there are substantial areas with fewer and less developed trees and these lack much of the character of the treed areas. Many of the trees that do exist are not always suitable species for the location and have been affected by overhead powerline clearance pruning, inconsiderate and inappropriate construction works or poor species selection. In some instances trees have been decimated by natural disaster such as fire or extreme storm incidents; a reality and maintenance consideration for the North East.

Indigenous trees that have been retained in areas such as Stanley, for example, form the dominant landscape theme; planting in these areas is ‘as-it-is’ or quite informal. Other areas such as the main townships and various sites like Latrobe University (May Day Hills), Caravan Parks, Churches, Schools, Swimming Pools, Memorial Parks, Show Grounds and other Heritage Building sites, have evolved through deliberate planting and design. It is the combination of public, private and institutional trees that create the ambience associated with these townships.

The trees within the Shire’s townships are under ever increasing pressure from infrastructure, development and a prolonged 13 year drought cycle with national climate change issues.
The Shire contains some unusual, important and significant trees listed with the National Trust of Australia (Victoria). These trees exist within the public spaces and gardens, major parks and some private residences or schools. There are also other significant trees that are not listed with the National Trust or others existing in Crown Land and Private property.

Early tree planting was not just limited to public areas. Trees on private property, both urban and rural, contribute significantly to local character.

Elm, Oak, Plane, Pine and Ash trees are the dominant species in the streets. Elms (Ulmus sp.) mostly Dutch Elm (*U. x hollandica*) and English Elm (*U. procera*) make up a large proportion of the existing street and parkland trees. These Elms represent one of the best collections of (relatively) disease free elms left in the world.

There is a strong history of community tree planting in Indigo Shire. Some examples include Lake Sambell, Lake Anderson, Queen Victoria Park, Beechworth Town Hall Gardens, Beechworth Cemetery and street avenues. These sites were originally planted by previous authorities, council, private endeavour or volunteer community groups and these efforts still continue today.

The main urbanised areas of the Indigo Shire contain a significant number of trees in public areas. There is capacity however in some cases to accommodate additional street trees.

A significant amount of data on Council’s trees has been collected and recorded in the past but completing and maintaining this up to date is required for prioritizing works and protecting and enhancing treescapes.

Within Indigo Shire there are also many roadsides containing significant remnant native vegetation. Often this vegetation is all that remains of the original vegetation due to clearing for agriculture and other land uses. These plant communities are very important to maintain local flora and fauna biodiversity with many sites designated within Council’s Roadside Management Plan.

**Benefits of Trees**

Trees are an essential part of the urban and rural fabric, providing significant economic, social and ecological benefits.

Trees:
- provide a pleasant softening effect to the built urban infrastructure.
- have a calming and therapeutic influence on the human psyche.
- provide perspectives in scale creating more desirable spaces for movement and recreation.
- trap carbon and produce oxygen.
- ameliorate the extremes of noise, wind, sunlight, temperature and air pollution.
- assist in creating a unique identity and structure to town and rural precincts.
- provide the opportunity to establish regional presence and a distinct neighbourhood character.
- can highlight features, provide sculptural effects or screen unwanted views.
• provide habitat and food for native wildlife and other animals.
• form corridors for movement and refuges for native wildlife
• reduce the impacts of rainfall and run-off and reduce erosion.

Tree Management Responsibilities

The tree management responsibilities defined within this document are applicable only to those areas directly under the control of the Indigo Shire Council. It is often difficult to define where the various boundaries of responsibility begin and end as there are many other Responsible Authorities, including private property owners and committees of management.

Tree Management Issues

The costs, financial and social, of not managing trees correctly can be high. Trees, just like other infrastructure, need to be managed to maximise their benefits and minimise any adverse effects and cost. Assets such as trees do not behave evenly over their life and are prone to many factors outside the control of the tree owner/steward such as drought, weather, disease and ageing.

Trees take many years to develop to maturity and provide maximum benefits to the community and the local ecology. They cannot be quickly replaced. The retention and protection of mature trees in particular is vital especially in an expanding and ever changing urban/rural environment. Trees in rural areas are subject to different pressures but are also subject to ongoing threats.

It is becoming increasingly evident that climate change is a reality. Trees will have to endure whatever climatic changes occur in their life-time. Given that trees may live for a period of up to one hundred years or more, pre-empting possible changes is important. Climate variability has been recorded for 150 years. Reviewing the species that were planted locally and their performance over time provides useful data on which to evaluate the future use of these species or alternate similar species.

Any tree asset comes with a level of inherent risk. Identifying and managing (minimising) that risk is essential. In urban environments in particular, people, buildings and other infrastructure will be in close proximity to trees. In public areas containing trees Council, and some other authorities, have a duty of care to provide all residents and visitors with a safe environment. The potential for ongoing conflict of trees with persons and property is magnified as populations grow and ageing trees decline.

Insurance companies require a certain standard for identifying all trees and their hazards, recording information and developing tree management strategies, plans and maintenance programs. The cost to Council of not correctly managing their various assets can be significant. Insurance premiums (which are based on the quality of management) and legal duty of care responsibilities have the potential to impact significantly on the finances of Council.

Many tree management practices of the past were poorly considered and based on short-term goals. Arboriculture as a science has progressed significantly over the last twenty years and there is now a greater understanding of items such as tree physiology, branch structure, wounding response, and root-growth characteristics.
You cannot manage an asset effectively if you do not have detailed information on the asset. An inventory of all trees (Data-base) that includes their location, species, condition, size and surrounding environment provides the basis for making qualified and informed decisions. It is essential to be able to interrogate and update this data.

Controlling the diversity in age and species is very important in creating a “sustained amenity” approach. Analysis of the make up of the tree population is now much easier using computer software but does rely on regular and timely updating of the information. The effectiveness of decision-making can be determined relatively quickly by tracking any changes in the asset as a whole.

Trees create very emotive feelings in residents and can often polarise the community. The two main divides are those who wish to “Retain” versus “Remove” trees and preferences for “Native” versus “Exotic” trees. Unlike most residents, trees are not transitory and should not be subject solely to the preferences of the residents or individuals of the time. Decisions made today are going to determine the treescape and quality of the Urban, Parkland, Rural and roadside environment for several generations to come. Procedures for considering residents’ views, explaining management rationale, and minimizing any conflicts are essential in managing the tree asset.

A programmed approach to managing an asset is essential. Residents expect a professional level of response to tree problems or requests. Weather and vehicle accidents for example can also create a need for unplanned tree works. The conflict between Programmed and Reactionary Maintenance will always be present and needs to be managed carefully when the level of resources is limited.

Risk Mitigation or Hazard Abatement should be the determining factor in balancing Programmed versus Reactionary works. Powerlines Works, Infrastructure development, Disease, Climate and a combined desire for rational uniformity consistently challenge managers in trying to achieve an effective, valued landscape with the resources they have.

**Urban Trees (Street and Parkland within the 80 and 60/50 KPH Zones)**

Trees and infrastructure conflict with each other in the urban environment. Enhancing the benefits of trees whilst minimising the disadvantages is a challenge. Choosing the right species for the right location or creating the right location and/or environment for the desired species is key. There is now a much wider variety of ornamental and native tree species to select from that are tolerant of or predictable in, harsh urban conditions. Providing sufficient space for and raising public awareness of the benefits of large trees is also important - more and larger trees for the future are desirable but the consequences are also greater.

**Roadside Trees (Between the 80 or 100 KPH Zones)**

These are trees within what are largely rural roads; between the 80 or 100 KPH Zones. Many of these trees are part of important wildlife corridors and may often be the only remnant or
indigenous vegetation left in the area. They may also provide valuable shelter for adjacent cropping and animal production.

There are conflicting management issues along roadsides that are heavily vegetated. Roadside fuel issues and the threat of fire, access for vehicles such as agricultural machinery, fire trucks and graders plus locating services such as water, gas and electricity are limited if natural values are to be preserved.

Similar to the limited space for trees in urban areas the roadsides are often the only places left with sufficient room for large trees and are coming under increasing threat.

Roadsides around Indigo Shire include indigenous trees with some substantial stands of exotic trees in the form of coniferous windbreaks, Broad-leaf exotic avenues and hedgerows. Many of these trees were planted by property owners who may have previously managed the roadsides as if they were part of their own land. Some of these trees are protected under State Legislation and managed jointly by DSE, Council and others.

Plan Review and Amendment

The Tree Management Plan is open to the process of continuous review and improvement. This Plan is not a closed document but will require regular review and amendment to:

- Respond to community requirements.
- Maintain relevancy and applicability in a changing environment.
- Cater to local environments and existing circumstances of tree plantings.
1.0 Tree Management

Principles

Trees provide net benefits to communities and form an essential part of existing and newly developed areas. Indigo Shire has a significant tree legacy and Council has a responsibility to preserve and enhance that legacy. The promotion of the benefits of public and private trees and correct maintenance and protection practices can create a greater appreciation of and pride in the Shire’s tree heritage.

Public trees can however conflict with other essential infrastructure. General infrastructure management must serve to minimise these conflicts without serious detriment to the tree assets. Trees are just one component within a network of assets that Council has management responsibility for.

Trees are vulnerable and need a high degree of monitoring and protection to ensure their survival and development. Many activities or works can significantly affect the condition of the public tree asset. All works within or adjacent to public land needs to be properly planned and implemented to avoid or minimize any detrimental impacts on public trees.

Plans and procedures for trees should be reviewed regularly to ensure they remain effective and current. Trees potentially live for many generations and their environment, peoples’ attitudes and management practices can change significantly over their life span.

Policy (Tree Management)

1.1 Public areas including streets, parklands, roadsides and carparks to be planted with trees consistent with adopted masterplans and policies.

1.2 A register of trees significant to Indigo Shire and relevant protective management procedures be developed over time.

1.3 Council promote professional tree care practices where appropriate amongst the local community and contractors (relevant to various benchmarks including the Australian Standard for the ‘Pruning of Amenity Trees’ AS 4373 1996/07).

1.4 All development projects incorporate planting of new trees where appropriate in conformance with section 4.0 “Tree Selection and Planting”.

1.5 All works in the vicinity of existing trees within development projects incorporate protection of trees in conformance with section 6.0 “Tree Protection” (also refer Australian Standard AS 4970 2009 – Protection of Trees on Development Sites)
1.6 Indigo Shire seeks to provide adequate maintenance funding and pursue appropriate grant funding opportunities to ensure its tree population remain healthy and in a safe condition.

1.7 Council seeks to liaise with other authorities involved in public land to formulate agreements that minimise the conflicts between Council trees and other infrastructure and ensures compliance with the Road Management Act (2004).

1.8 Council’s tree maintenance works are focused on and prioritised towards tree protection and risk mitigation.

1.9 Tree issues and information are incorporated into a tree asset database and management system.

1.10 This Tree Management Plan, including all supporting procedures and lists, be subject to periodical review and continuous improvement.

**Related Documents**
Road Management Act (2004)
Indigo Shire Road Management Plan
Victorian Native Vegetation Framework (DSE)
Indigo Shire Roadside Management Plan
AS 4970 2009 – Protection of Trees on Development Sites
2.0 Risk Identification and Mitigation

Principles

Trees have an inherent risk that must be managed effectively. A formal risk assessment of all situations where trees exist needs to be undertaken to accurately identify the risks, determine appropriate actions and assign priorities.

The risk associated with trees is a combination of the condition of the tree and the use around and in the vicinity of the tree. Council has a duty of care to reduce the level of risk to the public and potential financial burden on ratepayers.

Risk assessment/potential should be the overriding factor in determining priority for works and allocating resources. Risks include Hazardous Trees, Deadwood and falling fruit (such as Bunya Bunya Pines), Sight Distance issues and Powerlines clearance. The Australian Standard, Risk Management (AS/NZS 4360:2004) provides a sound methodology for managing risk.

Works by other sections of Council and external contractors and land-owners can have a significant impact on the risk potential of Council trees. Control over or awareness of works in the vicinity of Council trees is necessary to ensure risk minimization.

Policy (Risk Identification and Mitigation)

2.1 A formal risk assessment program in general conformity with the process set out in AS/NZS 4360:2004 be undertaken on the tree asset group.

2.2 Tree management practices and procedures adopt the general approach as laid out in AS/NZS 4360:2004.

2.3 Tree inspections be undertaken every 4 years with annual programs of tree maintenance works to be developed and documented based on the priorities identified in Council’s tree risk assessment.

2.4 All Council tree incidents, actions and works be documented and incorporated within Council’s information systems (this may include the induction of relevant field or maintenance staff and contractors in the identification of Hazard Tree issues).

2.5 A standard “Tree Incident Report” be developed and adopted, and tree incidents be documented and referred to Council’s Manager Civil Operations as soon as is practical.
2.6 Council’s Manager Civil Operations review all tree incidents and document proposed actions.

2.7 Tree risk management issues and information are incorporated into a tree asset database and management system.

2.8 All works and events likely to impact on, or be affected by, Council trees, be referred to Council’s Manager Civil Operations and / or Sustainable Communities department at the planning stage.

2.9 The degree of use and nature of the use be a major consideration in determining the location and species of trees to be planted.

Related Documents
Risk Management AS/NZS 4360:2004
3.0 Tree Inspections and Assessments

Principles

Council has responsibility for trees in most of its streets, parklands and roadsides and also in public facilities such as Council Buildings, Swimming Pools and Community Halls. It is important that these trees are identified and assessed.

Council trees need to be inspected and assessed to determine their potential for public risk. Trees in “High Risk or High Use” areas and “Significant Trees” may require more frequent and / or detailed inspections. Inspections and risk assessments require standardised and documented procedures. Inspections should be undertaken by appropriately qualified and experienced people. This may involve Council use of external expertise and / or include education of Council personnel in appropriate Hazard Tree Assessment procedures.

An up-to-date computerised tree inventory system is required for effective tree management decision making and programming of works. Review of Council’s tree inventory, inspection and works data should be undertaken regularly to review and adjust priorities.

Policy (Tree Inspections and Assessments)

3.1 A four yearly program of tree inspections in streets, parklands, roadsides and other facilities be developed to satisfy Council’s risk management responsibilities and protection of assets.

3.2 A “Tree Inspection Procedure” be developed and used to inspect all Council trees.

3.3 All trees that are to come under the control of Council are to be assessed by appropriately trained personnel for their suitability for retention and to identify any Remedial Works required to bring them up to a good and safe condition.

3.4 Council develop and maintain an up-to-date inventory of street, facility and parkland trees under its responsibility and seek to develop this inventory to include relevant road-side and significant trees over time

3.5 The Indigo Shire tree inventory include the following data for each tree:
   o Inspected by.
   o Date inspected.
   o Species.
   o Location.
   o Ownership.
   o Health.
   o Structure.
- Age.
- Size.
- Risk category.
- Type of works undertaken.
- Date works completed.
- Works completed by, and
- Works priority.

**Related Documents**

Road Management Act (2004)
Indigo Shire Road Management Plan
4.0 Tree Selection and Planting

Principles

General

Street, parkland and roadside tree planting is best done in a programmed and sustainable manner. This approach is sound both environmentally and economically. It is also necessary to pre-plan what tree stock will be needed to be assured of obtaining the right species, good quality stock and at the right time.

A “Sustained Amenity” approach (also known as Urban Forestry) to provide a balanced diversity of tree ages and sizes should be followed to achieve long term stability of the tree population and landscape character. This approach must be balanced to achieve realistic outcomes within available budgets and resources.

The right mix of species and age diversity are vital components of a sustainable tree population. A general methodology for achieving this is for no particular Genera to make up a predominant percentage of the whole tree population. The age of trees should also be spread evenly across the Shire between young and old trees to lessen the impact of or need, to remove whole areas of trees. A sensible approach with an integrated township application is desirable.

Priority for tree planting should be given to:

- Areas with a lack of trees.
- Areas where residents or community groups have requested trees and are prepared to be involved in tree establishment and after-planting care.
- High profile and high use areas.
- Areas where there are high percentages of old aged trees, low species diversity and/or trees in poor condition.
- Sites where trees have been removed.
- New developments.

When selecting tree species for street, parkland, rural and roadside tree planting the following factors must be considered:

- Preferred “Landscape Character”.
- Adopted masterplans, strategies, planning overlays and development plans
- The significance of previous history of tree planting.
- Drought tolerance/ water usage.
- Growth habit, size and structural integrity.
- Tolerance to harsh urban or structural environments.
- Soil type.
- Root growth characteristics and tolerances.
- Pruning requirements.
- Amount and type of organic debris shed.
- Proximity and form of surrounding existing and future infrastructure.
- Solar radiation/orientation.
- Pests & Disease susceptibility or tolerance.
- Existing and future use of the surrounding area.
- Environmental and Habitat value.
- Possible poisonous or health effects.
- Weed potential.
- Existing and likely future adjacent land use.

New tree planting should reinforce the existing character themes of areas. Character areas may have been defined through various mechanisms that include Heritage or other Planning Overlays. They might consist of character types including *Exotic; *Mixed (exotic and native); and *Native (preferably indigenous).

Tree planting in Indigo Shire has a long history and it may be culturally important to reinforce and/or replicate these early plantings in some streets or areas. Council must be consulted and give approval/ for any tree planting within streets, parklands and roadsides it controls or will take control of as Council ultimately becomes responsible for tree planting strategy, tree maintenance and any issues arising.

Only high quality tree stock should be used and planted correctly as substandard trees or planting can increase maintenance costs significantly and conversely good quality stock and planting techniques dramatically increases establishment rates and the community’s appreciation of trees.

Street, parkland and roadside tree numbers generally increase over time and maintenance costs will increase correspondingly. Correct species selection and planting technique, use of good quality stock and follow-up maintenance (e.g. weed control, formative pruning etc.) in the establishment phase can dramatically reduce maintenance costs and problems in the long term.

Large growing trees provide maximum landscape and environmental benefits and create the greatest visual impact. The ability to maintain or establish large growing species is becoming limited on both private and public land.

Tree planting by developers and others in land that will become the responsibility of Council must be done in consultation with and to the satisfaction of Council to ensure compliance with the principles listed above.

**Street Trees**

All streets should be planted with trees where space is available. Uniform tree planting within a street or block, in terms of species, age and spacing, provides the most appropriate planting within the central and older urban areas (*Exotic and *Mixed areas). Residents have very different opinions on their preferred species of tree and it is not practical to attempt to satisfy every resident with personal tree preferences.
Trees should generally be centred on each building lot and planted opposite one another. The planting of deciduous trees, rather than evergreen, should be considered in east-west street to allow solar access and summer shade for north facing houses.

Planting in streets should be confined to trees only, not shrubs, to be able to satisfy clearance or set-back requirements. Generally speaking trees should be selected and maintained to provide a clear single trunk (Excurrent Form) for approximately two metres. Multi-stemmed (Decurrent or Deliquescent Form) trees are also viable in the appropriate context.

The location of and selection of street trees needs to take into account possible affect on all other infrastructure and services. It may not be possible to eliminate all conflicts between infrastructure within the street, road or parkland.

Locations of street trees in the older areas e.g. in the roadshoulder, is not always the best location for optimum growth but maintaining the historic fabric in these areas is very important. It will be critical to use specific planting techniques, establishment and maintenance practices that will maximise growth in these areas.

Street trees provide many benefits and establish much quicker and grow faster when residents take responsibility for their care in the early stages. Residents should be encouraged to be involved in planting and maintaining new trees e.g. by watering, mulch (not weed clippings), weed control etc.

Selection of tree species should take advantage of the wide range now available. A diversity of species spread across the Shire has multiple benefits e.g. disease tolerance, visual and seasonal variation, lower maintenance and habitat creation and diversity.

New or replacement street trees should be an integral component of any new development or subdivision site. Council and developers need to work together to determine the appropriate tree planting and implementation programs. Generally tree planting should be done at the earliest practical stage of any project/development to get the maximum benefit.

**Parkland trees**

Parkland tree planting should not take place without proper consideration and consultation with Heritage Overlays, user groups; for major parks and reserves this ideally should be in the form of a site-specific Masterplan. Existing Masterplans`, historic evidence and various precedents or existing management plans are to be used to guide tree planting, species selection, locations and priorities.

Parklands should contain large growing trees as large trees provide the most environmental and cultural benefits. Parks are one of the few spaces within urban environments where there is sufficient space to grow large trees to offer cultural, historic, botanic and local amenity whilst minimising conflicts with other infrastructure.
Tree planting in parklands is becoming more important to ameliorate affects of climate change e.g. increased temperatures and solar radiation. Provision of adequate shaded areas in high use areas should be a priority. Tree planting in parklands is also important to maintain, uphold and promote botanical, historical and cultural diversity.

**Roadside Trees**

Roadside trees (other than street trees) are not incorporated as a part of this Tree Management Plan. Indigo Shires Roadside Management Plan is relevant to the issues surrounding general roadside tree and their management.

Generally any roadside planting should reflect the surrounding character in terms of vegetation type, or restore the indigenous native or local vegetation type as it was prior to European settlement. Promoting natural regeneration should be a major consideration rather than undertaking additional planting of trees. Weed control and limiting disturbance in these areas will be required.

Replacement of coniferous plantings needs to be carefully considered as many existing plantations are at the end of their useful life and need to be removed in the near future. They can be high maintenance, may be difficult to establish in the current regime of climate change and provide limited environmental benefits when compared to other types of plantings. They do, however, form an important historic and botanical element in some areas.

Some exotic species such as Elms, Poplars, Ash, Hawthorns, Willows or others that were once popular may not be considered suitable anymore. They tend to have a high weed potential and may no longer be suited to warmer drier climates. There are other exotic species that could be considered that are adapted better to changing conditions. Areas adjacent to bushland and watercourses should generally be planted with indigenous species.

**Policy** (Tree Selection and Planting)

4.1 Annual tree planting programs be developed and undertaken for Street Trees in Indigo Shire’s Townships.

4.2 Annual street tree planting programs for specific areas include sufficient numbers of trees to achieve over time:
   - Trees needed to make up the shortfall in desired total numbers
   - Replacements for every tree removed or existing number of trees divided by estimated lifecycle (whichever is greater).
   - An extra 10 percent to allow for expected losses from vandalism and natural attrition.

4.3 All Indigo Shire tree selection and planting programs conform with the “Tree Selection and Planting” principles.
4.4 The type of street, parkland and roadside trees to be planted generally conform to the “Proposed Tree Planting Strategy for Townships” (refer Appendix)

4.5 No more than two different species generally to be used in any one street, or specific and definable sections of the street, within the “Exotic” and “Mixed” areas.

4.6 For the overall urban Council tree population: aim to have any one genera limited to no more than 30% and have an even spread of “age” classifications. One general exception to this policy is the genus *Eucalyptus* owing to their natural dominance in the area.

4.7 A “Tree Planting Procedure” or “Standard Guidelines for Tree Planting” be developed and implemented with trees to be planted in conformance with this procedure.

4.8 A method for consulting with residents and property owners that are immediately affected by Council tree plantings and any service authorities that may be affected be developed and included within Council’s “Tree Planting Procedure” or “Standard Guidelines for Tree Planting”.

4.9 All roads, street and carpark designs include capacity for tree planting whilst minimizing conflicts with other infrastructure to the satisfaction of Council. (See ‘Standard Guidelines for Tree Planting’ Pro-Forma.)

4.10 The species selected for planting should have as large a mature size as possible within the constraints of the site to create a definite visual impact on the site and provide for the necessary physical clearances.

4.11 All new development sites incorporate new tree planting within the adjoining street frontages and any open space areas where appropriate to the approval of Council. The provision of tree planting and establishment, for a minimum period of two years, to be at the developers cost;

4.12 Any person or organisation wishing to plant trees, shrubs, herbaceous plants, or undertake any landscaping within a road reserve, park or other land under the control of Council must have permission in writing from Council.

4.13 Any trees or shrubs planted without Council permission and not in conformance with section ‘4.0 Tree Selection and Planting’ or ‘Guidelines for Tree Planting’ (refer Appendix I) principles and policies will be removed in accordance with Council’s Tree Removal Procedure (see Appendix ).

4.14 All tree planting within a VicRoads controlled road to be undertaken after consultation with VicRoads and as far as is practicable comply with their planting procedures and the Road Management Act 2004.
Related Documents.
Lake Sambell Masterplan
Indigo Shire Roadside Management Plan
Victorian Native Vegetation Framework (DSE)
Queen Victoria Park Masterplan
Government Buildings / Town Hall Gardens Masterplan
5.0 Tree Removal

Trees can take many years to develop fully and once removed cannot be quickly replaced. Urban trees are organisms with a finite life-span; they grow in an environment frequently less favourable than needed, subject to numerous forms of damage, and can become a hazard. Removal of trees will therefore be a regular and necessary activity for Council and especially as tree assets age.

Removal of any tree has the potential to create a great deal of conflict as trees often instil very emotive feelings, both for and against removal. Tree removal decisions must therefore be done systematically and with due consideration of all factors and with an appropriate level of consultation.

Principles

General

All state and local planning requirements controlling the removal of trees must be adhered to. The following policies will be in addition to those requirements.

Removal of problem trees, reducing nuisance and costly public liability situations will be an ongoing responsibility of Council. Analysis of suitable street, parkland and roadside trees for Indigo Shire and ongoing assessment of the health and structure of existing trees must be undertaken to identify priorities for tree removal.

All Council tree removals should involve consultation with affected parties. Tree removal often causes serious differences of opinion. It is appropriate to assume residents and community members will have, to varying degrees, some emotional and/or physical attachment to adjacent trees. Prior consultation and involvement in the decision making process generally minimizes concern and provides for good tree management.

Council trees can become an “Immediate Risk” to Persons and/or Property and, simply cannot wait until a consultation process is undertaken. In these situations a detailed record of the status of the tree should be made with information forwarded to Council’s Manager Civil Operations for action. The recorded information may be also provided to adjacent residents upon request.

Trees are living organisms and have a finite life so removal is inevitable. In an urban environment the location and/or use in the vicinity of a tree is a significant determining factor in the timing of the removal. Any trees removed should be replaced as a matter of principle if the opportunity exists in order to maintain the sustainability of the overall tree asset. Any decision to remove a tree should be based on the best long-term outcome for the treed landscape and the community as a whole. Removal of trees for relatively minor matters only (e.g. leaf/litter drop or personal dislikes) should not occur.
Trees contained within the proposed “Indigo Shire’s Significant Tree Register” – a register to be developed over time - are worthy of wider consideration and consultation before any final decision to remove them is made. Many residents and visitors in Indigo Shire have strong personal attachment to and important historical information on local trees. It is important to identify these trees and collate the information to ensure these trees are not removed without due consideration.

Council trees will often need to be removed for reasons that are not visibly apparent to the general public (e.g. healthy, full-canopied trees that are in danger of splitting apart). A planning permit is not generally required to remove dead or hazardous trees. Education and involvement of residents should assist greatly in overcoming perceived poor tree management and decision-making.

Any person or organisation wanting to remove a street, parkland or roadside tree has a responsibility to obtain permission from Council as the managing authority of the road reserve or open space. Some other authorities can become involved in removing Council trees. Goulburn Murray Water and North East Water for example have the power under the Water Act to remove trees interfering with their assets. SP AusNet and Vic Roads also have legislative and statutory interest in these trees.

Where Council trees have been removed, or require to be removed due to vandalism, poisoning or wilful damage done without first receiving permission in writing from Council, the offending party should be responsible for the full cost of removing and replacing the tree and reasonable compensation for the loss of amenity to the neighbourhood. The monetary value of the tree/s should be payable in these instances.

The removal of trees, shrubs or landscaping that have been planted or installed in streets, parklands or roadsides without Council permission would normally be at the cost of the person who planted or installed them.

**Street Trees**

Removal of a street tree can impact on more than just the adjacent resident so it is important to consult with a selection of persons likely to be affected. Where a formal petition to remove a tree or trees is presented to Council then a report to Council may be appropriate.

Any trees not conforming with proposed street tree planting themes or that are categorised as being “Hazardous” or in either “Poor Health” or “Poor Structure” (in accordance with the Indigo Shire’s “Tree Inspection Procedure”) may be removed at the discretion of the Manager Civil Operations. Reporting and documentation protocols are to be followed in these cases.

**Parkland Trees**

Some of the major parks and gardens in Indigo Shire have had Management Plans developed in consultation with user groups, committees of management and the wider
community. Tree removals in these parks should follow the recommendations in adopted masterplans or strategies. User groups should be generally consulted through the relevant committee of management.

Council’s neighbourhood parklands contain large numbers and many sizeable and significant trees. Their removal can affect many people and often there are no identifiable user groups to consult with. Documentation is important to substantiate decisions on removal that may be made.

**Roadside Trees – within the defined Speed Zones**

Many roadsides contain significant areas of remnant indigenous vegetation and trees. These are protected under a variety of state and local regulations or laws, including the Indigo Shire Planning Scheme. Except for trees that are Hazardous or an “immediate risk” a planning permit may be required before they can be removed.

In some rural areas of the Shire there are roadside trees with a high cultural and heritage value e.g. Avenues of Honour. Other stands of trees (e.g. Pine and Cypress windbreaks), although they may not be desirable in the long term, contribute significantly to the rural character. Removal of these trees needs to be properly considered and are normally outside the responsibility of Council.

Any removal or a change of vegetation within a roadside can cause detriment or benefit to the adjacent land use i.e. farming and shelter. Consultation with adjacent landowners may be often necessary.

**Policy (Tree Removal)**

**5.1** Consideration for and consultation regarding removal of street and parkland trees will be in accordance with Council’s “Tree Removal Procedure” (see Appendix).

**5.2** Council’s Manager Civil Operations or delegated Supervisor has the delegated authority to remove any street, parkland or roadside tree:

- Assessed as being Hazardous or an “Immediate Risk.”
- Assessed as being “Dead” or in “Poor” health and/or structure.
- Where its removal is essential for the construction of an approved development.
- Not in accord with the preferred species for that street.
- Not in accord with “Standard Guidelines for Tree Planting”.
- Recommended for removal in an adopted Masterplan.

**5.3** All trees removed are to be replaced as soon as is practical unless otherwise directed by the relevant General Manager.
5.4 Council will not remove a tree or undertake any formal removal consideration process based purely on the following reasons:

- Falling leaves, bark, twigs, fruit or flowers.
- Failure to establish grass under the tree
- Obscuring vistas.
- Perceived aesthetic concerns.

5.5 The removal and replacement of street, parkland and roadside trees to facilitate private development works including driveways and service connections, is to be at the cost of the requestor unless otherwise determined by the Operations Manager or with the exception of trees that meet the criteria in policy 5.2.

5.6 A recognised method for determining the monetary value of amenity trees be adopted and used as required to determine an appropriate level of compensation for trees removed without written permission from Council or that require to be removed due to poisoning or damage not approved by Council. ‘The VCAH Burnley Method’ (Melbourne) for the Evaluation of Amenity Trees is a generally well-accepted method for determining monetary value.

5.7 No person is allowed to remove any tree on land owned or managed by Council without written permission from Council. The contractor or person performing the works must also be approved in writing. Tree removal on Council land is only to be done by people with appropriate qualifications, experience and insurances.

5.8 A program of removal of “unsuitable species” in streets, parklands and roadsides to be developed over time.

5.9 Any trees/shrubs planted without Council permission and not in conformance with section 4.0 “Tree Selection and Planting” principles and policies may be removed in accordance with Council’s Tree Removal Procedure (see Appendix).

5.10 The removal of non-approved landscaping on Council land and any necessary reinstatement is to be at the cost of the person/s who undertook or arranged such landscaping.

Related Documents
Lake Sambell Masterplan
Indigo Shire Roadside Management Plan
6.0 Tree Protection

Principles

Trees and infrastructure are essential items in a modern environment.

Trees are regularly subject to damage from civil works. When civil works are proposed in the vicinity of trees an assessment and works plan is necessary to ensure tree damage is avoided or minimized. There are various guidelines for determining what can be classed as in the “vicinity” of a tree - age, size and/or vigour of the tree is usually the determining factor. For example, guidelines to avoid unacceptable root damage may include “exclusion zones” equal to a radius 12 times the trunk diameter or the area contained within the “Dripline” of the tree.

Significant trees, older trees or larger trees need the greatest protection owing to the potential for a major public risk event and / or property damage.

Incentives for protecting trees and also penalties may need to be put in place to ensure that trees do not get damaged. The payment of Bonds prior to works commencing is an effective method.

Some form of physical protection of trees (e.g. solid fencing) is very important and can often be the only way trees are effectively protected. The circumstances at each works site can vary significantly so using general or rigid guidelines/ rules does not always produce the best outcome for either the tree or the proposed works.

The growth of the above and particularly the below ground parts of trees plus the long term consequences of damage is generally best understood by qualified and experienced arborists. The underground parts of trees are as important as the above ground parts. Underground or root damage may not be obvious and may take many years before a failure occurs. Trees may not show any signs of stress or failure until long after damage or disturbance occurs with inspection/ assessment required before and after works.

All protection issues should be identified at the design stage with any protection plans finalized prior to any works commencing. Successful protection of trees relies on a commitment from all parties involved in the project. Council should not accept the responsibility for any trees below an acceptable condition/ standard. Any development or works within a street, parkland or roadside should take all practical steps to preserve existing trees in a healthy and safe condition.

Trees growing beyond the “scope of works”, due to the potential extent of their root system, changes to drainage patterns etc. can be seriously damaged. Capital and maintenance works should be designed and managed to avoid private trees being impacted by Council works and Council trees being impacted by private works.
Many authorities and private contractors have responsibility for conducting works adjacent to Council trees, particularly in streets. All parties need to give due consideration to all tree assets that they are likely to impact upon.

Above ground parts of trees are subject to damage by high vehicles, abrasion from telecommunication cables etc. No pruning of Council trees by others is allowed without prior consultation and permission from Council. Overhead electrical cables have the greatest impact on trees. The issues involved are complex and are covered in Section 8.0.

**Policy (Tree Protection)**

6.1 All works likely to impact on Council trees to be referred to the Manager Civil Operations at the planning/design stage.

6.2 Tree condition information, including photos, be provided for all Council projects where trees (public and private) may be impacted by works

6.3 Council trees, or trees that will become the responsibility of Council, be protected during all works

6.4 All works within the vicinity of a Council tree (or trees that will become the responsibility of Council) should comply with Council’s “Works in the Vicinity of Trees – Guidelines and Procedures” (see Appendix).

6.5 A “Tree Protection Plan” be provided and implemented to the satisfaction of Council for all projects likely to impact on trees

6.6 A Significant Tree Register be developed in order to define trees requiring specific tree protection.

6.7 All works within streets and roadsides comply with Council’s Road Opening reinstatement standards and requirements.

6.8 Trees identified to be retained and that are damaged either deliberately or through neglect by works be rectified where practicable and as soon as possible.

6.9 Costs associated with Policies 6.7 and 6.8 be the responsibility of the person/contractor who caused the damage and be subject to compensation where applicable

6.10 Council seek to develop a tree and infrastructure protection agreement with other authorities and contractors who undertake works within Council land.

**Related Documents.**
The Australian Standard for the Pruning of Amenity Trees – AS 4373 1996/07
The Australian Standard AS 4970 2009 – Protection of Trees on Development Sites
7.0 Infrastructure Protection

Principles

Infrastructure and trees are essential items in a modern environment. It is not possible to avoid all of the conflicts. They can however be minimized through innovative design and correct management of maintenance strategies and activity. Liaison between other infrastructure managers, Utilities, Responsible Authorities and Council, is essential in ensuring infrastructure damage is prevented or kept to a minimum.

Infrastructure is regularly subject to damage from adjacent trees. When any tree plantings are proposed in the vicinity of above and below ground infrastructure careful consideration of species selection, soil type, planting technique, available root space and the appropriateness of root control measures are needed to ensure damage is avoided or minimized.

Infrastructure within land outside of Council control can also be affected. Tree planting and growth from Council trees should not place any undue burden in the form of risk or maintenance on adjacent land or property.

It is often easier to design and construct infrastructure to withstand impacts from tree roots rather than control root growth or provide sufficient space for root growth. There are ongoing opportunities to do this as infrastructure may be replaced or changed several times throughout the life of adjacent trees. Consideration needs to be given to designing and constructing infrastructure that will not be adversely affected by trees.

Overhead assets such as cables and street-lights can be detrimentally impacted by trees. The Office of the Chief Electrical Inspector largely has control over this issue.

Policy (Infrastructure Protection)

7.1 All proposed tree planting or tree maintenance works likely to impact on, or affect, Council infrastructure, be referred to Council’s assets, infrastructure and civil operations sections for comment at the design or planning stage.

7.2 All tree selection and planting programs conform to the “Tree Selection and Planting” Principles listed in Section 4.0.

7.3 Any person or organisation wishing to plant trees, shrubs, herbaceous plants, or undertake any landscaping within a road reserve, park or other land under the control of Council must have permission in writing from Council.
7.4 Any trees or shrubs planted without Council permission and not in conformance with Council’s Tree Selection and Planting principles and policies will be removed in accordance with Council’s Tree Removal Procedure (see Appendix).

7.5 Council’s tree maintenance activities and programs are prioritised to ensure that all statutory obligations are met and that infrastructure damage and public nuisance are minimised.

7.6 All designs for roads, streets, and/or parklands under, or that will become under the control of Council, include adequate capacity for tree planting and growth whilst minimising conflicts with other infrastructure to the satisfaction of Council.

7.7 Where it is cost effective in the long term, infrastructure be selected and/or constructed to a standard that is capable of withstanding damage from existing and any future trees.

7.8 Council liaise with other authorities that have infrastructure within land managed by Council that may be impacted by trees prior to any major tree planting.

7.9 Council seeks to develop a tree and infrastructure protection agreement with other authorities and contractors who undertake works within Council land.

Related Documents
Indigo Shire: ‘Vegetation Management Plan’ for Declared (Fire) Areas.
8.0 Electric Line Clearance

Energy Safe Victoria (ESV) is responsible for ensuring electrical safety. The Indigo Shire has a statutory obligation under the Electricity Safety Act (1998) for maintaining public trees clear of overhead electric lines in the “Declared Areas” (refer to the “Indigo Shire Electric Line Clearance Management Plan” for details on how this is managed and “Declared Areas” maps).

The Indigo Shire Electric Line Clearance Management Plan must be resubmitted to the ESV by the 28th February each year. ESV review the Plan and will either approve it or require alterations. The responsibility for reviewing and implementing the Plan lies with Council’s Manager Civil Operations.

The “Declared Area” is generally an Urban area. Maintaining overhead electric line clearances for all trees outside this area is the responsibility of the local distribution company i.e. SP AusNet.

Beechworth is a Declared Area and the only area of Council responsibility with regard to Electric Line Clearance.

Principles

A reliable and safe supply of electricity is essential to the Indigo Shire business and residential community.

Overhead electric lines impact significantly on the aesthetics, longevity, health and structure of street trees and the best long term solution is to relocate the electric lines underground or clear of trees e.g. by the use of offset crossarms, increased height, aerial bundled/insulated cables.

Undergrounding of overhead electric lines is very expensive. Council should take the opportunity to significantly reduce these costs during road reconstruction, subdivisions and capital works projects e.g. by installation of underground conduits where appropriate.

The costs for any electric-line relocation project should be borne by all parties that benefit from it i.e. Council, local distribution company, residents and businesses. Opportunities for funding subsidies through the Powerline Relocation Committee should also be pursued if applicable. The Shire has many large trees and conflicts with overhead electric lines need to be resolved over the longer term without the need to preclude retaining or planting large growing trees.

Although electric line clearance responsibilities for public trees outside the “Declared Area” lies with another organisation (SP AusNet) Council still has an obligation to ensure residents views and Council’s policies and procedures are taken into account and impacts on trees are minimized.
**Policy (Electric Line Clearance)**

8.1 An Electric Line Clearance Management Plan be reviewed and submitted to ESV for approval annually.

8.2 Council seeks to undertake a formal liaison process with the distribution company (SP AusNet) and/or their agents with a focus on street tree planting, tree protection, pruning and electric line relocation.

8.3 Street tree planting, species selection and pruning practices aim to minimise conflicts with overhead electric lines.

8.4 A program of powerline relocation projects and installation of Aerial Bundled Cabling (ABC) be developed over time for possible future consideration in the budget process.

8.5 Relocation of overhead electric lines be considered as a possible part of any capital works project or development.

**Related Documents.**
Indigo Shire Electric Line Clearance Management Plan
Code of Practice for Powerline Clearance (Electricity Act)
SP AusNet: ‘Your Guide to Planting Near Electricity Lines’
9.0 Tree Maintenance

Principles

Tree maintenance should be based on a priority basis relative to Councils’ annual program and budget allocations. High priority maintenance works must take precedence over reactionary or lower priority requests.

Council has the responsibility to provide adequate maintenance on trees within public streets, parklands and roadsides within Council budgetary and resource constraints.

Maintenance of clearances (e.g. for pedestrians, vehicles, buildings and signage) and traffic sight distances is necessary. The correct maintenance regime on young and developing trees has the potential to significantly reduce the future risks and costs associated with mature trees. All trees shed litter in the form of branches, leaves, twigs, bark, flowers, fruit etc. and Council should provide a maintenance system or service to minimize the potential nuisance caused by this “natural shedding” process.

Tree maintenance should be performed to a recognised standard. The Australian Standard for the ‘Pruning of Amenity Trees’ – AS 4373 1996/2007 establishes a national benchmark.

Residents may wish to be actively involved in the maintenance of their street trees but this is ultimately the responsibility of Council. Qualified and experienced people should be involved in maintaining Council trees and residents should be encouraged to undertake basic care and establishment of newly planted trees.

Where trees have been lopped or damaged without the permission of Council the offending party may be responsible for restoration of that tree or paying to Council an appropriate level of compensation for rectification of damage.

Street, roadside and parkland tree numbers will likely increase every year and maintenance costs will therefore increase correspondingly. Tree maintenance budgets should keep pace with the increase in tree numbers to provide sensible and effective management.

One area of maintenance that is often neglected is the tree’s root zone. Root growth of trees can be less than desirable owing to the constraints of the root zone environment and damage to infrastructure from tree roots may require measures to be taken that impact on the tree.
Policy (Tree Maintenance)

9.1 Council develop prioritised programs of pruning and tree maintenance to improve the condition of Council trees and to minimize any potential hazard or nuisance.

9.2 Young and developing trees be formatively pruned with an emphasis on preventing future and long-term structural problems.

9.3 Council’s tree maintenance programs be based primarily on a priority system.

9.4 The development of a leaf (or “tree litter”) pick up service and composting advice be investigated to assist residents manage street, parkland and roadside tree litter that falls from Council trees.

9.5 Residents be encouraged to provide watering to young Council trees to aid their establishment.

9.6 Council seek to promote modern tree management techniques to assist residents and contractors make the best decisions on how to correctly manage tree assets.

9.7 Council regularly review the numbers and condition of trees it has responsibility for, methods of maintenance and budget requirements.

Related Documents
Indigo Shire Roadside Management Plan
AS 4373 2007 – Pruning of Amenity Trees
10.0 Environmental and Community Imperatives

Principles

Residents generally have an interest and often strong view on tree issues that are close to their properties. Consultation with residents can create a much better understanding of tree issues and a wider acceptance of the role and works undertaken by Council.

The community are generally aware of works and other activities that are or are about to be happening around their area. They are on site more often than Council staff and can quickly identify issues or threats to trees.

Many trees throughout the Shire provide a range of habitat for fauna e.g. hollows, nesting sites and roosting sites. Preserving these values can conflict with normal tree management practices. Alternative tree management practices may be warranted for trees with high habitat or ecological value.

Trees as ameliorators of air pollution and climate change will be an increasing area of value. Large trees are the most effective sinks of old carbon and their protection and further planting is important in overcoming greenhouse effects.

Recycling of material from tree maintenance operations such as woodchip, leaves, stump grubbing tailings and timber can reduce costs and provide a valuable source of materials to gardens, craft and trades people. The Shire’s trees contain a valuable timber resource with the reusing of this material valuable in reducing dependence on landfill.

Many trees have the potential to become environmental weed species. A tree’s weed potential needs to be an important consideration when selecting species.

The tree issues within the Indigo Shire are not peculiar to the Shire. Many of the surrounding Councils and local communities deal with similar issues and opportunities to assist each other should be explored. For example Elm Leaf Beetles do not respect boundaries, wildlife corridors should not stop at boundaries, LandCare and community groups do not limit themselves to Council boundaries.

Policy (Environmental and Community Imperatives)

10.1 The Indigo Shire will seek to consult with adjacent residents when new or major tree works are being proposed or undertaken.

10.2 The Indigo Shire seek to encourage the wider community to be aware of tree issues and to contact Council for information or when matters of concern are noticed.
10.3 Protection and planting of large growing trees be actively encouraged and Council’s tree planting programs aim at providing maximum community and environmental benefits.

10.4 The Indigo Shire seeks to reuse all debris from tree maintenance activities in a manner that retains the carbon as much as possible and negates the need to deposit any tree material in landfill.

10.5 A list of tree species that have a high weed potential if planted in the Shire area be developed with this information made available to the community.

10.6 The Indigo Shire seeks to develop relationships with surrounding municipalities and authorities such as Alpine Shire, Benalla, Wangaratta, Wodonga, Towong Shire, Parks Victoria, DSE, Murray/Goulburn & North East Water to assist in addressing tree management issues.

Related Documents
Indigo Shire Council: Environmental Strategy - 2009
11.0 Pest and Disease Control

Principles
Trees are subject to a range of pests and diseases. The concept of eradication is not practical in most cases and harm minimization should be seen as the best approach.

Pests and diseases do not recognise boundaries so a co-operative approach is required between land owners/ managers. Where pests and diseases have the potential to affect Council’s tree asset or “Significant Trees” Council should seek to assist residents and other land managers where possible in being aware of potential problems and control options.

Council has a responsibility to protect particular assets from harm or loss. Indigo Shire has an exceptional collections of Elms that are mostly free from major diseases. However, to control Elm Leaf Beetle, an annual control program is undertaken at a significant cost to Council.

Biodiversity is particularly important given our rapidly changing environment and possible threat from new pests and diseases.

Policy. (Pest and Disease Control)

11.1 Council develop and implement specific control programs where appropriate for major pests and diseases likely to affect trees under the control of Indigo Shire.

11.2 All trees to be planted conform to the ‘Pests and Diseases’ Principles listed above.

11.3 Council seek to develop relationships with surrounding municipalities, government agencies and local community groups to share information and resources to respond to the management challenges associated with pest and disease impacts on public and private trees.
12.0 Significant Trees

Principles

There are many trees or groups of trees within Indigo Shire that are of state and local significance. Some of these are recognised by the National Trust of Australia (Victoria) and are listed on their Significant Tree Register. This does not afford them any legal protection however. Some of these and others are protected under the Indigo Shire Planning Scheme. There remain many significant trees that are not protected nor recognised in any way with identification, recognition and protection of these trees yet to be developed.

Protection measures for significant trees are critical. There are a variety of ways to ensure their protection e.g. including them within the planning scheme and/or section 173 agreements.

Assessment of and agreement of what is considered to be significant is subjective. A process of nomination and registration may be best undertaken by a panel of people with a wide range of expertise and viewpoints; this should assist in creating community stewardship of these trees.

Community awareness of significant trees and the implications of having a Significant Tree Register is important. It will be the Community in most cases that identifies what trees are significant and, through their monitoring, that which best helps to protect them.

A register of significant trees (individuals and groups) covering the range of selection criteria in Appendix C can act as a valuable educational resource.

Policy. (Significant Trees)

12.1 A formal program to identify and assess public trees (individuals and groups) that are significant to the Shire and the local community be promoted within the community.

12.2 The Indigo Shire in conjunction with the interested significant tree community and owners seek to develop appropriate measures of protection (including the possible use of a Local Law and Local Government Act) and promotion for each significant tree or group of trees.

12.3 The Indigo Shire Significant Tree Register should generally follow the criteria used by the National Trust of Australia (Victoria) as detailed in Appendix E. It should however have a greater emphasis on what is peculiar or important to the local community rather than importance at a state level.
12.4 The community be encouraged in nominating trees for inclusion on the register (yet to be developed) and also make up the majority of any future panel to decide which trees are to be included in the register.

12.5 Trees that are significant to Indigo Shire be clearly identified and promoted throughout the community as these trees are recognised and registered moving forward.

**Related Documents**

Victorian Native Vegetation Framework (DSE)
13.0 Existing Tree Controls and Regulations

There are currently existing State and Local laws and regulations that control the removal and pruning of both native and exotic vegetation on private and public land. The policies and procedures in these Plans are in support of those laws and regulations and need to be viewed as being in addition to those laws and regulations.

It is the responsibility of all persons to ensure they do not do anything that is in contravention of any existing laws and regulations. The following information is provided to assist in determining what laws and regulations may apply noting that these may change over time.

More information on this and also the Department of Sustainability and Environment’s (DSE) Native Vegetation Management Framework (NVMF) can be found at www.dse.vic.gov.au/planning.

**Local Government:**
The Indigo Shire has a variety of planning scheme overlays and local laws that specify what may or may not be undertaken with certain types of vegetation. The overlays may include:

- Heritage Overlays with Tree Control
- Heritage Act 1995 – includes trees of State Cultural Heritage Significance
- Significant Landscape Overlays
- Environmental Significance Overlays
- Public Acquisition Overlays
- Vegetation Protection Overlays

**Other:** Other relevant authorities would include but not limited to: *Vic Roads. *North East Catchment Management Authority. *Goulburn Murray Water. * Parks Victoria. * SP AusNet.
14.0 Definitions

**Arborist (Qualified):** person with a Certificate IV in Arboriculture as a minimum (or equivalent qualification) or higher and a minimum of three years of relevant industry experience.

**Tree Incident:** the failure of any part of a tree that caused or realistically could have caused damage or injury to persons or property or where damage or injury was caused to a tree by another party.

**Immediate Risk:** – An ‘Immediate Risk’ (AKA Hazardous) relates to risk where “the danger is to be present, immediate or imminent and not remote either as to likelihood or as to time of occurrence (in other words something not to be expected for years to come)”. Usually a situation with serious implications of damage (or worse) to persons or property - within 24 hrs of its notification

**Poor Health:** – foliage colour and density plus annual shoot/extension growth plus woundwood development all severely retarded and/or outer canopy dieing back and/or pest and disease/s present and causing significant affects.

**Poor Structure:** – extensive decay and/or structural defects affecting the main branch/trunk framework, extensive remedial work required or not practical/possible.

**Diameter at Breast Height (DBH):** – a pertinent measurement taken at approximately 1.4 metres above the ground, that being a convenient height at which to measure a tree's diameter. For trees on slopes, multi-trunked trees, leaning trees or where branches are growths interfere with measuring at 1.4 metres refer to the Australian Standard AS 4970 2009 – Protection of Trees on Construction Sites.

**Sustained Amenity:** – (AKA Urban Forestry) is the creation and management of a tree population that contains a range of species and age classes within a local population; from new planting right through to mature trees. Amenity is sustained i.e. visual amenity of the landscape managed in this way does not fluctuate wildly. The need to remove many trees at the same time and rapid changes in the local landscape is avoided. Removal and replanting of trees takes place continually or irregularly throughout the whole of the tree population.

**Hazard Tree:**
A structurally unsound tree deemed to be an immediate risk to persons, property or infrastructure.
Definitions – Tree Descriptions & Terminology

AGE:
Young: Juvenile tree recently planted. Last 1-5 yrs
Semi-mature: Tree still growing
Mature: Specimen has reached expected size in current situation.
Senescent: Tree is over mature and in decline.

FORM:
Good: Canopy full and symmetrical.
Fair: Minor asymmetry, or suppression. Considered typical for species in situation.
Poor: Canopy suppressed, major asymmetry. Stump re-growth.

HEALTH:
Good: Crown full, with good density. Foliage entire with good colour; minimal or no pathogen damage. Good growth indicators, e.g. extension growth. No or minimal canopy dieback. Good wound-wood development.
Fair: Tree is exhibiting one or more of the following symptoms:
    - Tree has <30% dead wood, or can have minimal canopy dieback. Foliage generally with good colour, some discoloration may be present, minor pathogen damage present. Typical growth indicators, e.g. extension growth, leaf size, canopy density for species in location may be slightly abnormal.
Poor: Tree has >30% dead wood. Canopy die-back present. Discolored or distorted leaves and/or excessive Epicormic growth. Pathogen is present and/or stress symptoms that could lead to or are leading to decline of tree.
Dead: Tree is dead.

STRUCTURE:
Good: Good branch attachment and/or no minor structural defects. Trunk and scaffold branches sound or only minor damage. Good trunk and scaffold branch taper. No branch over extension. No damage to structural roots and/or good buttressing present. No obvious root pests or diseases.
Fair: Some minor structural defects and/or minor damage to trunk. Bark missing. Cavities could be present. Minimal or no damage to structural roots. Typical structure for species type.
Poor: Major structural defects and/or trunk damaged and/or missing bark. Large cavities and/or girdling or damaged roots that are problematical.
Hazardous: Tree poses immediate hazard potential that should be rectified as soon as possible.

VIGOUR:
Good, Fair or Poor: This describes the ability of a tree to promote extension growth and wound-callus effectively; this is directly related to the annual progress of tree growth, including root systems, which are dependant on in-situ and environmental conditions.

GENERAL CONDITION:
Describes a tree or group of trees in a broad term of convenient précis that considers all of these Tree Descriptors as mentioned in Documents & MS XL Spreadsheets.

USEFUL LIFE EXPECTANCY (ULE):
Useful Life Expectancy (ULE) means that in a planning context the length of time a tree can be maintained as a useful amenity and not a liability is by far the most important long-term consideration. ULE is contingent on a number of obvious
Trees are a renewable resource.
Definitions – Remedial Tree Pruning Works Descriptions

All Remedial Pruning Works recommendations are not essentially aesthetic; they are necessary for reinvigorating or preserving older trees and reducing the potential for further immediate failure. These perspectives are effective when extending the Useful Life Expectancy (ULE) of older trees. The natural role of Plant Growth Regulators (AKA Hormones) can be enhanced by appropriate pruning to promote the specimen.

Due to the age, size, condition, history and proximity to public access it is necessary to apply Remedial Works to minimise the typical large limb failure potential for which some Mature Trees are known.

Crown Reductions (CR), for example, reduce the potential wind influence upon a tree and consequently encourage new growth lower down within the canopy. This in-turn promotes new root growth, which is of the utmost importance for older trees thereby allowing the tree to feed more effectively and also improving root anchorage.

Dead Wood (DW) Removal reduces Pest & Disease infestation and eliminates current potential for public liability. Limb Reduction (LR) and Weight Reduction (WR) serve to enhance a truer Tree Form whilst focusing new growth in a desired direction by the influence of inherent natural Plant Growth Regulators; this may be absolutely necessary in an altered or contrived environment or to maintain Tree Form whilst reducing the potential for Branch Drop. Crown Thinning (CT) is the selective removal of branches to increase light penetration and air movement through the canopy, it may also serve to reduce the weight of certain branches or Branch Fork Unions; this technique is also known as Drop-Crotching. Under Pruning (UP) serves to allow public egress, sight distance, security, light spill or to achieve vehicular access.” (AP).

These descriptions are drawn from industry perspectives based upon the following:

Appendices

Appendix A:
Indigo Shire Townships –
Existing Tree Themes - Maps
Appendix B:
Indigo Shire Townships –
Proposed Tree Themes - Maps
Appendix C
Indigo Shire - Tree Removal Procedure

This procedure is to be used when considering the removal of any trees under the control or management of Indigo Shire.

Many public and private trees will be under the control or protection of local and/or state planning schemes. When considering removing these trees Council’s Statutory Planning Department should be contacted to determine any additional requirements.

Tree removal decisions will not be based purely on the preferences of those consulted. Decisions to remove, or not to remove, a tree must be in conformance with the principles listed in Council’s Tree Management Plan, Section 5.0 “Tree Removal”.

The removal of trees in “Poor” health and/or “Poor” structure and from any relevant Unsuitable Street Tree Species List will generally not require referral but must be fully documented.

No person is allowed to remove any tree on land owned or managed by Council without first obtaining written permission from Council. Council may seek compensation, using an agreed and proven amenity tree valuation method, for any trees removed without its permission.

Many trees are planted and landscaping installed on public land without Council permission and do not comply with the principles as stated in the Tree Management Plan section 4.0 “Tree Selection and Planting”. Removal of these trees and associated landscaping is often necessary for safety, policy and maintenance issues. When considering removing these trees and landscaping the required procedures will be followed.

1.0 Trees Assessed as Being ‘Hazardous’ or an ‘Immediate Risk’

Only trees that present a Hazardous or Immediate Risk can be removed without prior consultation with adjacent residents or owners. Only qualified and experienced arborists should be used to make this assessment; except in an emergency defined as - Usually a situation with serious implications of damage (or worse) to persons or property within 24 hrs of its notification.

A Hazardous or Immediate Risk relates to risk where “the danger is to be present, immediate or imminent and not remote either as to likelihood or as to time of occurrence (in other words something not to be expected for years to come)”.

A written and photographic record must be made by a qualified arborist (or experienced and responsible person) detailing the reason/s for the removal of the tree/s. The record is to be provided to the Manager Civil Operations as soon as is practicable and kept in Council’s information system.
In the case of trees listed on the “Indigo Shire Significant Tree Register”, or remnant native trees that present a Hazardous or Immediate Risk the area under threat is to be isolated from use/access if practicable. The Operations Manager is to be notified as required to determine the appropriate action to be taken.


2.0 Trees Assessed as Being Non-Dangerous Trees


3.0 Consultation Procedure – Tree Removal

If reasons for the removal request are purely as per Tree Removal Policy 5.5 no further removal consideration will be undertaken.

4.0 General Consultation procedure

The responsibility for carrying out this procedure lies with the Council’s Staff.

When considering removing a street, roadside or parkland tree adjacent residents, property owners and, in the case of parkland trees, committees of management must be consulted and their opinions taken into consideration when determining an appropriate course of action. Adjacent residents and property owners are those that could be reasonably expected to be affected by the removal of the subject trees.

The residents and owners are to be provided with a clear assessment of the trees condition, the Councils preferred option and the full range of options that were considered in writing.

If the immediate adjacent resident and owner plus a majority of the residents consulted agree with Councils preferred option then the work can proceed after seven (7) working days. Any residents who did not agree with the majority should also be informed seven (7) working days prior to commencing the works.

If the immediate adjacent resident and owner plus a majority of residents disagree with Councils preferred option the Senior Arborist or Council officer must try to resolve the matter through discussion with the affected parties. If consensus cannot be reached the Senior Arborist or Council officer is to provide a report to the relevant Manager, detailing the trees condition, options for remedial action, list of people consulted and their opinions and a recommendation.

The relevant Manager has delegated authority from Council to make a final decision. The people consulted are to be informed of the final decision at least seven (7) working days prior to performing the works.
Where no adjacent residences exist no consultation procedure is required unless the adjacent property owners have specifically requested to be consulted about trees abutting their properties. The Senior Arborist or Council officer will keep the Operations unit informed about these locations and the resident contact details.

In the case of trees that may be listed on the “Indigo Shire Significant Tree Register” the Senior Arborist or Council Officer will consult, where possible, with those people (including absentee owners), organisations or groups having a direct relationship with the tree.
Diagram 1: ‘Hazardous’ or an ‘Immediate Risk’ - Dangerous Trees Flow Diagram

Tree assessed by Manager Civil Operations as presenting an “Immediate Risk”.

- **Yes**
  - Tree listed on the “Indigo Shire Significant Tree Register”, or a remnant native tree.
    - **Yes** Able to make site/area safe?
      - **Yes** Make Safe & Contact Manager Civil Operations to obtain approval (if required) for further works.
      - **No** No prior consultation required.
    - **No** Remove tree or make safe (retain as “habitat” tree if suitable location and of sufficient value).
    - Document (including photo) reason/s for removal or actions taken.
  - **No** Contact adjacent resident/s, owner and/or user group/s with an explanation.

- **No** Refer to ‘Diagram 2: Non-Dangerous Trees Flow Diagram’.
Tree assessed by Manager Civil Operations as presenting an “Immediate Risk”.  

- **Yes**
  - Refer to ‘Diagram 1 – ‘Hazardous’ or an ‘Immediate Risk’- Dangerous Trees Flow Diagram’.

- **No**
  - **Live Tree**
    - Tree provides good native fauna habitat?  
      - **Yes**
      - Make safe, retain as Habitat tree if suitable location and sufficient value
      - Notify adjacent residents

    - **No**
      - Removal recommended
      - Implement General Consultation Procedure (refer to section 3.1)

      - Requestor in agreement (tree to be retained)
        - Organize any remedial works as required.

      - Requestor still wants tree removed - written request required
        - Implement Formal Consultation Procedure (refer to section 3.2)

        - Senior Arborist to provide Report and Recommendation to the relevant Manager

        - Decision in agreement with requestor (tree to be removed)
          - Notify in writing all people consulted
          - Do not carry out any works for at least 2 full weeks but complete as soon as possible

        - Decision NOT in agreement with requestor (tree to be retained)
          - Notify in writing all people consulted
          - Program any works required based on assessed priority

  - **Dead Tree**
    - Removal recommended
    - Notify and Discuss with Requestor

      - Requestor in agreement (tree to be retained)
      - Organize any remedial works as required.

      - Requestor still wants tree removed - written request required
      - Implement Formal Consultation Procedure (refer to section 3.2)

      - Senior Arborist to provide Report and Recommendation to the relevant Manager

      - Decision in agreement with requestor (tree to be removed)
        - Notify in writing all people consulted
        - Do not carry out any works for at least 2 full weeks but complete as soon as possible

      - Decision NOT in agreement with requestor (tree to be retained)
        - Notify in writing all people consulted
        - Program any works required based on assessed priority
Appendix D
Works in the Vicinity of Trees: Guidelines and Procedures

Refer: AS 4970 2009 – ‘Protection of Trees on Development Sites.’

1.0 Existing Controls and Use of this Guideline

Many trees within the Indigo Shire, both private and public, are protected under a variety of controls including the Indigo Shire planning scheme and state planning controls. A range of penalties can be imposed on persons found damaging or removing trees.

This guide should be used by all persons involved in undertaking any works in the vicinity of trees i.e. within the canopy/drip line or within a radius from the trunk equal to 12 times the trunk diameter, whichever is greater. This can often include trees outside the scope of works i.e. within the adjacent property and/or in the adjacent street or parkland.

Please Note: this is a guide only and should not be viewed as necessarily providing the right solution for every circumstance. All individual work-sites should be properly assessed (before and during works) and specific issues identified prior to any further works activity.

2.0 Indigo Shire’s Trees

Indigo Shire’s trees both Native and exotic contribute significantly to the Shire’s historic character and charm with many exotic plantings dating back to the late 1800’s. Many areas also contain remnant indigenous vegetation and other native trees that create a unique local identity and essential habitat for local wildlife.

Trees need and deserve strict systems of protection to control works in their vicinity that are likely to cause them damage. Trees are a living and dynamic asset often taking in excess of 80 years to mature and realistically once trees and/or roots are damaged they cannot normally be repaired or replaced.

3.0 Tree Protection Zone TPZ

The Tree Protection Zone TPZ is the principal means of protecting trees when working in the vicinity of trees. The TPZ is a combination of the root area and crown area requiring protection and must be kept free from construction disturbance so that the tree remains viable.

\[ TPZ = DBH \times 12 \]

where

\[ DBH = \text{trunk diameter measured at 1.4m above ground level.} \]
Works in the Vicinity of Trees: Continued…

A TPZ should not be less than 2m nor greater than 15m, except where crown protection is required.

4.0 Procedures for Works in the Vicinity of Trees

The procedure for working in the vicinity of trees as follows:

1. Determine what trees are to be retained on site and if any trees are ‘significant trees’
2. Determine if there is to be any works within a retained tree’s TPZ
3. Obtain arborist’s advice if there is to be any excavation, fill or tree pruning works within the TPZ of trees to be retained
4. Undertake all works within the TPZ in accord with arborist’s advice.

Branches Obstructing Works

Pruning branches incorrectly or breaking them off often results in limbs becoming structurally dangerous and decayed, thereby creating public liability concerns. All work sites should be inspected for possible tree or branch obstructions well before commencing work to identify any problem sites or trees. Pruning to remove obstructions should be done in accordance with the current Australian Standard for the Pruning of Amenity Trees – AS 4373 1996/2007

Council’s Operations department are responsible for the maintenance of trees within most streets, parklands and roadsides. If branches from Council trees are likely to cause an obstruction to your works they should be contacted (in advance) through Customer Services on telephone 0260 281 100 to arrange for any necessary pruning.
## Appendix E (i)
### Indigo Shire - Significant Trees (sample criteria for selection)

<table>
<thead>
<tr>
<th>Category</th>
<th>Title</th>
<th>Description</th>
<th>Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Horticultural Value</td>
<td>Any tree that is of outstanding horticultural value and could be an important source of propagating stock, including specimens that are particularly resistant to disease or exposure.</td>
<td>Tolerance selection (pest &amp; diseases). Propagating potential. Scientific value.</td>
</tr>
<tr>
<td>2.</td>
<td>Location or Context</td>
<td>Any tree that occurs in a unique location or context and so provides a major contribution to the landscape, including remnant vegetation, important landmarks and trees that form part of an historic garden, park, precinct or rural landscape.</td>
<td>Historic garden or park. Historic cemetery. Important landmark. Remnant native vegetation. End of natural range. Contribution to landscape. Historic planting style.</td>
</tr>
<tr>
<td>3.</td>
<td>Rare or Localised</td>
<td>Any tree of a species or variety that is rare or of very localised distribution.</td>
<td>Only known species. Rare species. End of natural range. Disjunct community.</td>
</tr>
<tr>
<td>4.</td>
<td>Particularly Old</td>
<td>Any tree that is particularly old or venerable.</td>
<td>Old specimen.</td>
</tr>
<tr>
<td>6.</td>
<td>Aesthetic Value</td>
<td>Any tree of outstanding aesthetic significance or unusual shape or form.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Historical/cultural Value</td>
<td>Any tree commemorating a particular occasion, including plantings by notable people, or having associations with an important event in local history, or having a generational history of commemoration.</td>
<td>Cultural group. Public welfare. WW1/WW2. British or other royalty. Visiting dignitary. Australian public figure. Victorian public figure. Local public figure. Group or family tree/s.</td>
</tr>
<tr>
<td>8.</td>
<td>Aboriginal Content (Traditional Owners)</td>
<td>Any tree that has a recognised association with historical aboriginal activities, including scar trees.</td>
<td>Scarred tree. Corroboree tree.</td>
</tr>
<tr>
<td>9.</td>
<td>Outstanding Example of Species</td>
<td>Any tree that is an outstanding example of its species.</td>
<td>Botanically</td>
</tr>
<tr>
<td>10.</td>
<td>Outstanding Habitat Value</td>
<td>Any tree that has outstanding value as habitat for indigenous wildlife, including providing breeding foraging or roosting habitat, or forming part of a wildlife corridor.</td>
<td>Breeding habitat. Foraging habitat. Wildlife corridor.</td>
</tr>
</tbody>
</table>

* Adapted from National Trust of Australia (Victoria) “Significant Tree Register” – criteria.
Appendix E (ii)
Indigo Shire - Significant Trees (Sample Nomination Form)

NAME of Tree / Trees
Botanical Name:
Common Name:
Other Names:
Is the Tree / Trees: *Natural or *Cultivated

LOCATION of Tree / Trees
Where is the tree/s located: *Private Property *Public Property *Roadside
Name & Address of property:
Township / Suburb:

OWNERS of Land
Name:
Postal Address:

AGE of Tree / Trees
Estimated Age:
Date Planted:
Planted by whom?

MEASUREMENT of Tree / Trees
Individual Tree: Group of Trees:
Height:
Trunk Circumference at 1mtr:
Canopy Spread:
Average Height:
Area:
Number in Group:

CONDITION of Tree / Trees
Current State of health: *Good *Poor *Damaged
Any Immediate Threat to the tree/s?
*Yes *No Please State:

CATEGORIES of SIGNIFICANCE - Please Circle:
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

Details of Person Nominating Tree/s
Name:
Postal Address:
Telephone:
Email:
Appendix F:
Indigo Shire – List of Townships & Assets

In the main Townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangambalanga, *Wahgunyah and *Yackandandah there exists a number of Council and community assets that contain trees. This list considers other less obvious sites that may contain community trees.

|----------------|---------------------------------------------------------------------------------------------------|
### Appendix F: continued...

**Indigo Shire – List of Townships & Assets**

In the main Townships of *Barnawartha, Beechworth, Chiltern, Kiewa, Rutherglen, Stanley, Tangambilanga, Wahgunyah and Yackandandah* there exists a number of Council and community assets that contain trees. This list considers other less obvious sites that may contain community trees.

<table>
<thead>
<tr>
<th>Township</th>
<th>Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kiewa</strong></td>
<td>*Kiewa Memorial Park Recreation Reserve &amp; Playground – Kiewa East Rd.</td>
</tr>
</tbody>
</table>
Appendix F: continued...

Indigo Shire – List of Townships & Assets

In the main Townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangambalanga, *Wahgunyah and *Yackandandah there exists a number of Council and community assets that contain trees. This list considers other less obvious sites that may contain community trees.

<table>
<thead>
<tr>
<th>Wahgunyah</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Recreation Reserve &amp; Football Oval – Reserve Rd.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yackandandah</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Caravan Park – Myrtleford/Yackandandah Rd.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Gundowring cemetery,</td>
</tr>
<tr>
<td>*Huon. reserve</td>
</tr>
<tr>
<td>*Sandy Creek reserve</td>
</tr>
<tr>
<td>Wooragee Hall and road reserve</td>
</tr>
<tr>
<td>Jacks rd – Dead Tree</td>
</tr>
</tbody>
</table>
Appendix G:
Indigo Shire – Speed Zone Maps

BARNAWARTHA

Approximate relevant Speed Zones
Appendix G:
Indigo Shire – Speed Zone Maps

BEECHWORTH

Approximate relevant Speed Zones
Appendix G:
Indigo Shire – Speed Zone Maps

CHILTERN

Approximate relevant Speed Zones
Appendix G: Indigo Shire – Speed Zone Maps

KIEWA and TANGAMBALANGA

Approximate relevant Speed Zones
Appendix G:
Indigo Shire – Speed Zone Maps

RUTHERGLEN

Approximate relevant Speed Zones
Appendix G:  
Indigo Shire – Speed Zone Maps

STANLEY

Approximate relevant Speed Zones
Appendix G:
Indigo Shire – Speed Zone Maps

WAGUNYAH

Approximate relevant Speed Zones
Appendix G: 
Indigo Shire – Speed Zone Maps

YACKANDANDAH

Approximate relevant Speed Zones
Appendix H:
Indigo Shire – Roadside Conservation Values Plan
Appendix I:
Indigo Shire – Tree Policy Pro-formas

Front Cover

ROAD RESERVE TREE ISSUES & PRO-FORMA DOCUMENTS

Operations and Works Supervisor

Indigo Shire Council
PO Box 28, Beechworth, VIC, 3747
Phone: (03) 5728 8000
Fax: (03) 5728 1676
Email: indigoshire@indigoshire.vic.gov.au
Appendix I:
Indigo Shire – Tree Policy Pro-forma

Tree Maintenance Philosophy

A Tree Maintenance Philosophy:
(3 good reasons why trees should be managed properly)

1

2

3


○ Achieve Set-Backs - To comply with legal responsibilities.

○ Extend Maintenance Periods - For Cost Effectiveness & Economy.

○ Promote the Asset - Because trees are important for many reasons.

Indigo Shire: Draft Tree Management Plan – June 2009
## Appendix I:
### Indigo Shire – Tree Policy Pro-forma

**Tree Inspection Form**

### TREE INSPECTION

- **DATE OF INSPECTION:** 
- **LOCATION:**
  - Township:
  - Address:
- **POSITION:**
  - Road Reserve
  - Nature Strip
  - Median
  - Park
  - Avenue
  - Other
  - Position / Comments / Sketch:

- **PLANT SPECIES:**
  - Common name:
  - Botanical name:

- **STATUS:**
  - Significant
  - Non-significant

- **HEIGHT OF TREE:**
- **SERVICES:**
  - Overhead mains Elec.
  - HV
  - LV
  - Service Wire
  - Other

- **CONDITION:** (Circle)
  - *Good
  - *Fair
  - *Poor
  - *Hazardous

- **MAINTENANCE:**
  - No Action
  - Wire Clear
  - Under Prune
  - Crown Reduction
  - Limb Reduction
  - Crown Thinning
  - Removal
  - Replacement
  - Stumps
  - Dead Wood Removal
  - Other & Comment here:
RE: Pruning of Trees – Statutory Distances

Dear Sir/Madam

I wish to take this opportunity to inform you of the commencement of tree pruning in your area. As part of our ongoing Street Tree Maintenance Program, the Shire’s trees growing in the “road reserve” are to be cleared from Eastern Energy electricity wires, service wires and streetlights.

Approximate clearances that are attempted:

♦ Service Wires (up to fence line) - 0.6 metre clearance
♦ Main Wires:
  - Low voltage - 1.0 metre clearance
  - High voltage - 2.0 metre clearance

NB. Electricity supply may be interrupted during this time with at least 48 hours notice given to residents by ‘SPAusNet’. In this program also, all street trees will be under-pruned to achieve the following approximate heights, for pedestrians and road users:

- Over Footpaths and Front Gardens - 3.0 metres
- Over Driveway - 3.0 metres
- Over Roads - 4.3 metres
- Over Nature-strips - 3.0 metres

Some work may be required inside the tree canopy to remove Mistletoe and dead or broken branches. The Shire’s ongoing commitment to a high standard of quality tree maintenance will be ensured and all attempts will be made to retain the shape and character of the trees and streetscape in general.

Pruning will commence approximately 7 days after receiving this letter.

Yours faithfully:

Indigo Shire Draft Tree Management Plan – June 2009
Appendix I:  
Indigo Shire – Tree Policy Pro-forma

Street Tree Removal – Sample Letter

RE:   Street Tree Removal

Dear Sir / Madam

I wish to take this opportunity to inform you of the intended removal of a Council owned tree presently situated in the road reserve outside:

__________________________________________________________________________

As a result of Council’s ongoing tree maintenance inspections, this tree (identified by a paint spot on the trunk) has been recommended for removal as soon as possible for the following reason(s):

- Inappropriately Placed
- Diseased
- Structurally Unstable
- Sight Distances
- Other

Given the attached Tree Planting Guidelines, a replacement tree: Can / Cannot be planted.

Replacement will occur in _________________

The tree species selected will be. _______________________

Should you require any further information regarding this matter, please do not hesitate to contact me on the Telephone: within 10 working days.

Yours faithfully:

Indigo Shire: Draft Tree Management Plan – June 2009
Appendix I:
Indigo Shire – Tree Policy Pro-forma

Guidelines for Street Tree Planting

GUIDELINES FOR STREET TREE PLANTING

Location to be determined by distance and existing features restrictions

Distance apart:

Trees should be normally located as per the following criteria:

- One tree per property unless other circumstances exist: *eg*: remnant indigenous vegetation exists to the road reserve or as may be defined in the Streetscape strategy.

- A common sense approach should be adopted.

Existing features:

Trees shall be located as per the following criteria:

- Minimum of 2.5 metres from driveways.

- Minimum of 3.0 metres from electricity poles and lines. Low growing species with a mature height less than 3m can be planted within 7 m of the lines. For trees outside the 7m zone, plant them at such a distance so that, if they fall, they will not fall on the lines or poles. For example, a 10m tall tree should be planted at least 13m from the lines. As you approach mid-span (the mid-point of the line between 2 poles) gradually increase the distances between powerline and any tree by an extra 3m.

- Minimum of 10.0 metres from corner of property boundary at intersections.

- Minimum of 2.0 metres from hydrants.

- Minimum of 3.0 metres from service wires.

- Trees are not to be located on property boundaries or over incoming electrical, gas and water services.

- Preferred location is in the centre of the block.
Appendix I:
Indigo Shire – Tree Policy Pro-forma

Street Tree Planting Request

STREET TREE PLANTING REQUEST

ADDRESS: __________________________

MAP REF: __________________________

AREA: __________________________

DATE: __________________________

SOURCE: __________________________

RESIDENT NAME:

ADDRESS:

TELEPHONE:

NEAREST INTERSECTING STREET:

CORNER BLOCK: YES / NO FRONTAGE:

SITE DETAILS

PLANTING DETAILS

PLANTING SEASON: DATE PLANTED

SPECIES: NUMBER:

SPECIES: NUMBER:

SPECIES: NUMBER:

STOCKSIZE: WATERING LIST: YES / NO

SUPPLIER:

Indigo Shire Council
PO Box 28, Beechworth, VIC, 3747
Phone: (03) 5728 8000
Fax: (03) 5728 1676
Email: indigoshire@indigoshire.vic.gov.au

Indigo Shire: Tree Management Plan – June 2010
Appendix I: 
Indigo Shire – Tree Policy Pro-forma

Tree Planting & Establishment Specifications

TREES PLANTING & ESTABLISHMENT SPECIFICATIONS – Streets & Parks

PLANTING

- Indigo Shire Council will nominate/ approve all viable tree-planting sites.

- The Contractor/Staff is responsible for the preparation of planting areas, the planting of a specified quantity, size and approved quality plant species.

- All trees to be supplied shall be first approved by the Operations Works Supervisor. The Contractor/Staff to provide a storage site for the plants.

- Tree planting in streets will be as in the Specimen / Feature Tree Planting Detail and Diagram or as directed by the Operations Works Supervisor.

- Tree Planting in Rural Zones (Outside 80 & 100 KPH) must be referred to Council’s Natural Resources Management Officer. These attached specifications are not relevant in Rural Zones.

SPECIMEN / FEATURE TREE PLANTING DETAIL

All Trees
Crown growth shall be vigorous and well formed. Variation of crown bulk on opposite sides of any stem axis shall not exceed 10%.

Trees shall have straight trunks. Trees with co-dominant stems shall not be used.

Tree stems shall have a good even taper.

No more than 5% of the soil volume shall fall away on lifting or gently shaking the unsupported root-ball or root system.

Trees shall have healthy, vigorous, well developed root systems and shall not be pot-bound, i.e. no coiling of the main structural roots, less than 10% coiling of the fibrous roots and the root system not being matted to the extent that it is retarding tree vigor.
Trees shall be free of pests and disease.

**All Street Trees**
Unless otherwise specified by the Operations Work Supervisor, all trees shall be a minimum two metres high (excluding root ball).

**Excavation**
The Contractor shall excavate the tree planting hole either naturally or mechanically ensuring no underground services are damaged. The hole shall be square and of the diameter no less than 2 times the diameter of the root-ball width and a depth of equal to the tree root ball. Sides of the hole, near the top, shall be tapered to better accommodate the horizontal growth pattern of the tree's root system. In poorly drained clay soils, the planting hole shall be 50mm shallower, so that the root ball is slightly above grade. Sides of the hole should be thoroughly scarified before the tree is planted to avoid glazing of the planting hole.

**Planting**
If the root ball is contained, it shall be removed from the pot, spring ring or hessian wrap ensuring all ties, strings and bindings are removed from the root ball. Any girdling roots are to be teased out or cut to interrupt the pattern, upon placement into the planting hole.

The tree, when in the hole should be level with the natural ground level or in poorly drained sites up to 25mm above the natural ground level.

The tree shall be able to stand in a straight, vertical position without support. Any soil that has been placed under the root ball of the tree to position the tree at the right height shall be firmed to ensure that no sinkage occurs after the planting process has been completed.

**Irrigation Tube** (Street Trees only or as required by the Operation Works Supervisor)
The Contractor shall place a 1.5 metre length of 100mm Agflow pipe, see planting detail, coiled around the root ball, with one end of the pipe protruding no more than 50mm above the soil level on the road side of the tree hole. Ag-flow pipe dimensions:

* **Advanced Trees**
  * Root-ball diameter exceeds 500mm
  * 100mm diameter pipe

* **Street Trees**
  * Root-ball diameter less than 500mm
  * 75mm diameter pipe
Backfilling
The planting hole shall be backfilled with indigenous soil removed from the tree planting-hole. Backfill is not to be incorporated with any other materials such as sawdust, bark, potting-mix or similar. If backfill other than indigenous soil is required, the soil texture shall be consistent with that of the indigenous soil.

Where excavated soil is heavily compacted, clods shall be broken up to approximately a 25mm maximum diameter prior to backfilling. The backfill shall be lightly firmed to eliminate any voids or air pockets and to ensure close contact with the tree's root mass and soil.

Stacking And Tying
The Contractor shall supply and install two (2) hardwood tree stakes. These stakes shall be positioned either side of the tree so that they are parallel with the side of the road - street trees only. The stakes shall be driven into the soil at the side of the root ball and not driven into the root ball mass. A tree tie of black plastic or rubber material, no less than 50 mm diameter will be stapled or nailed with galvanised clouts to the stake and wrapped around the trunk to allow sufficient freedom of movement (100mm) after staking. Guy-wires are not acceptable.

Mulching
Mulch, approved by the Supervisor shall be spread by the Contractor around the entire area both inside and outside the boundary of the planting hole to a minimum compacted depth of between 75mm and a maximum compacted depth of approximately 100mm.

Mulch must not have contact with the trunk of the tree.

Watering
The Contractor shall water all newly planted trees within 24 hours of planting taking place and there-after as instructed by agreement.

Formative Pruning
The Contractor shall prune the tree immediately after planting in order to remove any broken or damaged branches or unwanted lateral growth or twin leaders within the crown.
Site Clean-Up

The site shall be left in a clean, tidy manner, safe for pedestrians and road users. All debris, soil, rubble etc. is to be removed from site and all paved areas, kerbs, footpaths and road swept clean of clay and soil.

Establishment

The tree maintenance program should encompass the following activities to enable trees to become established with good structure:

- Watering for first 5 years, especially years 1-3. Water trees in November-April period
- Top-up mulch to 100mm thickness. For 1.0-1.5m radius trees mulch to 30cm of trunk
- Check stakes
- Weed control
- Formative prune – branch structure and clean trunk to 1.7m high above ground level.
Appendix I:
Indigo Shire – Tree Policy Pro-forma

Advanced Tree Details

Indigo Shire: Draft Tree Management Plan – June 2009
Appendix I:
Indigo Shire – Tree Policy Pro-forma

Semi-Advanced Tree Details

Indigo Shire Council
PO Box 28, Beelbangera, VIC, 3747
Phone: (03) 3728 8000
Fax: (03) 3728 1676
Email: indigo.shire@indigoshire.vic.gov.au

Indigo Shire: Draft Tree Management Plan – June 2009
Appendix I:  
Indigo Shire – Tree Policy Pro-forma

Crossover (drive-way) Applications – Impact on Trees

A proposed course of action to be taken to ensure that conflict does not occur between the installation of a crossover (drive-way) and street trees.

Prior to the issue of any permit it should be determined if that there is no street tree within 2.5 metres of any proposed crossing.

Request for Council Inspection of Tree: In event of there being any doubt as to the effect upon any tree, arrangements must be made for a Council Operations officer/ works supervisor to inspect the location and provide a ruling in accordance with the Tree Management Plan.

Minimum distances required:
The minimum distance recommended by the Parks Departments is 2.5 metres from the trunk of any tree. If a tree has a diameter at breast height (DBH) greater than 300 millimetres then an inspection by the Operations department is required.

The inspection, where necessary, is to ascertain the amount of protection required around each tree; the larger the size and foliage density the greater the area the tree requires. Each case varies according to species, aspect, site and circumstances. Works Supervisor will determine this based on:
Appendix C: Indigo Shire – Tree Removal Procedure.
Appendix D: Works in the Vicinity of Trees – Guidelines and Procedure
Appendix E: Indigo Shire – Significant Trees (criteria for selection)

The tree is to be assessed for removal by the Works Supervisor and is either recommended or not recommended for removal dependent on the following Criteria for Tree Removal:

Criteria for Tree Removal:

• The tree is dead, dying, diseased, hazardous.
• The tree is not significant or is designated a weed specie.
• The tree is not consistent with the uniformity or integrity of the streetscape.
• The tree is responsible for damage occurring to Council, Public or Private property and there appears to be no realistic options for retaining the amenity.
• That there is no viable location to facilitate the construction of the crossing.

Indigo Shire Council
PO Box 28, Beechworth, VIC, 3747
Phone: (03) 5728 8000
Fax: (03) 5728 1676
Email: indigoshire@indigoshire.vic.gov.au
Appendix J:  
Indigo Shire – Proposed Tree Planting Strategies

NOTE: A Working Group comprising of John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Assets Manager) met in 2009 and proposed the following planting strategy for the townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangambalanga, *Wahgunyah and *Yackandandah. The proposed strategy was amended in 2010 further to submissions from: (1) residents in Stanley to incorporate Oaks into proposed tree plantings, and (2) Wahgunyah to incorporate eucalypts (rather than peppercorn trees) into the Victoria St entrance way and natives into new subdivisional areas on the south side of the township.

| Barnawartha | 1. Replace Elms with Oak Tree to create Oak Street Tree Theme to town centre - *Quercus robur* (English Oak), *Q.cerris* (Turkey Oak), *Q.rubra* (Red Oak).  
2. Retain and enhance Plane Tree – *Platanus x acerifolia* as entrance avenues to East, West and North entrances.  
3. Ornamental Pears – *Pyrus ussuriensis/P.calleryana* to be street tree to portion of High & Stanhope Sts b/w town centre and entrance avenues and portion Soldiers Rd.  
4. All township verges to have existing native trees enhanced with native plantings of Ironbark – *Eucalyptus sideroxylon/E.tricarpa*, Red Box – *E. polyanthemos* and Yellow Box – *E. melliodora*. |
| Chiltern | 1. Replace Elms with Oak Trees – *Quercus robur* (English Oak), *Q.cerris* (Turkey Oak), *Q.rubra* (Red Oak)  
2. Use Oak Trees as street tree theme to entrances.  
3. CBD generally no trees: Crepe Myrtle – *Lagerstroemia indica*. For CBD street tree for laneways and where required.  
4. Willow Trees around lake to be replaced with Chinese Elms – *Ulmus parvifolia* and Weeping Myall - *Acacia pendula*.  
5. Remaining areas in Chiltern as per Rutherglen. Note: No Ash Tree themes. |
Appendix J:  
Indigo Shire – Proposed Tree Planting Strategies

NOTE: A Working Group comprising of John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Assets Manager) met in 2009 and proposed the following planting strategy for the townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangambalanga, *Wahgunyah and *Yackandandah. The proposed strategy was amended in 2010 further to submissions from: (1) Stanley to incorporate Oaks into proposed tree plantings, and (2) Wahgunyah to incorporate eucalypts (rather than peppercorn trees) into the Victoria St entrance way and natives into new subdivisional areas on the south side of the township and part Barkly Street.

### Beechworth

1. Core Elm Tree Avenues to be retained in town centre:
   - Loch St, Ford St b/w Short & Williams, Williams St b/w Finch & High. Bridge Rd b/w Smith St & Malakoff Rd

2. Existing Elm avenues elsewhere to be replaced with Osage Orange - *Maclura pomifera*. ‘Wichita’ as an Elm substitute:
   - Finch St & some of Last St and Church Streets

3. Golden Rain Tree – *Koelreuteria paniculata*. As new Street Tree Theme in: Bridge Rd b/w Short St & Malakoff Rd and High St from Bridge Rd to Elgin Rd.

4. Oak Trees – *Quercus robur* (English Oak), *Q.cerris* (Turkey Oak), *Q.rubra* (Red Oak) - to be Street Tree Theme in:
   - Bridge Rd b/w Smith St & Forrest Rd
   - Albert Rd b/w High St & Gilchrist Av
   - Buckland Gap Rd b/w Albert & Taylor Sts
   - Sydney Rd b/w Williams & Barnard Sts

5. Native local species such as Red Box - *Eucalyptus polyanthemos* and Black Cypress Pine - *Callitris endlicheri* to be planted on township verges to complement existing native theme in these areas.

Notes:
- Replacement avenue trees to have consistent spacing with existing plantings.
- Elm Tree substitute for streets like Finch to be phased in over 20-year time-frame.
- Tree planting required in Cemetery Rd. – *Arbutus canariensis*
- Power-line undergrounding Priority #1 = Albert Rd Beechworth.
- Other Oak varieties could be also trialled – 1. *Quercus palustris*, *Q.coccinea*, - but no powerlines & needs moisture; 2. *Q.rugos*; 3. *Q.agrifolia*. 
**Appendix J:**
**Indigo Shire – Proposed Tree Planting Strategies**

NOTE: A Working Group comprising of John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Assets Manager) met in 2009 and proposed the following planting strategy for the townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangamalanga, *Wahgunyah and *Yackandandah. The proposed strategy was amended in 2010 further to submissions from: (1) Stanley to incorporate Oaks into proposed tree plantings, and (2) Wahgunyah to incorporate eucalypts (rather than peppercorn trees) into the Victoria St entrance way and natives into new subdivisional areas on the south side of the township and part Barkly Street.

### Kiewa & Tangamalanga
1. Replace Ash trees with Chinese Pistachios *Pistachia chinensis* in town centre to form dominant theme of Tangamalanga Township
2. Retain and enhance existing Exotics and Natives in Kiewa along Kiewa East Rd
3. Re-establish Walnut Tree *Juglans nigra*, Black Walnut Avenue along entrance to Tangamalanga from the west on Kiewa East Rd.
4. Establish Oak Trees (may be *Quercus palustris*, Pin Oak, if no powerlines and moisture) along entrance to Tangamalanga from the east on Kiewa East Rd.

### Rutherglen
1. Replace Elms and Ash in township over time.
2. Elms to be replaced with Osage Orange ‘Wichita’ where appropriate.
3. Suggest Australian Nettle Tree *Celtis australis* as street tree theme along Murray Valley Highway through township. (Other approaches also?)
4. Enhance existing Kurrajong plantings in local streetscapes.
5. Replace Ash trees with Chinese Pistachios *Pistachia chinensis* to form dominant STT for residential streets
6. Carob Trees *Ceratonia siliqua* to be planted as screen trees to industrial areas on Fortune St.

**Notes:**
a. Other suitable street trees considered were Persian Lilac – *Melia azadarach*, Murray Pine – *Callitris glaucophylla*, and Weeping Myall - *Acacia pendula*, Jacaranda – *Jacaranda mimosifolia* would be an option for parks. Silky Oak – *Grevillea robusta* perhaps as an avenue tree where there are no Power-lines.
b. Important to establish a sense of place with avenues along major roads/approach roads to Rutherglen; Nettle Tree *Celtis australis*
c. Service club involvement in plantings would provide a major resource to get this township planted out
d. Kurrajong *Brachychiton populneus*, also recommended.
# Appendix J:
## Indigo Shire – Proposed Tree Planting Strategies

NOTE: A Working Group comprising of John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Assets Manager) met in 2009 and proposed the following planting strategy for the townships of *Barnawartha, Beechworth, Chiltern, Kiewa, Rutherglen, Stanley, Tangambalanga, Wahgunyah and Yackandandah*. The proposed strategy was amended in 2010 further to submissions from: (1) Stanley to incorporate Oaks into proposed tree plantings, and (2) Wahgunyah to incorporate eucalypts (rather than peppercorn trees) into the Victoria St entrance way and natives into new subdivisional areas on the south side of the township and part Barkly Street.

### Stanley

1. **Maple Trees and Oak trees** to be predominant Street Tree Theme in Stanley:
   - Many other Acer species are relevant!
   - Red Oak – *Quercus rubra*. Willow Oak – *Quercus phellos*.
   - Other Oak species are also relevant.

   Notes:
   a. Refer to ‘existing’ street tree plans for Stanley.
   b. Deciduous tree along roads preferred because of fire mitigation qualities.

### Wahgunyah

1. Eucalypt Trees – entrance-avenue to Victoria St., may include some native shrubs if necessitated by overhead power lines
2. Ornamental Pears – *Pyrus ussuriensis/P.calleryana* to Victoria St in residential areas.
3. Velvet Ash – *Fraxinus velutina* to Ford St in main town area.
6. Golden Rain Tree – *Koelruteria paniculata*. as STT to formal grid residential areas.
Appendix J:
Indigo Shire – Proposed Tree Planting Strategies

NOTE: A Working Group comprising of John Hawker (Horticulturist, Heritage Victoria), Colin Gladstone (Horticulture, Landscape and Arboriculture contractor) and Council officers Phil Prior (General Manager Operations & Assets), Alex Showers (Operations Manager) and Robert Uebergang (Assets Manager) met in 2009 and proposed the following planting strategy for the townships of *Barnawartha, *Beechworth, *Chiltern, *Kiewa, *Rutherglen, *Stanley, *Tangambalanga, *Wahgunyah and *Yackandandah. The proposed strategy was amended in 2010 further to submissions from: (1) Stanley to incorporate Oaks into proposed tree plantings, and (2) Wahgunyah to incorporate eucalypts (rather than peppercorn trees) into the Victoria St entrance way and natives into new subdivisional areas on the south side of the township and part Barkly Street.

| Yackandandah | 1. Replace Elms with Oaks Trees in town centre to form dominant theme of Township – No further Elms to be planted in Yackandandah moving forward  
2. Chinese Tallow Tree – *Sapium sebiferum* to be Street Tree Theme to out-lying streets.  
3. Isaacs Ave to have mixed tree theme with predominantly *Oaks* – *Quercus robur*, *Q. cerris*, *Q. petraea*, *Q. ilex*, *Q. suber*, *Liquidambar* - *Liquidambar styraciflua* – if no powerlines Cedars – *Cedrus deodara*, *C. atlantica*, *C. libani*  
4. High St Entrance to township to continue with current Oak Tree theme, *Q. palustris*, *Q. rubra*,  
5. New subdivisions to be planted with Pears – *Pyrus ussuriensis/P. calleryana* and Chinese Tallow Tree – *Sapium sebiferum*  
Notes:  
a. Power-line undergrounding Priority #2 High St Yackandandah from in front of school and Northwest along town entrance. |
## Appendix K:
### Indigo Shire – Summary of Nominated Species List

**SUMMARY of Nominated Species List:**

<table>
<thead>
<tr>
<th>Plane Tree – <em>Platanus acerifolia</em></th>
<th>Chinese Pistachios – <em>Pistachia chinensis</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamental Pears – <em>Pyrus ussuriensis / P. calleryana</em> cultivars</td>
<td>Walnut Tree – <em>Juglans nigra</em></td>
</tr>
<tr>
<td><em>Eucalyptus Sp.</em></td>
<td>Australian Nettle Tree – <em>Celtis australis</em></td>
</tr>
<tr>
<td>Red Ironbark – <em>Eucalyptus sideroxlon</em></td>
<td>Carob Trees – <em>Ceratonia siliqua</em></td>
</tr>
<tr>
<td>Ironbark - <em>Eucalyptus tricarpa</em></td>
<td>Persian Lilac – <em>Melia azedarach</em></td>
</tr>
<tr>
<td>Red Box - <em>Eucalyptus polyanthemos</em></td>
<td>Jacaranda – <em>Jacaranda mimosifolia</em></td>
</tr>
<tr>
<td>Yellow Box - <em>Eucalyptus melliodora</em></td>
<td>Silky Oak – <em>Grevillea robusta</em></td>
</tr>
<tr>
<td>Crepe Myrtle – <em>Lagerstroemia indica</em></td>
<td>Chinese Tallow Tree – <em>Sapium sebiferum</em></td>
</tr>
<tr>
<td>Chinese Elms – <em>Ulmus parvifolia</em></td>
<td><em>Maple Trees:</em></td>
</tr>
<tr>
<td>Weeping Myall - <em>Acacia pendula</em></td>
<td>Trident Maple - <em>Acer buergerianum</em></td>
</tr>
<tr>
<td>Golden Rain Tree – <em>Koelruteria paniculata</em></td>
<td><em>Oaks:</em></td>
</tr>
<tr>
<td>Osage Orange - <em>Maclura pomifera</em> ‘Wichita’</td>
<td><em>Quercus robur</em> ‘Fastigiata’, <em>Q. cerris,</em></td>
</tr>
<tr>
<td>Black Cypress Pine - <em>Callitri endlicheri</em></td>
<td><em>Q. petraea, Q. ilex, Q. suber, Q. palustris,</em></td>
</tr>
<tr>
<td>White Cypress Pine - <em>Callitri glaucophylla</em></td>
<td><em>Q. rubra, Q. rugosa, Q. phellos</em></td>
</tr>
<tr>
<td>Kurrajong – <em>Brachychiton populneus</em></td>
<td><em>Cedar Trees:</em></td>
</tr>
<tr>
<td>Canary Island Strawberry Tree – <em>Arbutus canariensis</em></td>
<td><em>Cedrus: C.deodara, C.atlantica, C.libani,</em></td>
</tr>
<tr>
<td>Red Flowering Gum – <em>Corymbia ficifolia</em></td>
<td><em>C. atlantica f. glauca,</em></td>
</tr>
<tr>
<td>Smooth Barked Apple Box – <em>Angophora costata</em></td>
<td></td>
</tr>
<tr>
<td>Hackberry – <em>Celtus occidentalis</em></td>
<td></td>
</tr>
<tr>
<td>Lightwood – <em>Acacia impexa</em></td>
<td></td>
</tr>
</tbody>
</table>