

BAW BAW SHIRE COUNCIL.

Tree Management Plan.

Baw Baw Shire Council: Tree Management Plan

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2 Introduction

2.1 Purpose

The purpose of this plan is to assist in balancing the management of trees on public land for risk, amenity and environment. Managing trees is often difficult and emotive requiring a balance between managing the risk to community safety and infrastructure whilst acknowledging the significant benefits of trees within the landscape to the social, environmental, economic and cultural wellbeing of the Baw Baw community. Council must also manage this issue within its limited financial resources in such a way as to limit Council's potential liability and provide equity between people seeking action to address their concerns about trees.

2.2 Scope

The Tree Management Plan responds to 'Goal 2: Protect the Natural Environment' of Council's Environmental Sustainability Strategy 2022-2030. The Plan sets out the management systems that Council will implement, within its allocated resources, to:

- 1. fulfill its duty of care obligations to manage the risks of tree failures on land controlled by Council potentially causing injury to people and/or damage to property and community assets;
- 2. fulfill its obligations under the *Electric Line Clearance Management Plan*; and
- 3. provide urban and rural open spaces with an environment and level of amenity that enhances community values and experiences.

The Plan covers the management of trees:

- on roads included in the Public Road Register (PRR) or on pathways¹ for which Council is responsible;
- in Open Space Areas (OSAs) and associated Facilities on Council land or under Council's control, and
- in the vicinity of electric lines where Council is responsible for line clearance in the Declared Areas of Warragul and Drouin.

The Plan is applicable to and will work in conjunction with:

- any activities that require the issue of a permit or other permission from Council (in particular <u>Section 52.17</u> of the Baw Baw Planning Scheme), or another authority responsible for public land; and
- tree management for the purposes of fire mitigation, protection of Council assets, or road safety.

The Plan excludes:

- trees that are located on:
 - private property;
 - reserves and other OSAs, where the trees are not under Council's management;

¹ as defined in the *Road Management Act*

- roadside memorial avenues, trees or plantations that are not registered as Council's responsibility;
- roads and roadsides that are the responsibility of the <u>Department of</u> <u>Transport and Planning</u>, and
- o other areas that are the responsibility of another authority.

2.3 **Objective**

The objective of the Plan is to establish and promote an integrated framework to manage the risks of trees on land under the control of Council that:

- sets out reasonable responses and actions consistent with Council's duty of care, stated policies and guidelines, and available resources;
- promotes a balance between managing risks, whilst acknowledging the significant benefit of trees within the landscape to the social, environmental, economic and cultural wellbeing of our community;
- promotes objectivity, consistency and transparency;
- includes compliance with requirements under the Local Government Act 2020, the Wrongs Act 1958, Privacy and Data Protection Act 2014, and Electricity Safety (Electric Line Clearance) Regulations 2020; and
- makes Council's approach and processes readily accessible and understandable to the public.

2.4 Limitations

Consistent with Section 83 of the Wrongs Act 1958, the Tree Management Plan (Plan) establishes "general procedures and applicable standards" that take into consideration the "financial and other resources that are reasonably available".

Council will make every endeavour to meet all aspects of the Plan. In the event of natural disasters, pandemics and events including but not limited to, fires, floods, as well as human factors, including but not limited to a lack of Council staff or suitably qualified contractors, Council reserves the right to suspend compliance with its Plan.

Once the events beyond the control of Council have abated, or if the events have partly abated, Council's Chief Executive Officer will write to the Council Officer responsible for the Plan and inform them which parts of the Plan are to be reactivated and when.

2.5 **Document Review**

Periodic review of the Tree Management Plan is essential to ensure through continuous improvement that the most appropriate processes and systems are in place to plan and manage the Shires tree population. This is also reflected in AS/NZS 4360:2004 (Risk Management) recommending periodic review. This Plan will be reviewed no later than 4 years from the most recent approved date. Each revision will undergo an internal review and be approved by the Director Community Infrastructure.

2.6 **Definitions**

Key terms and acronyms used in this Plan are:

Asset Protection Permit (APP): permit issued to protect Council assets from potential damage caused by building works, ensure public safety and record works and who is conducting them within the Shire.

Customer Request Management: requests are made by community members and internal staff. Council may conduct reactive inspection(s) and/or works upon notification of a Customer Request. Requests can be lodged by phone, email, in person at Civic Centres, via Council's website, by social media or via applications such as Snap Send Solve on smart phones.

Declared Areas: areas in which Council is responsible for tree pruning around electric lines, under the *Electricity Safety (Electric Line Clearance) Regulations 2020*. Council's responsibilities are limited to areas within Warragul and Drouin and all other areas of the Shire are the responsibility of relevant electricity distribution business.

Diameter Breast Height (DBH): Diameter of the trunk/stem measured at 1.4m above ground level.

Electrical Line Clearance Management Plan (ELCMP): Council is responsible for developing an annual Plan outlining how trees in the declared areas are managed. This plan is available on Council's website.

Fallen Timber: a tree or large branch that has fallen or has been felled.

Facilities: Buildings on Council managed land, such as sports pavilions, maternal child health centres, kindergartens and caravan parks.

Hazard: Any agent, (specific to this policy a tree) which may cause harm or damage to people, property or to the environment.

Inspection: the assessment of a tree to assess its health, condition and identify any potential hazards posed, depending on the assets and activities in the surrounding area.

Nuisance: unreasonable and substantial interference with the enjoyment or use of land.

Occupation of Road Reserves Permit (ORR): authorises and sets out the conditions for third parties occupying Council road reserves.

Open Space Areas (OSAs): public open space areas other than roads, such as parks, reserves and wetlands.

Planning Permit: a permit required or issued pursuant to the Baw Baw Planning Scheme.

Proactive Inspection: scheduled inspections undertaken systematically to a defined timeline.

Property Drainage: drainage pipes that discharge storm water from a property into Council's drainage system, being the legal point of discharge.

Public Road Register (PRR): the list of all roads in Baw Baw Shire that are required for general public use and identifies the maintenance zone as either Urban or Rural. The PRR is available on Council's website and is updated annually.

Qualified Arborist: a person with a current AQF Certificate III or Certificate V in Arboriculture (or higher) qualification.

Reactive Inspection: a tree inspection undertaken in response to a customer request.

Risk Rating: the determination of the risk level of a tree or tree part failing.

Road Management Plan (RMP): document adopted by Council in accordance with the *Road Management Act 2004* and available on Council's website.

Road Safety Issue: a tree-related issue that is primarily a road safety risk related to a healthy standing tree rather than a risk related to tree failure.

Rural Maintenance Area²: area within which roads, or sections of road, are designated as 'Rural' in the PRR.

Rural Road Carriageway Vegetation Free Envelope: roadside area that is maintained free of vegetation in rural maintenance areas.

Senescent: Gradual deterioration with age.

Significant Trees: trees that are included in the Baw Baw Significant Tree Register.

Street Tree (Urban tree): a tree growing within the nature strip/road reserve, in an urban maintenance zone.

Tree Protection Zone (TPZ): An area set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development. Typically expressed as a radius in meters that defines a circle with the trunk/stem at its centre.

Rural Tree: a tree growing within the road reserve in a rural maintenance zone.

Tree Debris: leaves, fruit, nuts, bark and small branches that have fallen or been pruned from a tree.

Urban Maintenance Area: the area within which roads, or sections of road, are designated as 'Urban' in the PRR.

Work Within Road Reserves Permit (WWRR): authorises and sets out the conditions for third parties working in Council road reserves.

2.7 Related documents

2.7.1 Statutory

- Baw Baw Planning Scheme;
- Electricity Safety (Electric Line Clearance) Regulations 2020;
- Environmental Protection & Biodiversity Conservation Act 1999;
- Flora & Fauna Guarantee Act 1988;
- Local Government Act 2020;
- Privacy and Data Protection Act 2014;
- Road Management Act 2004;
- Road Safety Act 1986; and

² Trees that are associated with Council-owned or managed OSAs and facilities are considered to be 'Urban' for the purposes of the Plan, regardless of adjacent roads being in a Rural Area

• Wrongs Act 1958.

2.7.2 Standards and Guidelines

- AS 4373-2007 Pruning of Amenity Trees;
- AS 4970-2009 Protection of trees on development sites;
- AS ISO 31000-2018 Risk Management Guidelines;
- Tree Valuation (Minimum Industry Standard 506) Industry Guidance on Tree Valuation Methodologies;
- Tree Support Systems (Minimum Industry Standard 310) Industry Guidance on the design and installation of cable, brace, guy and prop systems;
- Guidelines for the removal, destruction or lopping of native vegetation 2017; and
- Infrastructure Design Manual (IDM) and associated Standard Drawings.

2.7.3 Council related documents

- Significant Tree Register;
- Complaint Handling Policy;
- Community Local Law;
- Electric Line Clearance Management Plan;
- Guidelines for Driveway Access Permit;
- Indigenous Plants of Baw Baw Shire;
- Municipal Fire Management Plan;
- Open Space Areas Register;
- Open Space Maintenance Standards;
- Public Road Register;
- Risk Management Framework;
- Risk Management Policy;
- Road Management Plan;
- Roadside Conservation Management Plan;
- Tree Selection, Planting and Maintenance Policy;
- Urban Nature Strip Guidelines and Approved Plantings for Nature Strip Modifications; and
- Weed Management Strategy.

2.8 Legal Considerations

Under the Road Management Act 2004.

as 'road authority', Council has no statutory obligation to inspect and maintain *nonroad infrastructure* that is installed in the roadside³.

However, trees in the road reserve are generally accepted as being non-road infrastructure. It is Council's position through this Tree Management Plan that determines the level of service concerning the inspection and maintenance of trees in the urban and rural maintenance zones, within the financial and resource capacity of Council.

³ as defined in the Road Management Act

2.9 Clarifying Council Officer Decisions

Community members, including landowners, may seek to clarify a decision made under the Plan's management framework. This can be achieved by raising a customer request which will be responded to by the appropriate officer. Situations where a customer is dissatisfied with works or disagrees with an outcome will be managed in accordance with Councils Complaint Handling Policy.

3 Tree Management Framework

3.1 Overview

The Plan's management framework follows a systematic risk-based approach for the allocation of resources for inspection, assessment and works for trees covered by the Plan.

The framework sets out the overall approach to tree asset inspection, assessment and management through a program of systematic tree inspections, assessments and works which aim to implement best practice tree management to enhance public safety and amenity for residents and visitors to Baw Baw Shire. The following Framework is set out to explain how trees are managed in both Rural and Urban maintenance areas, as some management practices are the same (Section 3.2) and there are differences (Sections 3.3 and 3.4) due to the differing occupancy of the areas and available resourcing.

3.2 Trees in Urban and Rural Maintenance Areas

Council recognises that the management of trees differs between its rural and urban maintenance areas due to a range of factors including, but not limited to, the resourcing required should the two areas be treated the same, and their differing levels of risk to the public.

For roads located in the rural maintenance zone, as defined in the PRR, the approach to tree inspection is reactive and predominantly only assesses the risk of tree failure and the target which may be impacted. Tree management methods vary from those used in urban areas, particularly in terms of resource intensity.

In urban areas, there is a proactive approach to tree inspections that considers both tree amenity and the risk of tree failure. Trees in the nature strips/road reserves are inspected annually and works completed if required. Trees in the declared areas of Warragul and Drouin are inspected annually and works completed if required if required, in order to comply with the Electrical Line Clearance Management Plan, available on Council's website.

Proactive tree inspections are also undertaken for Council managed OSAs and Facilities and follow a zone-based approach (Section 3.3.1.2) to determine the inspection frequency. Reactive tree inspections are also undertaken in response to customer requests.

Tree management on Roads and road reserves not included in the PRR, where:

- Road reserves currently under lease or licence Tree Management will form part of the responsibility of the leasee/licensee. Council will not undertake inspection/works.
- Undeveloped (paper roads) Council will undertake a reactive inspection and undertake works as required if the land is under Council's management. If the landowner is other than Council the request will be referred to the relevant road owner.

3.2.1 Inspection Levels

Council undertakes three levels of tree inspections, applicable to both proactive and reactive inspections. All tree assessments are undertaken by Council's suitably qualified Arborist, qualified representative or external consultant Arborist.

3.2.1.1 Level 1: Limited Visual Assessment

Level 1 assessments are undertaken in the first instance, in both rural and urban areas. The basis for the Level 1 inspection is to identify any:

- dead, diseased or dying vegetation;
- cracks or cavities in unions;
- immediate hazards; and,
- tree support mechanisms (i.e., cables, straps etc.)

If a fault is noticed, Council's nominated representative is notified to either undertake remedial works if necessary, or where required, arrange for a Level 2 inspection to be completed.

Inspection Format		Visual, ground level
	Rural:	Council Officer
Inspector	Urban:	Minimum Qualified Arborist (Certificate III Arboriculture with 'Perform a ground-based tree defect evaluation' Unit)
	Rural:	Determine if works or further assessment is required
Aspects	Urban:	Health and condition assessment
		Compliance with electric line clearance requirements

3.2.1.2 Level 2: Basic Visual Assessment

Proactive Level 2 assessments are undertaken within the urban area only. The basis for the Level 2 assessment is a more detailed health and condition inspection and a risk assessment on a single tree, to identify any:

- dead, diseased or dying vegetation;
- cracks or cavities in unions;
- immediate hazards;
- tree support mechanisms (i.e., cables, straps etc.)
- future proactive maintenance requirements (i.e., tree canopy weight reduction, formative pruning, tree support mechanism maintenance etc.); and

• identification of further assessment requirements (i.e., aerial or tomograph inspections).

Alternatively, in the rural area, a works report is prepared that outlines the works undertaken and what risks have been mitigated by said works. This method recognises that the costs of continuing to undertake further inspections on trees that have been raised reactively would not be sustainable in the longer term. Any future inspections will be generated by a new customer request as per rural tree management process.

A Level 2 inspection may result in scheduling a Level 3 inspection.

Inspection Format		Visual, ground level
Inspector		Qualified Arborist (Certificate V Arboriculture minimum).
Aspects	Rural:	Health and condition assessment
		Risk assessment
	Urban	Health and condition assessment
		Risk assessment
		Compliance with electric line clearance requirements

3.2.1.3 Level 3: Advanced Assessment

If required, based on the outcome of a Level 2 assessment, more detailed assessments are undertaken. Level 3 assessments methods may include using a climbing arborist, drone or an elevated work platform to access the crown of a tree, or tomography to assess extent of wood decay. Testing for tree diseases is also included under Level 3. Level 3 may also be in the form of a written Arborist report.

Inspection Format		Can include above ground inspection, tomography to assess extent of wood decay, or testing for tree diseases (as relevant)
Inspector		Qualified Arborist (Certificate V Arboriculture minimum).
Aspects	Rural:	Health and condition assessment Risk assessment
	Urban	Health and condition assessment Risk assessment Compliance with electric line clearance requirements

3.2.2 Tree Risk Assessment

There are several tree risk assessment methods, with Council's preference to utilise the Tree Risk Assessment Qualification (TRAQ), developed by the International Society of Arboriculture (ISA).

A Level 2 tree inspection produces a risk rating from the combination of three components, each having 4 levels.

<u>Component 1</u>: the likelihood of the tree failing, in whole or in part

Component 2: the likely impact of any failure

<u>Component 3</u>: the consequences of any failure

The levels and the definitions associated with each component are set out in Table 4.

When undertaking a tree risk assessment, the part of the tree most likely to fail is identified and the risk is determined of the likelihood of the tree or tree part to fail onto the target underneath and the impact of the failure onto the target, within the time frame of when the tree will next be assessed.

Table 4: Risk rating components and levels

Risk Rating Levels	Risk Rating Definitions		
Component 1 – Failure Likelihood			
Improbable	The tree or tree part is not likely to fail during normal weather conditions and may not fail in extreme weather conditions		
Possible	Failure may be expected in extreme weather conditions, but it is unlikely during normal weather conditions		
Probable	Failure may be expected under normal weather conditions		
Imminent	Failure has started or is most likely to occur in the near future		
Component 2 – Impact Likelihood			
Very Low	The likelihood of the failed tree or tree part impacting a specified target is remote. This is considered the case for rarely used areas or if the target is outside the anticipated target zone.		
Low	There is a slight chance that the failed tree or tree part will impact the target. This is considered the case in occasionally used areas with no protection factors or a frequently used area that is partially protected.		
Medium	The failed tree or tree part could impact the target but is not expected to do so. This is considered the case in frequently used areas that are fully exposed, or constantly used areas that are partially protected.		
High	The failed tree or tree part is likely to impact the target. This is considered the case in areas with constant targets and no protection factors.		
Component 3 –	Failure Consequence		

Risk Rating Levels	Risk Rating Definitions
Negligible	Consequences that do not result in personal injury, involve low-value property damage, or disruptions that can be replaced or repaired.
Minor	Consequences that involve minor personal injury, low to moderate value property damage, or small disruption of activities.
Significant	Consequences that involve substantial personal injury, moderate to high value property damage, or considerable disruption of activities.
Severe	Consequences that could involve serious personal injury or death, high value property damage, or major disruption of important activities.

Components 1 and 2 are combined to indicate the overall likelihood according to Table 5. The combined likelihood rating from Table 5 and the Component 3 rating of consequence are combined to indicate the overall risk rating according to Table 6.

Table 5: Combined likelihood rating

Likelihood of	Likelihood of Imp	act		
Failure	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Table 6: Overall risk rating

Likelihood of	Consequence of	Failure		
Impact	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

3.2.2.1 Proposed Actions to Control or Mitigate the Risk

The following proposed actions guide the actions of Council staff in responding to the risk ratings resulting from inspections of hazardous trees. Acknowledging the difficulties in addressing every specific circumstance that may arise, the relevant Coordinator or Manager has discretion to make decisions outside of these guidelines where special circumstances warrant and are documented.

Council will take account of, but not be bound by, the recommendations of any inspection in planning or undertaking works.

3.2.2.2 Extreme Risk

Council will prioritise action to mitigate the risk from trees rated as having an Extreme Risk regardless of the available resources, reflecting the need to give priority to public safety over the value of the tree.

Actions may include pruning where it is considered likely the risk rating will be reduced to an acceptable level.

3.2.2.3 High Risk

Council will take appropriate action to mitigate the risk from trees rated as having a High Risk, regardless of the available resources, reflecting the need to give priority to public safety over the value of the tree.

3.2.2.4 Moderate Risk

Council's resources may not permit trees rated as a Moderate Risk to be treated. Where funds do permit Council to undertake some work on trees having a Moderate Risk rating, these works will be undertaken in priority order based on the risk rating and technical judgement of Council Officers regarding the relative risk of Moderate Riskrated trees and the potential for the risk rating to increase.

3.2.2.5 Low Risk

Council may not take any further action for trees with a Low Risk rating as they present a relatively low risk to the community and should be retained as part of the landscape and also, Council's resources may not permit trees rated as a Low Risk to be treated. Where funds do permit Council to undertake some work on trees having a Low Risk rating, these works will be undertaken in priority order based on the risk rating and technical judgement of Council Officers regarding the relative risk of Low Risk-rated trees and the potential for the risk rating to increase.

3.2.3 Exceptions

Regardless of risk rating from an inspection, Council will schedule all necessary works to ensure compliance with the *Electric Line Clearance Management Plan*.

3.2.4 Ongoing Monitoring of Trees

In urban maintenance areas, and sites included in the Open Space Areas and Facilities inspection program, trees are part of a proactive inspection program, depending on their location the frequency varies from yearly, or every two, five or seven years.

In rural maintenance areas, any program to monitor the ongoing condition of individual roadside trees would have a significant cost and reduce the physical and financial

resources available for carrying out the road clearance works and undertaking risk mitigation works on hazardous trees. When a tree has been previously reported and has undergone a reactive tree inspection, the tree does not go onto a proactive inspection cycle.

For all trees, the customer is advised to report any noticeable and significant change in the condition of the tree. Should this occur, a customer request is raised and a reactive inspection is scheduled and updates to the customer are provided accordingly.

3.2.5 Inspection types

3.2.5.1 Reactive Tree Inspections

Reactive tree inspections occur in response to formal customer requests received through Council's Customer Request Management system, advising Council of a specific tree(s) that may pose a potential hazard, in both urban and rural areas. That may include Council forwarding on received request(s) to appropriate landowners and managers.

In urban areas, Council's suitably qualified representative will visit the site for an initial level 1 assessment to assess the tree(s) identified in the request. The initial inspection for a reactive request will take into consideration assets and/or structures which may be impacted if the tree, or part of the tree, was to fail. After completing the initial Level 1 assessment, Council's suitably qualified representative (i.e., Council Officer) will determine if any remedial works or further assessments are required. In rural areas, the site is attended by a a Council officer who determines if an Arborist assessment and or if remedial works are required.

Further assessments may include a Level 2 assessment, and in some instances, a Level 3 assessment will be undertaken if required.

Trees on unused road reserves, in both urban and rural areas, are only inspected on a reactive basis upon request via Council's request system. Unused road reserves which are licensed or leased by adjacent property owners are the responsibility of the licensee.

Trees adjacent to formal paths (outside the OSA and Facilities program and Urban Nature Strip/Road Reserve Program) and within rural road reserves are only inspected on a reactive basis.

3.2.5.2 Proactive Tree Programs

Proactive tree programs are where trees are included in a program on a cyclic basis. There are several programs in place for trees in urban areas to be inspected and maintenance works conducted as required, detailed information can be seen in (Section 3.3.1). In rural areas, there is a program for rural road carriageway clearance, detailed information can be seen in (Section 3.4.1).

3.2.6 Scheduling of Works

In urban areas, works identified during the Nature Strip/Road Reserve Program, are completed as part of the zone works. For works identified from the OSA and Facilities program and reactive inspections, the requirement and time frame for the works is dependent on the nature of the works required and/or the risk rating. In rural areas, works identified during the Road and Carriageway Clearance Program are completed as part of the zone works. For works identified from reactive inspections, the requirement and time frame for the works is dependent on the nature of the works required and/or the risk rating.

3.2.7 Tree Pruning – General

The requirement for tree pruning is identified through a Level 1, 2 or 3 inspection or a programmed rural road inspection. Pruning is undertaken in accordance with *AS 4373 - 2007 – Pruning of Amenity Trees*.

3.2.8 Tree Removal – General

Council's position is to avoid tree removal wherever possible. Tree removal will only be considered if one or more of the following criteria are met, where the tree is:

- dead, in decline, or has a limited useful life expectancy, except if the tree (or a part of the tree) can be retained as a habitat tree (see section Habitat Trees 3.2.13);
- assessed as requiring removal via a Level 2 or 3 assessment where the hazard cannot be mitigated by pruning or other treatments/means;
- an inappropriate species located under powerlines requiring excessive maintenance pruning to maintain regulated clearances;
- encroaching on the clearances in:
 - Table 8 in urban areas;
 - Figure 2 in rural areas, and
 - alternative solutions allowing tree retention have been exhausted;
- infected with a pest or disease where there is no effective control and/or the recommended practice is to remove to prevent transmission;
- listed as an environmental woody weed (a permit may be required to remove);
- impacted by works and development, infrastructure repair or maintenance, where the works may result in the tree dying, suffering severe dieback, or becoming hazardous, and all practical design and repair solutions have been exhausted;
- located in an inappropriate location and assessed that it will impact the function of an asset such as swale drains, inlets, outlets, rock weirs and roads;
- significantly contributing to damages or nuisance to public and private property and all alternative solutions allowing tree retention have been exhausted;
- approved for removal through a planning or other permit;
- determined to be an inappropriate species and not a Council authorised planting; or
- determined to be a risk to road safety, subject to a road safety risk assessment.

No compensation will be provided to landowners for trees removed which have been planted on Council managed land without Council approval.

3.2.9 Instances for not Pruning or Removal

Trees provide many environmental benefits, including summer temperature mitigation, providing shade and reduction in air pollution. Street and Park trees provide benefit to adjacent landowners and the wider community.

Council will not prune or remove a tree:

- which poses an acceptable risk;
- that is assessed to be healthy and structurally sound and meets the required clearances and/or does not pose an unacceptable risk;
- to increase the light for existing or proposed solar panels;
- to reduce the volume of leaf and debris drop, including fruit, nuts and bark;
- to increase the visibility of advertising signage; or
- where existing trees have canopies over new developments and an Arborist assessment has determined no pruning is required.

3.2.10 Working Around Council Trees

Council trees are required to be protected as per AS 4970-2009 Protection of trees on development sites. This document guides the decision making regarding approving works which may impact the tree and if the tree is approved for removal. If there is potential for the Council tree to be impacted by the proposed development, one or all of the following reports may be required to be submitted by the landowner proposing the works:

- Preliminary arboricultural assessment
- Arboricultural impact assessment
- Tree protection management plan

The tree is considered to be impacted if the works are within the Tree Protection Zone (TPZ). The TPZ is calculated by measuring the Diameter at Breast height (DBH), in cm (1.4m above ground level) and multiplying it by 12.

Protection measures, such as fencing, or ground protection are required if the tree will be impacted or if the works are adjacent to the tree.

If the tree will be impacted upon to such a degree that the tree would require removal, it should not be assumed that the request for works resulting in tree removal will automatically be approved. The applicant will be required to demonstrate alternative design and engineering solutions have been considered.

3.2.11 Use of Tree Support Systems

The installation of cables as supporting systems for trees with structural defects is a contemporary arboricultural practice and should only be considered on the recommendation of a Level 3 inspection and an associated tree support system design. Reference should also be made to Minimum Industry Standard 310 – Tree Support Systems. The proposal should largely meet the following criteria:

- a support system will remedy structural weaknesses or reduce the risk of failure over the longer term;
- appropriate pruning to reduce extension and weight of supported branches and to decrease the leverage on the structural defect is undertaken prior to installation of a support system;

- cabling systems are installed by an appropriately qualified and experienced Arborist;
- hardware specifications should follow a recognised standard.

3.2.12 Pests and Disease

Council will generally not treat trees for pests and diseases with the following exceptions:

- Council's Elm trees that are susceptible to Elm Leaf Beetle and are treated on a three-year cycle;
- Trees in urban areas that have a history of being severely damaged by grazing animals, such as possums, may be subject to the following actions:
 - future monitoring;
 - pruning to restrict access to the canopy; or
 - installation of a guard around the trunk.
- Council will only treat for termites if the landowner can provide evidence from a licensed pest controller that:
 - the termites have originated from a Council managed tree; and
 - the termites have been treated on the landowner's property.

3.2.13 Habitat Trees

Live, senescent, and dead trees play a vital role as habitat that can be utilised by many types of fauna such as birds, small mammals, arachnids, insects, amphibians and reptiles, and flora such as plants, lichen and fungi.

Council balances the benefits of retaining a habitat tree with the risk that the whole tree or part of the tree failing may pose to public safety. The following are instances where Council can retain and manage viable habitat trees:

- if there is an acceptable risk of the tree or any branches failing and causing risk of injury or damage; or
- if there is an unacceptable the risk of the tree or any branches failing and causing risk of injury or damage:
 - the tree is reduced in height and/or width so that the risk of the tree or any branches failing and causing injury or damage is acceptable;
 - the asset(s) under the tree are removed from the drop zone; or
 - the area within the drop zone is mulched and under planted, to deter public access within the drop zone.

3.2.14 Infrastructure Damage

Should damage to Council infrastructure be attributed to the roots or growth of a Council tree, an appropriate solution will be sought that may include:

- realignment of path;
- selective root pruning;
- casting concrete kerbs in situ;
- ramping and bridging over existing tree roots;
- increasing the area available for root growth;
- the installation of tree root barriers; and
- replacing current infrastructure with material more tolerant to tree roots.

Analysis of costs incurred to repair prior and current damage and forecasting the potential for damage to infrastructure to reoccur in the short term, are factors when determining the most appropriate solution.

3.2.15 Asset Management and Document Storage

Inspection Levels 1, 2 and 3 and associated works are recorded in Council's asset management system. If this is not practicable, the inspection/report will be kept in Council's centralised document storage location.

3.3 Tree Management in Urban Areas

3.3.1 Urban Proactive Tree Inspection Programs

Proactive tree inspections occur in urban areas only, comprising of the following programs:

- Programmed Urban Nature Strip/Road Reserve Inspections, encompassing Electrical Line Clearance in Declared Areas.
- Programmed Open Space Area and Facilities Inspections

3.3.1.1 Programmed Urban Nature Strip/Road Reserve Inspections

Council conducts proactive tree inspections on trees growing within nature strips and road reserves within urban areas. Level I assessments are primarily undertaken in this program. As required by the Electricity Safety Regulations 2020 (Electric Line Clearance), powerline clearance is conducted by Council within the declared areas of Warragul and Drouin only. This program forms part of compliance with Council's Electric Line Clearance Clearance Management Plan. Works identified during this programmed inspection are undertaken as part of the zone works. Street tree and electric line clearance inspections are undertaken on an annual basis.

3.3.1.2 Programmed Open Space Area and Facilities Inspections

Council conducts proactive tree inspections on trees growing within Council owned and/or managed Open Space Area's (OSA's) and Facilities. These OSA's and Facilities are located within urban and rural areas. The program allocates a risk rating to each OSA and Facility, based on the frequency of use and assets within the site, this determines the tree inspection frequency. Initially a Level 1 assessment is undertaken, followed by a Level 2 or 3 where required.

3.3.1.2.1 Risk Zones for OSAs and Facilities

The method of dividing municipal assets into zones is based on a system developed by the US Department of Agriculture Forest Service⁴ is utilised in areas that contain Council OSA's or Council facilities. This approach is widely used in Australia and is adopted within Baw Baw accordingly, Table 7 presents a range of OSAs and Facilities generally associated with Risk Zone Categories, including the inspection frequency. Sites are categorised into low, moderate, high or very high.

⁴ Urban Tree Risk Management: A Community Guide to Program Design and Implementation (NA-TP-03-03), USDA Forest Service

Risk Zone Category	OSAs	Buildings and Facilities	Timing of Inspection
	Low use public areas with dispersed recreation, including:		Once every 7 years
Low Risk	 Flora Reserves Walkways Easements Vacant Land Open Areas 	Waste Transfer Stations	
Moderate Risk	 Moderate use OSAs, playgrounds and picnic areas Neighbourhood OSAs and reserves Memorials with adjacent trees 	 Carparks servicing moderate use public areas Community Houses Libraries Public toilet facilities Swimming pools Tennis clubs Bowling clubs Pony clubs 	Once every 5 years
High Risk	 High use OSAs, playgrounds and picnic areas Sports grounds and recreation reserves with pavilions, etc. BBQs with shelters 	 Car parks servicing high use public areas Senior citizens aged accommodation and day care centres Council depots Community halls 	Once every 2 years
Very High Risk	High use public areas such as Civic Park Warragul and Civic Park Drouin	 Childcare centres Pre-schools Maternal child and health centres Caravan parks 	Annually

The site category may change depending on the health and condition of the tree in conjunction with occupancy levels and assets in the site.

Generally, the risk rating for the entire OSA or Facility will represent the highest rating for the site and won't have multiple risk zones within a site. Although, there are some large scale sites with different use areas that present a higher or lower risk due to the use of the site and the location of the assets and may be divided into different zones. For example, a destination park with multiple use zones and assets, the trees around a playground, toilet block or car park may present higher risk than trees on the periphery of the space or adjacent to semi-natural areas where occupancy rates are lower and there are fewer assets.

3.3.2 Tree Pruning

Tree pruning in urban areas is conducted for tree health, corrective pruning, formative pruning, clearance requirements from assets, and to reduce risks to public safety and property, to an acceptable level. Pruning is undertaken in accordance with *AS 4373 - 2007 – Pruning of Amenity Trees*.

3.3.2.1 Clearance Requirements

Table 8 shows the clearance requirements from trees on Council managed land, from public and private assets. Figure 1 displays tree clearances from selected assets.

Asset Type/Location	Clearance
Over Footpaths	3m
Over Driveways	3m
Over Nature strips	3m
Over Roadway	4.3m
Median Strips, over roadway	4.3m
Traffic Lights and Signage	Minimum 1m, clear visibility
Streetlight	Minimum 1m, around and beneath light
Private built structure	2m
Electric Line Clearance	As per Electricity Safety (Electric Line Clearance) Regulations 2020

Table 8: Urban Clearance Requirements



3.3.2.2 Pruning of Deadwood

Deadwood greater than 25mm is removed from trees on nature strips/road reserves. In some circumstances, for trees such as remnant trees, the deadwood may be retained or reduced in length for habitat purposes, if it is deemed the deadwood poses an acceptable risk.

Deadwood in trees in Council managed OSA's and Facilities with assets underneath, such as seats and footpaths, is removed if there is an unacceptable risk.

3.3.2.3 Pruning of Council Trees Affecting Private Property

Where a street or reserve tree is overhanging the private property or affecting access, a reactive tree inspection can be undertaken to determine if pruning is required.

Council acknowledges the environmental and other benefits of the tree's canopy to adjacent landowners and the wider community, such as shade and reducing storm water runoff, especially during heavy rain events. If it is determined pruning is required, Council will restrict the pruning so that it does not compromise the health and integrity of the tree and the pruning is conducted in accordance with *AS 4373 – 2007 – Pruning of Amenity Trees*.

Baw Baw Shires Community Local Law does not permit landowners to prune Council trees and notwithstanding exemptions under the *Baw Baw Planning Scheme*. Council and authorised contractors undertake all necessary works on trees in urban areas.

3.3.3 Tree Removal

To avoid tree removal in urban areas alternative options are to be considered, such as pruning, street sweeping, drain cleaning and infrastructure modification.

The resident in a property directly adjacent to a tree that is being removed will be notified of the intended removal prior to the works in the form of a letter/information card left in the letter box, phone call or conversation in person. In some instances, prior notification to the resident may not be possible, such as if the Arborist assessment determines that the tree requires urgent removal.

Stumps will be ground out if they are within nature strips or within grassed areas within parks. Stumps may be left close to ground level if they are in a mulched garden bed within parks or in a road reserve without a formalised nature strip and foot path.

Stump removal where practical, will occur within a 12-week period after the tree has been removed dependant on available resources. The disturbed area will have the wood shavings removed, topsoil spread to level the area and seed spread within 7 working days of the stump being ground out.

3.3.4 Tree Planting

Council has a planting program within urban nature strips/road reserves and OSAs. Planting with Facilities is undertaken on a request basis. A request for tree planting can be made by contacting Council. The site will then be assessed for its suitability for tree planting. For street tree planting, the resident of the property which adjoins the nature strip will be notified of the intended tree planting and can decline the tree planting. The community are not notified of planting within OSAs, unless it is associated with a masterplan. Council generally undertakes tree planting between May to September, which is the optimal time for planting success. The public are not permitted to plant trees within the nature strip/road reserve or in a Council managed OSA or Facility.

3.3.4.1 Planting Locations

Priority for tree planting is generally given to:

- sites where trees have been removed;
- high profile and high use areas;
- areas where there are high percentages of aged trees, low species diversity and/or trees in poor health and condition;
- areas with a lack of trees;
- identified as being inappropriate under powerlines; and
- areas where residents or community groups have requested trees.

Trees will generally be located as per the following criteria.

- minimum of 2.5 metres from crossovers.
- minimum of 6.0 metres from electricity and light poles.
- minimum of 8.0 metres from kerb line of a tee intersection.
- minimum of 2.0 metres from drainage pits and legal point of discharge.
- minimum of 3.0 metres from hydrants.
- trees are not to be located within 3.0 meters of gas and water values or utility laterals, including property connections.
- trees are not to be located where private overhanging trees will significantly reduce the new tree's health, vigour or shape.

3.3.4.2 Species Selection

Council selects species that are suitable for, and perform well within the site, and contribute positively to the urban environment. If there is a current species theme for the street and the species is still deemed appropriate, then preference is given to plant the same species. If there is a mixed species planted in the street, then the most appropriate species will be selected for the site. If the current species is deemed inappropriate for the street, then a new species theme will be chosen. It is important to have diversity of species, age and growth rate, which reduces the vulnerability of the urban tree population. It also reduces the likelihood of losing a large proportion of trees in one event, such as pest or disease attack or extreme heat.

Species are to be planted from Council's approved species list, which can be seen in Appendix I. The species list provides a guide for the most appropriate species dependant on the nature strip size, or for a park site. Council may 'trial' species which are not on the list in appropriate locations to determine if the species may be included in future revisions of the species list.

3.3.4.3 Planting, Care and Maintenance

The tree stock sourced by Council and Council contractors must comply with AS 2303:2018 Tree Stock for Landscape Use. Trees planted as part of the annual street tree planting program are generally planted in 45cm/45litre containers and planted using the Tree Planting Standard Detail shown in Appendix 2.

Council will water street trees for the first two years of the tree being planted, or as required. The trees are maintained by Council officers and/or Council contractors. Residents are also encouraged to water street trees, to aid in their establishment.

3.3.5 Targeted Removal and Replacement of Inappropriate Trees Under Powerlines

Through the proactive annual inspection and maintenance of trees within the declared areas of Warragul and Drouin, there are trees identified as being inappropriate for under the powerlines. Generally, these trees require 6 monthly inspection and pruning to maintain the required clearances under the Electricity Safety (Electric Line Clearance) Regulations 2020. To reduce the resources required to remain compliant to the regulations, a targeted program will be developed for removal of the selected trees and replacing them with a more suitable species under the powerlines. This approach will be more cost effective in the medium to long term.

3.4 Tree Management in Rural Maintenance Areas

3.4.1 Proactive Rural Road Carriageway Clearance

Rural areas have a Rural Road Carriageway Clearance Program, where cyclic inspections of its rural road network identified on the public road register within rural areas are undertaken. As part of these inspections, the carriageway vegetation free envelope is checked and works undertaken as part of the zone works.

Tree health, condition or risk assessments are not undertaken on a proactive basis on trees within rural road reserves.

In addition to reactive inspections initiated through the customer request process, a tree on a rural road can be identified during programmed rural road inspections as immediate hazard and works programmed accordingly.

Council programs undertake cyclic road inspections in accordance with Schedule 1 of the *Road Management Plan* that sets out the inspection frequency of roads based on their classification. These inspections assess vegetation (including trees) on rural roads that are:

- an immediate hazard⁵ to road users;
- within the Rural Road Carriageway Vegetation Free Envelope depicted in Figure 2 (other than standing trees within the clearance space);
- impacting on sight distance at intersections and along the length of roads beyond the Rural Road Carriageway Vegetation Free Envelope distances;
- restricting the visibility of road signage; or
- fallen roadside trees or limbs over adjacent fences.

The outcome of a programmed rural road inspection for Road Carriageway Vegetation clearance may be:

- no further action (until the next programmed rural road inspection, as the tree meets the required clearances);
- undertake works to maintain the required clearances; and
- undertake works to remove the immediate hazard.

With almost 3,000 roadside-kilometres to maintain, high productivity equipment and methods are generally used in rural areas. Tree litter associated with pruning works is generally removed from the roadside.

Figure 2: Rural Road Carriageway Vegetation Free Envelope



⁵ defined as "roadside trees or limbs which are deemed to be an immediate hazard to road users including "hangers", leaning or split trees or limbs" (CON2019060)

3.4.2 Maintaining Path Clearances

Tree pruning on rural paths and trails is undertaken to maintain appropriate clearances when work is identified as a result of a reactive inspection.

3.4.3 Deadwood and Dead Trees

On rural roadsides, Council only:

- prunes deadwood or removes dead trees that is determined to be an unacceptable risk, and
- clears deadwood or fallen timber if it is deemed a fire risk by Council's Fire Prevention team.

3.4.4 Tree Removal

Fallen timber resulting from tree removal may be left on the ground if it has habitat value and/or is appropriate to leave on the roadside.

If trees are not retained as a habitat tree in whole or in part, the trunk is generally cut close to ground level. If it is necessary to remove stumps, the disturbed area will have the wood shavings removed and topsoil spread to level the area.

3.4.5 Tree Planting

Council rarely undertakes tree planting in rural areas and tree planting on road reserves by landowners is not permitted (see Table 9). Any tree(s) that are planted by landowners will be removed and action may be taken under Baw Baw Shires Community Local Law.

3.4.6 Trees Adjacent to Private Property Boundaries and Driveways

 Landowners may be able to prune Council trees and vegetation adjacent to boundary fences and driveways under *Baw Baw Planning Scheme* exemptions. The landowner must check with Council if the proposed pruning is exempt from requiring a planning permit. However, works in the road reserve will generally require a WWRR or ORR permit and potentially a TMP (see Table 9). The landowner (Council) is to be informed of the works prior. Pruning must comply with AS 4373-2007 – Pruning of Amenity Trees.

Council may undertake works on overhanging branches on trees adjacent to private property boundaries and driveways which pose an unacceptable risk, or it has been proven the trees is causing nuisance.

3.5 Tree Management and Infrastructure Programs

Council will, as part of its processes for planning, designing and implementing its infrastructure development and maintenance programs:

- reference the Plan and consider the impact of infrastructure development on trees and other vegetation, and
- actively seek to enhance the built environment by incorporating existing trees and additional plantings into projects and works.

3.6 Tree Management and Landowners

3.6.1 Relevant Council Provisions

Relevant Council permits and Local Laws are set out in Section 4.

3.6.2 Works by Council

In urban areas, Council undertakes all required tree works, for trees managed by Council which affecting landowners, including those related to customer requests.

In rural areas, for trees affecting landowners, Council:

- undertakes or schedules works on roadside trees with a Risk Rating other than Low;
- will make temporary repairs to fences to retain stock etc, if required; and
- will, subject to available funds and at the landowner's request, consider mitigating nuisance caused by trees fallen on private property.
- <u>does not</u> undertake works for:
 - o fence line clearing, or
 - o driveway vehicle or sight distance clearing,

Where works are required to prune for sight line obstruction from private driveways, works may be carried out by the landowner without a permit where the use of hand operated tools such as a hand saw, secateurs battery operated hedge trimmers etc are used. Where more extensive works are required and mechanical intervention is required then a WWRR permit and consultation with Council will be required before any works are undertaken.

3.6.3 Works by Landowners

The following Table 9 is indicative of the permits required for landowners to carry out a range of tree works on Council land. This list is not exhaustive and landowners remain responsible for compliance with Council requirements.

Table 9: Authorisations for Works by Landowners

Work Type	Urban	Rural	Ы	WWRR	ORR	TMP/MOA	DAP	РСР
Any works that may affect a significant or heritage tree	×	×						
Clear vegetation in road reserves from fence/driveway ¹	×	\checkmark	?	v	/	?	x	\checkmark
Council vegetation affected by new/modified driveway ²	×	V	\checkmark	\checkmark	x	\checkmark	\checkmark	x
Plant trees on Council road reserves ³	×	X ? √ ? X				x		
Cleaning/replacement of property drainage	\checkmark	\checkmark	x	v	1	?	x	x
Legend:PPPlanning PermitWWRRWorks within Road Reserve PermitORROccupation of Road Reserve PermitTMP/MOATraffic Management Plan/ Memorandum of AuthorisationDAPDriveway Access PermitPCPPrior Council Permission	✓ ✓ × ?	Lan Lan Req Not May	dowr dowr Juirec requ 7 be r	ner wo her wo l ired equir	orks p orks <u>n</u> ed	oermi <u>iot</u> pe	tted ermitt	ted
 Notes: Prior Council permission is required (Permission will in Landowner may be required to reimburse Council for Section 3.8) 	ndicat or the v	te if P value	ermit of ar	s are ny tre	requ es rer	ired) move	ed (se	96

3. Council may require landowners to compensate Council for the loss of trees to be removed pursuant to a permit (see Section 3.8).

3.6.4 Private Trees Affecting Council Property or Infrastructure

3.6.4.1 Fallen Trees

If a tree from private property falls in whole or in part onto roads or land under Council's care and control, Council may act reasonably to minimise risks to the public and other property. This may include clearing all or part of the fallen tree and Council may claim costs from the landowner for any action taken.

Removal of any remaining portion of the tree and any associated debris remains the responsibility of the landowner and parts of the tree cleared by Council may be returned to the landowner for disposal. Responsibility or liability for any damage remains with the owner of the tree.

3.6.4.2 Private Trees Impacting Council Infrastructure

If a tree on private property impacts Council infrastructure, Council will work cooperatively with the landowner to achieve an outcome that balances the personal and community value and benefits of the tree and repair required on Council's infrastructure to reduce the risk to public safety.

3.6.5 Council Trees Affecting Landowners

3.6.5.1 Tree Roots and Blocked Property Drainage

3.6.5.1.1 Condition of Property Drainage

Depending on type, age and quality of construction, property drainage can be susceptible to root infiltration through poor joints, gaps and holes and this is the primary cause of roots infiltrating and blocking property drainage. Figure 3 shows the landowner is responsible for maintaining their storm water pipe, up to and including where it joins the Council pipe termed the 'Legal Point of Discharge'.





It is the landowner's responsibility to remove the blockage by removing the tree roots and ensuring the pipe is entire so that tree roots cannot re-enter the pipe. This can be done by repairing joins, relining the pipe or in some instances pipe replacement may be required.

There are instances where the roots of a Council tree grow above or below the pipe exerting pressure on the pipe over time resulting in pipe damage or displacement. If the landowner has undertaken repair works and a Council tree appears to have caused the pipe to be dislodged, causing a break in the pipe or join, allowing the roots to enter the pipe, the landowner may be eligible to claim costs of repair from Council. The landowner will need to contact Council and a customer request raised for the issue to be investigated. The claim must be supported by photographs and a statement by the contractor. Council is not liable for tree roots entering the pipe, if it is determined that the resident's pipe has not been maintained to ensure it is entire and the roots have entered as a result of a poorly maintained pipe.

Any works to remove the blockage and repair the pipe within the nature strip/road reserve and foot path, will require a WWRR or ORR permit that may include conditions regarding impacts on the tree other than the roots within the pipe. A TMP may also be required.

3.6.5.2 Damage to Property and Infrastructure

If the landowner has reason to believe that a Council tree has damaged the property or infrastructure (fences, drainage pipes, walls, paths, driveways, etc.), they should raise a customer request and a Council Officer will investigate. Ideally, the landowner should contact Council prior to rectification works for Council to investigate the most likely cause of the damage. The landowner is required to take evidence (generally photos) of the damage and also the costs to rectify the damage. The claim will be assessed by Council's Risk Team to determine if the landowner is eligible for compensation. If works are required on the Council tree to mitigate the damage (including tree removal, branch pruning or root pruning), then these works will be undertaken by Council.

3.7 Tree Management and Third Parties

3.7.1 General

Trees under the control of Council can be impacted by a range of third parties including:

- Contractors/landowners developing subdivisions or properties adjacent to Council roads or land; and
- services utilities and contractors extending or maintaining utility assets and infrastructure or property connections.

Unless activities are exempt⁶, a relevant permit or consent must be obtained from Council and that will generally include the requirement that works be undertaken in accordance with *AS 4970-2009 – Protection of trees on development sites*.

Where practicable, Council will require the installation of utility assets within the Tree Protection Zone (TPZ) of a Council tree to be installed using boring techniques, to reduce the impact of the works on the tree.

The third party will be required to reimburse Council for the value of any tree removed as part of a permit (see 3.8 Tree Amenity Valuation).

3.7.2 Location of Trees and Utilities

In greenfield locations the establishment of street trees and location of utilities should be in accordance with relevant Infrastructure Design Manual (IDM) Standard Drawings⁷, unless otherwise approved by Council.

⁶ for example, an exemption provided for infrastructure and works managers in the *Road Management Act 2004* or Regulations

⁷ produced by the Local Government Infrastructure Design Association

Where there are established street trees or utilities, locations for new trees or utilities should be guided by the IDM Standard Drawings and minimising the potential impact on existing trees/services.

3.7.3 Trees and Crossovers

In line with the IDM, Council requires trees to be located no closer than 2.5m from the edge of the crossover. This distance is required to allow room for the trunk to grow in diameter and the reduce the likelihood of the tree damaging the crossover over time. Although, for mature trees, engineering solutions may be accepted allowing the distance to be less than 2m, if the tree's health and stability will not be impacted by the works.

A DAP permit will be required prior to construction of the crossover. During the permit assessment, the applicant will be notified if there is a tree which will be impacted by the proposed development. The resident can either move the location of the crossover, if practicable, so it is greater than 2.5m from the edge. Or Council can assess the tree to determine if it can be removed or relocated to accommodate the crossover. The following sections outline when Council will relocate or remove trees to facilitate development and the associated fees applicable.

3.7.3.1 Relocation

Tree relocation is considered if all the following conditions are met:

- Tree is generally less than 2m in height;
- Tree is in good health and condition, although has not established a root system (allowing for transplanting);
- there is sufficient space for the tree to be relocated within the same nature strip; and
- Relocation to occur during May and September.

3.7.3.2 Removal

Tree removal is the only option if at least one of the following conditions are met:

- Tree is generally greater than 2m in height;
- Tree is not in good health and condition; and
- There is insufficient space for the tree to be relocated.

3.7.3.3 Relocation and Removal Fees

Once approval has been granted, there are costs to the applicant for the tree relocation or removal and are outlined in Table 10. The fees will be provided to the applicant and must be paid prior to commencement of the tree works.

Table 10 Fees Associated with Tree Relocation and Removal

Scenario	Fee			
	Tree Relocation	Tree Removal	New planting	Amenity Value*
Relocation	Yes	No	No	No
Remove tree with no room for replanting at same site	No	Yes	Yes**	Yes
Remove tree with room for replanting at same site	No	Yes	Yes	Yes

*Refer to Section 3.8 Tree Amenity Valuation and if the tree is >3m high.

**Tree will be replanted in an appropriate location within Baw Baw Shire.

The fee to remove the tree will depend on its size and will include the cost to grind the stump if the roots have established. The fees and charges associated with Table 10 are updated on an annual basis and are available on Council's website. Tree relocation includes establishment maintenance for two years. Tree planting includes the purchase of a tree generally 1.5m high in a 40cm container, planting and establishment maintenance for two years.

3.8 Tree Amenity Valuation

There is currently no Australian Standard for the amenity valuation of street trees; periodic attempts to establish a Standard have been unable to achieve consensus.

In 2022, Arboriculture Australia (peak national industry body) published a minimum industry standard (MIS) for tree valuation⁸ and Council has adopted the MIS506 tree valuation method set out in Section 6.4 of MIS506.

MIS506 does not include specific removal, replacement and ecological services⁹ that can be calculated using accepted market values and methodologies.

The simplified formula for individual tree valuation is:

Where:

B = Market baseline value

Z = Land use factor

S = Social factor

Q = Quality factor

⁸ Tree Valuation, industry guidance on tree valuation methodologies, practices and standards, MIS506, *Arboriculture Australia 2022*

⁹ for example, carbon storage, annual sequestration, stormwater retention/run-off mitigation, household energy savings and air quality improvement

Trees are valued on an as needs basis. Only trees above 3m tall will have the valuation applied. The most likely reason a tree will be valued is via a request for tree removal to facilitate development, including buildings, services and crossover installation. Tree valuation and cost associated also applies if the tree has been approved for removal via a planning permit.

Upon request, the tree is valued and the applicant is notified of the calculated value of the tree. Council has the right to refuse the request for tree removal.

If Council agrees for the removal of the tree, the applicant must agree to pay Council for the value of the tree, prior to its removal. There are also additional associated costs, payable by the applicant, for the tree removal such as physical removal of the tree, stump grinding, replanting and establishment for a replacement tree. This is outlined in (Section 3.7.3.3). The amenity tree value funds will be directed to tree planting and management of the trees within Baw Baw Shire.

If a Council tree has been damaged by a resident/landowner or contractor/developer, resulting in the tree requiring removal, the tree will be valued and the value of the tree will be charged (along with the additional associated costs of tree removal, stump removal, replacement tree planting) to the person responsible for the damage.

4 Council Permits and Local Law

4.1 Planning Permits

Under the Baw Baw Planning Scheme, a Planning Permit may be required for tree management, particularly, pruning and removal. Overlays affecting a site may also have vegetation controls and exemptions. Council's website should be referred to, to assist to determine if a permit is required. Landowners should contact Council to determine if an exemption applies or if they need a permit for the proposed works.

4.2 Works within Road Reserves Permit

Persons undertaking works within road reserves included on Council's PRR are required to hold a Works Within Road Reserves permit, for the removal of vegetation on rural roadsides. In addition, a Traffic Management Plan and Memorandum of Authorisation may be required (see Table 9). WWRR permits are a form of written consent that allow the conduct of works on roads in conformance with Section 63(1) of the *Road Management Act 2004*.

4.3 Occupation of Road Reserves Permit

Persons occupying road reserves included on Council's PRR to undertake minor works (for example, that does not involve excavation or the use of large machinery) are required to hold an Occupation of Road Reserves permit, including for the removal of vegetation. In addition, a Traffic Management Plan and Memorandum of Authorisation may be required (see Table 9). ORR permits are also a form of written consent:

- that allow the conduct of works on roads in conformance with Section 63(1) of the *Road Management Act 2004*, and
- satisfy the permission requirement of the above DEECA Guideline.

4.4 Driveway Access Permit

A Driveway Access permit is required to construct, alter or remove driveway access from a Council maintained road to ensure that the proposed access works meet the appropriate standards and protect Council assets during construction.

In urban and rural areas, any trees on the road reserve impacted by the driveway may be relocated or removed and replaced by Council at the landowner's expense. Refer to Section 3.7.3 Trees and Crossovers for further information.

In rural areas, the removal or pruning of trees to the extent included in the permit are the responsibility of the landowner.

4.5 Urban Nature Strip Modification

Council allows residents to modify urban nature strips to utilise plants other than grass. Please refer to Council's 'Urban Nature Strip Guidelines' and the 'Approved Plantings for Nature Strip Modifications' for further information, where a Nature Strip Modification permit is required. Although, Council does not permit residents/landowners to plant trees in the nature strip/road reserve. A customer request can be logged to request a street tree to be planted.

4.6 Asset Protection Permit

An Asset Protection permit assists Council in protecting its assets (including trees) from potential damage caused by building works, ensure public safety and record what and who is conducting works within the Shire.

Building works include, but are not limited to, any clearing, demolition or construction activity undertaken on a property, and having construction materials or equipment delivered to the property.

4.7 Community Local Law

Council's Community Local Law includes provisions for the management of trees and other vegetation on private and Council land, including, overhanging branches, vegetation, vehicle crossings and access to land. This law also has provision for trees listed on Council's Significant tree Register.

5 Appendices

5.1 Appendix 1 - Species List

Tree Spec	ies							Charact	teristics of Species		Looatie	ons and Use	•
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Foliage, Fruit Bark	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Acacia dealbata	Silver Wattle, Mirnosa	15	10	E	N	Snow, Frost	Fast	Standard	Greyish-green bipinnate leaves. Cream ball-shaped flowers in Spring.	Variable tree grown from seed. Hardy and suited to most soils and aspects. Fast growing, Habit more like a large shrub than a tree. Poor tolerance of root injury.	Streets, Parks & Gardens, Revegetation	Large	No
Acacia implexa	lightwood	15	10	E	N	Frost	Fast	Standard	Very similar in appearance to Blackwood but flowers in Summer.	Tolerates a wide range of soil conditions. Roots sucker profusely If disturbed therefore it is not suitable as a street tree. Poor tolerance of root injury.	Streets, Parks & Gardens, Revegetation	Large	Yes
Acacia mearnsii	Black Wattie	15	10	E	N	Frost	Fast	Standard	Erect tree with smooth bark. Pale yellow/cream flowers in summer.	Hardy and suited to most soils and aspects. Fast growing. Food source for Possums and Gliders.	Parks & Gardnes, Revegetation	Large	No
Acacia melanoxylon	Blackwood	15	10	E		Frost	Fast	Standard	Flowers in Summer	Strong-wooded and long-lived compared with other Wattles. Prefer soils that are free-draining. Good shade tree. Poor tolerance of root injury.	Streets, Parks & Gardens, Revegetation	Large	Yes
Acacia obliquinervia	Mountain Hickory Wattle	10	8	E	1	Snow, Frost, Drought	Fast	Standard	Highly ornamental	Can withstand snow and tolerates extended periods of dry.	Parks & Gardnes, Revegetation	Medium	No
Acacia pycnantha	Golden Wattle	8	6	E		Frost	Fast	Standard	Yellow ball-shaped flowers in Spring. Can be multi-stemmed from ground.	Relatively short-lived. Prefers sunny position. Poor tolerance of root injury.	Streets, Parks & Gardens, Revegetation	Medium	Yes
Acer buergerlanum	Trident Maple	6	6	D	E	N/A	Moderate	Pyramidal	Autumn colours later than most trees, providing visual interest in early winter.	Good for use in restricted spaces. Ensure trees with central leader are selected for planting. Tolerates moderate drought conditions. Does not tolerate strong hot northerly winds well.	Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes
Acer campestre Elsrijk'	маріе	7	6	D	E	N/A	Moderate	Oval	Dense and compact tree.	Adaptable to most soil conditions.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer ginnala Tlame'	Amur Maple	6	3	D	E	N/A	Fast	Vase	Dense and compact tree. Can be used for screening	Adaptable to most soil conditions.	Streets, Powerline, Parks & Gardens	Medium	No
Acer japonicum Vitifalium'	Vine-leaf Maple	6	6	D	E	N/A	Moderate	Vase	Brilliant reddish-orange autumn foliage.	Vase shaped tree. Requires a protected position. Prefers moist, well-drained soil.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer palmatum Dissectum Crimsonwave	Japanese Maple	4	4	D	E	N/A	Slow	Pendulous	Fine purple leaves that deepen in colour	Prefer moist, well drained soil in protected positions, making them better suited to protected public open spaces than exposed streets.	Streets, Powerline, Parks & Gardens	Narrow	Yes
Acer palmatum Dissectum Selyu'	Japanese Maple	4	4	D	E	N/A	Slow	Vase	Brilliant yellow-gold autumn foliage.	Prefer moist, well drained soil in protected positions, making them better suited to protected public open spaces than exposed streets.	Streets, Powerline, Parks & Gardens	Narrow	Yes
Acer palmatum 'Sango Kaku'	Japanese Maple	6	5	D	E	N/A	Slow	Vase	Brilliant yellow-orange autumn foliage.	Prefer moist, well drained soil in protected positions, moking them better suited to protected public open spaces than exposed streets.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer platanoides 'Columnare'	Norway Maple	7	4	D	E	N/A	Moderate	Columnar		Columnar form suitable for streets and narrow gardens. Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer platanoides 'Crimson Sentry'	Norway Maple	7	4	D	E	N/A	Moderate	Columnar	Attractive purple foliage	Columnar form suitable for streets and narrow gardens. Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer platanoides 'Olabiosum'	Norway Maple	5	4	D	E	N/A	Moderate	Round	Compact round form.	Hardy and tolerant of use as a street tree. Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer rubrum	Red Maple	12	9	D	E	N/A	Moderate	Pyramidal	Five-lobed leaves with red petioles. New stems are bright red. Orange to Pinkish-red foliage in Autumn.	Tolerates a wide range of conditions. Doesn't tolerate extremely dry soil. There are various cultivars available such as Tairview Rame', 'October Giory' and 'Brandywine'. Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer rubrum Brandy Wine*	Red Maple	12	9	D	E	N/A	Moderate	Pyramidal	Five-lobed leaves with red petioles. New stems are bright red. Orange to Pinkish-red foliage in Autumn.	Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Acer rubrum Tainkew Rame'	Red Maple	12	9	D	E	N/A	Moderate	Pyramidal	Five-lobed leaves with red petioles. New stems are bright red. Orange to Pinkish-red foliage in Autumn.	Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes

Tree Species								Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Follage, Fruit Bark Scent	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Acer saccharum	Silver Maple or Sugar Maple	12	9	D	E	N/A	Moderate	Pyramidal	Brilliant reddish-orange autumn foliage.	Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Acer truncatum x Acer platanoides Xeithsform	Norwegian Sunset Maple	10	7	D	E	N/A	Moderate	Vase	Brilliant reddish-orange autumn foliage.	There are other cultivars of Norway Maples (<i>Acer platanoides</i>) which have slightly different form and foliage colours and soil and climatic tolerances.	Streets, Parks & Gardens	Medium	Yes
Acer x freemanii	Freeman Maple	10	7	D	E	N/A	Moderate	Pyramidal	Brilliant reddish-orange autumn foliage.		Streets, Parks & Gardens	Medium	Yes
Acer x freemanii 'Armstrong'	Maple	13	10	D	E	N/A	Moderate	Oval	Dense and compact tree.	Adaptable to most soil conditions.	Streets, Parks & Gardens	Large	Yes
Acer x freemanii 'Celzam Celebration'	Maple	13	10	D	E	N/A	Moderate	Oval	Dense and compact tree.	Adaptable to most soil conditions.	Streets, Parks & Gardens	Large	Yes
Acer x freemanii 'Jeffersred Autumn Blaze Lipstick Tree'	Maple	13	10	D	E	N/A	Moderate	Oval	Dense and compact tree.	Adaptable to most soil conditions.	Streets, Parks & Gardens	Large	Yes
Acer x freemanii 'Scarsen Scarlet Sentiel'	Maple	13	10	D	E	N/A	Moderate	Oval	Dense and compact tree.	Adaptable to most soil conditions.	Streets, Parks & Gardens	Large	Yes
Acmena smithil	Lilly Pilly	15	8	E	N	N/A	Moderate	Standard	Deep purple fruits can make a mess when they fall.	Rainforest plant that is useful as a hedge or a single tree. Tolerates a range of soil types, but does require relatively moist soils.	Streets, Powerline, Parks & Gardens	Large	Yes
Aesculus hippocastanum	Horse Chestnut	8	5	D	E	N/A	Slow	Standard	Showy white flowers.	Useful specimen tree. Prone to heat damage	Streets, Parks & Gardens	Medium	Yes
Aesculus x carnea 'Briotil'	Red Brioti Horse Chestnut	10	7	D	E	N/A	Slow	Standard	Showy red flowers.	Useful specimen tree. Prone to heat damage	Streets, Parks & Gardens	Medium	No
Agathis australis	Kauri Tree	20	8	E	N	N/A	Fast	Pyramidal	Large tree with ornamental bark		Parks & Gardnes, Revegetation	Large	No
Agathis robusta	Kauri Pine	20	8	E	N	N/A	Fast	Pyramidal	Large tree with ornamental bark	Can be prone to co dominant leaders	Parks & Gardnes, Revegetation	Large	No
Agonis flexuosa	Willow Myrtle	10	8	E	N	N/A	Fast	Pendulous	Fragrant flowers in late Spring. There are cultivars which have dark red/purple leaves.	Tolerates a wide range of conditions, but grows best in free draining soil. Can be pruned to retain its ideal shape and can be grown in height-restricted sites.	Streets, Powerline, Parks & Gardens	Medium	Yes
Agonis flexuosa 'Burgundy'	Willow Myrtle	5	3	E	N	N/A	Fast	Pendulous	A dwarf cultivar of Agonis flexuosa		Streets, Powerline, Parks & Gardens	Medium	Yes
Agonis flexuosa "Limelight"	Willow Myrtle	8	8	E	N	N/A	Fast	Pendulous	A dwarf cultivar of Agonis flexuosa, bred to have light green to yellow follage		Streets, Powerline, Parks & Gardens	Medium	Yes
Allocasuarina littoralis	Black She-oak	10	8	E	I.	N/A	Moderate	Standard	Ornamental foliage and bark.	Male and female flowers are on separate plants, with female plants bearing small woody cones. Makes a useful shelterbelt or windbreak.	Streets, Parks & Gardens, Revegetation	Medium	Yes
Allocasuarina torulosa	Rose She-oak	10	7	E	N	Coastal Conditions	Moderate	Standard	Rusty brown colour when flowering in Autumn.	Useful screening tree if planted in large numbers. Does produce fine leaf litter and cone-like fruits.	Streets, Parks & Gardens, Revegetation	Medium	Yes
Allocasuarina verticillata	Drooping She-oak	9	5	E	N	Coastal Conditions	Moderate	Pendulous	Pendulous foliage.	Will tolerate extremely dry soils. Can appear straggly and sparse but will become more dense once mature.	Parks & Gardnes, Revegetation	Medium	Yes
Angophora costata	Smooth-barked Apple	20	15	E	N	N/A	Moderate	Standard	Grey bark with dark red flecks.	Intolerant of frost when young.	Streets, Parks & Gardens	Large	Yes
Angophra floribunda	Rough-barked Apple	15	10	E	N	N/A	Moderate	Standard	Rough bark	Can be prone to poor form, but can be fixed with formative pruning.	Streets, Parks & Gardens	Large	No
Angophra hispida	Dwarf Apple	8	6	E	N	N/A	Moderate	Standard	Dwarf cultivar of Angophra costata		Streets, Powerline, Parks & Gardens	Medium	Yes
Araucaria bidwilli	Bunya Pine	20	10	E	N	N/A	Fast	Columnar	Large confier with peeling park and edible cones	Can drop large sized cones that can weigh up to 3kgs	Parks & Gardnes, Revegetation	Large	No
Araucaria heterophylla	Norfolk Island Pine	20	10	E	N	N/A	Fast	Columnar	Very distinct foliage and tree shape.		Streets, Parks & Gardens	Large	No
Árbutus uendo	Irish Strawberry Tree	8	7	E	E	N/A	Moderate	Round	Attractive small fruits and flowers		Streets, Powerline, Parks & Gardens	Medium	No
Atherosperma moschatum	Southern Sassafras	15	10	E	I	N/A	Moderate	Standard	Sweet aromatic scent. Creamy white flowers in Autumn to Winter.	Small to medium sized tree, sometimes reaching 25m. Drought Intolerant. Requires protected sites with moist, humus rich soils. Grows well in guilles.	Parks & Gardnes, Revegetation	Large	No
										10 00 01 17			

Tree Species		Characteristics of Species									Locations and Use		
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Folioge, Fruit Bark Scent	Other comments	Suitable Location or Use	Noture Strip Size	Commercially Available
Backhousia citridora	Lemon Myrtle	8	5	E	N	N/A	Moderate	Standard	Aromatic foliage when crushed		Streets, Powerline, Parks & Gardens	Medium	Yes
Banksia integrifalia	Coast Banksia	12	6	E	N	Coastal Conditions	Moderate	Pyramidal	Pale yellow flowers. Leaves are dark green on top and silver underneath.	Useful tree in urban areas. Toierates a range of soil types and prefers full sun. Attracts nector-eating birds.	Streets, Parks & Gardens	Medium	Yes
Bedfordia arborescens	Blanket-leaf	6	4	E	1	Snow, Frost	Moderate	Standard		Prefers cool moist shaded conditions. Will tolerate full sun in moist conditions.	Parks & Gardnes, Revegetation	Medium	No
Betula nigra 'Summer Cascade'	Silver Birch	з	4	D	E	N/A	Moderate	Pendulous	Small weeping tree	Poor tolerance to root injury.	Streets, Powerline, Parks & Gardens	Narrow	Yes
Betula pendula	Silver Birch	10	5	D	E	N/A	Moderate	Pyramidal	Ornamental foliage and bark.	Poor at compartmentalisation and prone to decay. Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Betula pendula Youngii	Silver Birch	3	4	D	E	N/A	Moderate	Pendulous	Small weeping tree	Poor tolerance to root injury.	Streets, Powerline, Parks & Gardens	Narrow	Yes
Betula species and cultivars	Birch	10	5	D	E	N/A	Moderate	Pyramidal	The species 'pendula' is the Silver Birch white/silver bark. Most varieties have green leaves that turn yellow in autumn. Purple-leaved varieties are also available.	Birches commonly drop limbs and catkins making them messy street trees. Prefer moist well- drained. Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Betula utilis var. jacquemontii	Himalayan Birch	10	6	D	E	N/A	Moderate	Pyramidal	Ornamental foliage and bark.	Can drop catkins and small branches, making messy street trees. Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Brachychiton aceritolius	llawarra Flame Tree	12	7	D	N	Drought	Moderate	Pyramidal	Stunning crimson flowers in Autumn		Streets, Parks & Gardens	Medium	Yes
Brachychiton populneus	Kurrajong	10	8	E	N	N/A	Moderate	Pyramidal	Attractive flowers		Streets, Parks & Gardens	Medium	Yes
Brachychiton populensis x acentolius Bella Donna'	Bella Donna Brachychiton	5	3	E	N	Drought	Slow	Pyramidal	Pink flowers in late spring-early summer		Streets, Powerline Parks and Gardens	Narrow	Yes
Brachychiton populansis x discolor 'Gnittith Pink'	Griffith Pink Brachychiton	5	3	E	N	Drought	Slow	Pyramidal	Pink flowers in late spring-early summer		Streets, Powerline Parks and Gardens	Narrow	Yes
Brachychiton rupestris	Queensiand Bottle Tree	15	5	E	N	N/A	Moderate	Pyramidal	Attractive flowers		Streets, Parks & Gardens	Large	Yes
Caliistemon citrinus	Crimson Bottlebrush	6	4	E	N	N/A	Fost	Round	Attractive flowers that encourage birds and other pollinators.	Can require formative pruning to maintain a good form.	Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes
Callistemon oltrinus kings Park Special	Crimson Bottlebrush	4	2	E	N	N/A	Fost	Round	Attractive flowers that encourage birds and other pollinators.		Streets, Powerline Parks & Gardens, Revegetation	Narrow	Yes
Calistemon palidus	Lemon Bottlebrush	з	2	E	I	N/A	Fost	Pyramidal	Attractive flowers that encourage birds and other pollinators.		Streets, Powerline Parks & Gardens, Revegetation	Narrow	No
Calistemon salignus	Willow Bottlebrush	8	5	E	N	N/A	Fast	Pyramidal	Weeping canapy and paperbark trunk. Beautiful showy display of creamy- white bottlebrush flowers typically appearing in late Spring. There is a red flowering cultivar available called Rubra'. New foliage is pink.	Has a vigorous root system and should be planted in wide nature strips or sites that are not too close to paved areas. Can be grown in height-restricted sites.	Streets, Powerline Parks & Gardens, Revegetation	Medium	No
Calistemon viminalis	Weeping Bottlebrush	8	5	E	N	N/A	Fast	Pyramidal	Weeping canopy and paperbark trunk. Beautiful showy display of creamy- white bottlebrush flowers typically appearing in late Spring.	Can be grown in height- restricted sites.	Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes

Tree Speci	05							Charact	eristics of Species		Locatio	ns and Use	
									Special features:				
Species	Common Name(s)	Height	Width	Deciduous /	Origin	Tolerances	Growth	Form	Flowers Foliage, Fruit Bark	Other comments	Suitable Location or Use	Nature	Commercially
				Evergreen			Rate		Scent			Strip Size	Available
									Vost display of pipk flowers in	Doesn't have a vigorous root system, which makes it possible to	Streets Powerline Porks		
Calodendrum capense	Cope Chestnut	10	6	E	E	N/A	Moderate	Round	summer	plant it near paved areas. Prefers well-drained soils and may	& Gordeos	Medium	Yes
										require summer watering.			
Carpinus betulus 'Fastigata'	Common Hornbeam	10	6	D	E	N/A	Moderate	Oval	Compact oval form with no	Can be used in limited space areas	Streets, Powerline, Parks	Medium	Yes
The state of the s	Wardle Carden	10	-						central leader.		& Gardens		No.
Cedrus dilantica Glauca	Abanoc Cedar	20	15	е е	с с	N/A N/A	Moderate	Pyramidal	striking blue tologe	Good telerance of root injury	Streets, Parks & Gardens	Lorge	Yes
		20	13	-		110	Moderate	ryiumuu	Can adapt to most climates	court therein or on toxingury.	Sureita, Farka di Garderia	raiga	Tua
Celtis australis	Mediterranean Hackberry	13	10	D	E	N/A	Moderate	Standard	and is suited as a street tree	Good tolerance of root injury.	Streets, Parks & Gardens	Large	Yes
									plant				
									Can adapt to most climates				
Celtis occidentalis	American Hackberry	13	10	D	E	N/A	Moderate	Standard	and is suited as a street tree	Good tolerance of root injury.	Streets, Parks & Gardens	Large	No
									plant				
Ceratonia siliqua	Carob	10	8	E	E	N/A	Moderate	Standard	Has large fruit pods		Streets, Parks & Gardens	Medium	No
Ceratopetalum gunniferum	NSW Christmas Bush	5	4	E	N	N/A	Moderate	Round	Attractive foliage		Streets, Powerline, Parks	Medium	No
	Duranta La sel Danshara Da si								Attends a unio falle as that		& Gardens		
Cercis canadensis 'Forest Pansy'	Purple Lear Eastern Kea	5	5	D	E	N/A	Moderate	Pendulous	Attractive purple folioge that	Suits small areas where space is lacking.	Streets, Powenine, Parks	Medium	Yes
Carols canadiansis Forest Pansy	Purple Leaf Fastern Red								Attractive purple folloge that		Streets Powerline Porks		
Enchanted Forest	Bud	5	5	D	E	N/A	Moderate	Pendulous	turn golden vellow in Auturnn	Suits small areas where space is lacking.	& Gordens	Medium	Yes
						Heavy soil,					Streets, Powerline Parks		
Carcis chinansis	Chinese Rosebud	5	5	D	E	Drought	Slow	Round	Pink flowers in spring		and Gardens	Narrow	Yes
Camb abhaach Araadala'	Chinese Red Rud	2	0			auta	Madagata	Dourod	Attractive pink flowers with a	Deferre best is full sup to postial shade	Streets, Powerline, Parks	Norrow	Vec
Cercs crimersis Avonoder	Chillese ked buu	•	-		5	140	Moderate	Round	small form	Periorns best in all suf to partial shade	& Gardens	Hallow	Tus
Cinnamonum comphora	Comphor Lourel	15	10	E	E	N/A	Moderate	Round	Aromatic leaves when they are	Can be targetted by possum grazing	Streets, Powerline, Parks	Large	No
					_				crushed		& Gardens	-	
Correa lawrenceana	Mountain Correa	4	з	E	1	N/A	Moderate	Round			Parks & Gardnes,	Narrow	No
									Smooth pole gray bark is		Revegetation		
									striking. Foligge is weeping and	Small, young specimens do not tolerate frost well. Can be	Streets, Parks & Gardens,		
Corymbia citriodora	Lemon-scented Gum	20	15	E	N	N/A	Fast	Standard	long narrow leaves are lemon-	susceptible to Lerp. There are dwarf cultivars available. Prefers	Revegetation	Large	Yes
									scented.	full sun.			
Constable altriadare Reaction of	Learning an entropy of Charm					arta	Fact	Chanadana	Dwarf cultivar of Corymbia		Streets, Powerline, Parks	Marthur	Vez
Corymola clinodora scientadas	centor-scented Gam		-	· ·		140	Pust	standard	citriodora		& Gardens	Modium	Tus
Conymbia eximia	Yellow Bloodwood	10	7	E	N	N/A	Fast	Standard	Stunning masses of cream	Small, young specimens do not tolerate frost well. Tolerates a	Streets, Parks & Gardens	Medium	Yes
									flowers in Spring.	wide range of soil conditions and is good for difficult sites.			
Corymbia eximia Nana'	Yellow Bloodwood	6	4	E	N	N/A	Fast	Standard	Dwarf cultivar of Corymbia		Streets, Powerline, Parks	Medium	Yes
									eximic Shows automas flowering		& Gardens		
									There are many cultivars				
Corymbia ficifolia	Red-flowering Gum	15	10	E	N	N/A	Fast	Standard	available with various colours	Does not tolerate waterlooging and requires well-draining soil.	Streets, Parks & Gardens	Lorge	Yes
									available, including scarlet,			-	
									orange and salmon.				
									Compact dwarf cultivar of		Streets Rowedine Parks		
Corymbia ficifolia Baby Orange'	Red-flowering Gum	4	4	E	N	N/A	Fast	Standard	Corymbia ficifola, with orange		& Gordens	Narrow	Yes
									flowers				
Corymbia ficifolia 'Wild Fire'	Red-flowering Gum	6	4	E	N	N/A	Fast	Standard	Dwarf cultivar of Corymbia		Streets, Powerline, Parks	Medium	Yes
									ficitolia		& Gordens		
Corymbia maculata	Spotted Gum	20	15	E	N	N/A	Fast	Standard	Spotted trunk is very distinctive.	Small, young specimens do not tolerate frost well.	Streets, Parks & Gardens	Lorge	Yes
									Effective and common hedge				
Cupressocyparis leyiandii Madeline'	Leylandii Cypress	15	10	E	E	N/A	Moderate	Pyramidal	plant		Streets, Parks & Gardens	Large	Yes
									· · · · · · · · · · · · · · · · · · ·				

Tree Speci	os							Charact	eristics of Species		Locatio	ns and Use	
									Special features:				
Species	Common Name(s)	Height	Width	Deciduous /	Origin	Tolerances	Growth	Form	Flowers Foliage, Fruit Bark	Other comments	Suitable Location or Use	Nature	Commercially
				Evergreen			Rate		Scent			Strip Size	Available
Cupressus sempenihens	Italian Cypress	12	4	E	E	N/A	Moderate	Columnar	Tight columnar form normally used as a specimen tree	Poar talerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Erlobotrya japonica	Loquat	10	6	E	E	N/A	Fast	Standard	Fruit bearing tree with large glossy leaves		Parks & Gardnes	Medium	No
Eucalyptus bauerlana	Blue Box	20	15	E	N	N/A	Fast	Standard			Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus baxteri	Brown Stringybark	20	15	E	1	Frost	Fast	Standard		Often found on poorer soils as a low spreading tree.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus bridgesiana	Apple Box	17	13	E	1	Frost	Fast	Standard	Distinctive round, glaucous, juvenile foliage.	Has potential to help remediate gully erosion. Flowers attract nector-eating birds.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus comoldulensis	River Red Gum	25	15	E	1	N/A	Fast	Standard	Large spreading tree	Good tolerance to decay and root injury	Streets, Parks & Gardens, Revegetation	Large	Yes
Eucalyptus cephalocarpa	Silver-leaf Stringybark / Mealy Stringybark	17	13	E	1	Forst	Fast	Standard	Attractive silver-blue follage.	Spreading habit.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus consideniana	Yetchuk	20	10	E	1	N/A	Fast	Standard		Suits well-drained sandy and gravely soils of low feritility.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus croajingolensis	Gippsland Peppermint	25	15	E	1	N/A	Fast	Standard	Bluish-grey foliage with a strong peppermint smell when crushed.		Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus cypellocarpa	Mountain Grey Gum	40	20	E	1	Light frost	Fast	Standard		Grows to a very large tree under favourable conditions. Will tolerate a range of conditions, from dry plains to wet forest.	Parks & Gardnes, Revegetation	Large	No
Eucalyptus dives	Broad-leaf Peppermint	18	10	E	1	Light frost	Fast	Standard	Aromatic folioge	Good shade tree.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus elata	River Peppermint	18	10	E	N	N/A	Fast	Standard			Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus forrestiana	Fushia Gum	8	4	E	N	N/A	Fast	Standard	Attractive and prolific flowers		Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes
Eucalyptus fulgens	Green Scentbark	18	10	E	1	N/A	Fast	Standard	Thick fissured bark.	Spreading tree. Rarer species of Eucalypt	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus globoldea	White Stringybark	30	15	E	1	Light frost	Fast	Standard		Usually found on dry, shallow, rocky soils.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus globulus subsp. bicostata	Southern Blue Gum	30	20	E	I.	N/A	Fast	Standard	Blue-green juvenile foliage and very large gumnut. Roughish grey bark which is shed on upper trunk and branches in long ribbons.	Shedding of bark creates significant amount of litter making it unsultable for street tree planting.	Parks & Gardnes, Revegetation	Large	Yes
Eucalyptus kitsoniana	Gippsland Mallee	10	8	E	1	N/A	Fast	Standard			Parks & Gardnes, Revegetation	Medium	No
Eucalyptus laucoxylon	Yellow Gum	15	10	E	N	N/A	Fast	Standard	Showy yellow flowers, but there are pink-flowered forms such as 'Rosea'.	Size of tree varies depending on provenance, cultivar and seed selection. Euky Dwarf is one of the dwarf cultivars available. Species is prone to poor branch attachment.	Streets, Parks & Gardens, Revegetation	Large	Yes
Eucalyptus laucoxylon Euky Dwarf	Yellow Gum	6	5	E	N	N/A	Fast	Standard	Showy yellow flowers.	Prone to poor form so formative pruning is required.	Streets, Powerline, Parks & Gardens	Medium	Yes
Eucalyptus leucoxylon Rosea'	Yellow Gum	12	7	E	N	N/A	Fast	Standard	Showy pink flowers		Streets, Parks & Gardens	Medium	Yes
Eucalyptus leucarylan ssp. Megalocarpa 'Elte'	Large Fruited Yellow Gum	8	5	E	N	N/A	Fost	Standard	Showy yellow flowers.		Streets, Powerline, Parks & Gardens	Medium	Yes
Eucalyptus mannifera	Red Spotted Gum	15	10	E	N	N/A	Fast	Standard	White trunk with reddish flecks.	Little Spotty is one of the dwarf cuttivars available. Does not tolerate waterlogging and requires well-draining soil.	Streets, Parks & Gardens, Revegetation	Large	Yes
Eucalyptus mannifera Little Spotty'	Red Spotted Gum	7	5	E	N	N/A	Fast	Standard	White trunk with reddish flecks.		Streets, Powerline, Parks & Gardens	Medium	Yes

Tree Speci	es							Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Foliage, Fruit Bark Boent	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Eucalyptus mellodora	Yellow Box	20	15	E	N	Frost	Fost	Standard	The bark, which is brown and fibrous peels off revealing a smooth, white underbark.	Too large for typical residential streets. Size of tree varies depending on provenance, cultivar and seed selection. Prefers well-draining soll. Frost tolerant.	Streets, Parks & Gardens	Large	Yes
Eucalyptus muelleriana	Yellow Stringybark	20	15	E	1	N/A	Slow	Standard		Slow-growing tree.	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus nicholl	Willow-leaf Peppermint	15	10	E	N	N/A	Fost	Standard		Can be prone to poor form and bark inclusions	Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus obliqua	Messmate	25	15	E	1	Snow, Frost	Fost	Standard		Too large for typical residential streets. Grows on a wide variety of soil types. Varies in form.	Parks & Gardnes, Revegetation	Large	No
Eucalyptus alivacea 'Summer Scentstion	Granite Mallee	6	4	E	N	N/A	Fast	Standard	Bird attracting flowers		Streets, Powerline Parks & Gardens, Revegetation	Medium	No
Eucalyptus ovata	Swamp Gum	17	12	E	1	Frost	Fost	Standard		Koala habitat.	Parks & Gardnes, Revegetation	Large	Yes
Eucalyptus paucifiora Littie Snowman'	Dwarf Snow Gum	7	5	E	N	N/A	Fast	Standard	Flowers attract pollinators		Streets, Powerline, Parks & Gardens	Medium	Yes
Eucalyptus paucifiora Nona'	Dwarf Snow Gum	7	5	E	N	N/A	Fost	Standard	Flowers attract pollinators	A cultivar that has been bred to have improved form an structure on 'Little Snowman'	Streets, Powerline, Parks & Gardens	Medium	Yes
Eucalyptus polyanthemos	Red Box	15	12	E	N	Frost	Fost	Standard	Flowers during spring to early summer.	Useful in large avenues and streets and parks.	Streets, Parks & Gardens	Large	Yes
Eucalyptus pryoriana	Gippsland Manna Gum	15	12	E	1	N/A	Fost	Standard			Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus radiata	Narrow-leaved Peppermint	25	15	E	1	Snow, Frost	Fost	Standard	Heavy bearer of seed.	Widespread on poorer, shallow soils. Potential koala habitat	Parks & Gardnes, Revegetation	Large	Yes
Eucalyptus regnans	Mountain Ash	40	20	E	1	Snow, Frost	Fast	Standard		Very large tree that requires plenty of space. Potential koala and leadbeaters possum habitat	Parks & Gardnes, Revegetation	Large	No
Eucalyptus scoparia	Wallangarra White Gum	15	10	E	N	N/A	Fast	Standard			Streets, Parks & Gardens	Large	Yes
Eucalyptus sideroxylon	Red Ironbark	15	10	E	N	N/A	Fast	Standard	Rowers during Winter. Deeply fissured bark is a rusty red beneath and black on the surface.	Performs well in urban areas and is relatively tolerant to frost. Co- dominant leaders are common.	Streets, Parks & Gardens	Large	Yes
Eucalyptus sideroxylon Rosea'	Red Ironbark	15	10	E	N	N/A	Fast	Standard	Rowers during Winter. Deeply fissured bark is a rusty red beneath and black on the surface.	Performs well in urban areas and is relatively tolerant to frost. Co- dominant leaders are common.	Streets, Parks & Gardens	Large	Yes
Eucalyptus sleberi	Silver-top Ash	25	15	E	1	Snow, Frost	Fost	Standard		Large tree usually found on drier ridges.	Parks & Gardnes, Revegetation	Large	No
Eucalyptus strzelecki	Strzelecki Gum	25	15	E	1	N/A	Fast	Standard		Tree species that is vulnerable in Victoria and Australia. Only found naturally in West and South Gippsiand.	Parks & Gardnes, Revegetation	Large	No
Eucalyptus tereticomis	Gippsland Red Gum	30	25	E	1	N/A	Fost	Standard	Large open canopy, similar to Eucolyptus camaldulensis		Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus torquata	Corol Gum	5	4	E	N	N/A	Fost	Standard			Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes
Eucalyptus torquata Torwood	Hybris Coral Gum	8	з	E	N	N/A	Fast	Standard			Streets, Powerline Parks & Gardens, Revegetation	Medium	Yes
Eucalyptus tricarpa	Red Ironbark	18	10	E	N	N/A	Fast	Standard	Rowers attract pollinators		Streets, Parks & Gardens, Revegetation	Large	No
Eucalyptus viminalis	Manna Gum	30	20	E	1	Frost	Fast	Standard	Flowers during summer to outumn.	Koala habitat.	Parks & Gardnes, Revegetation	Large	Yes
Eucalyptus yarraensis	Yarra Gum	15	12	E	1	Frost, minor flooding	Fost	Standard		Rarer species endemic to Victoria	Parks & Gardnes, Revegetation	Large	No

Tree Speci	0 \$							Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Foliage, Fruit Bank Scent	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Fagus sylvatica 'Autopurpunea'	Eurpoean Beech	10	7	D	E	N/A	Moderate	Round	Beautiful dark purple leaves provide visual interest through spring and summer. Attractive, smooth grey bark. Coppeny- brown follage in Autumn.	Prefers moist soils, but tolerates some dryness. Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Fagus sylvatica £ Pupunea	Copper or Purple Beech	10	7	D	E	N/A	Moderate	Round	Beautiful dark purple leaves provide visual interest through spring and summer. Attractive, smooth grey bark. Coppery- brown foliage in Autumn.	Prefers moist solls, but tolerates some dryness. Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Ficus macrophylla	Moreton Bay Fig	20	25	E	N	N/A	Moderate	Pendulous	Large spreading tree, typically used as a specimen tree in parks	Extensive root system which makes it unsuitable for anything but parks planting.	Parks & Gardnes	Large	No
Ficus microcarpa var. hilli	HII's Weeping Fig	8	5	E	N	N/A	Moderate	Pendulous	Smooth grey trunk and glossy green foliage.	Cultivar typically used for hedging	Streets, Powerline, Parks & Gardens	Medium	Yes
Ficus microcarpa var. hilli	Hil's Weeping Fig	15	8	E	N	N/A	Moderate	Pendulous	Smooth grey trunk and glossy green foliage.	Careful establishment may be required to harden off trees and acclimatise them to the local climate if they are grown in Northern Australia. Once acclimated, Weeping Figs can tolerate a very wide range of urban conditions.	Parks & Gardnes	Large	Yes
Ficus rubiginosa	Port Jackson Fig	20	25	E	N	N/A	Moderate	Pendulous	Smooth grey trunk and glossy green foliage.		Parks & Gardnes	Large	No
Fraxinus angustifolia ssp. oxycarpa 'Raywood'	Claret Ash	12	7	D	E	N/A	Fast	Standard	Claret coloured foliage in Autumn	Moderate tolerance of root injury.	Streets, Parks & Gardens	Medium	Yes
Fraxinus griffithil	Evergreen Ash	8	4	E	E	Drought	Fast	Standard	Ash cultivar that is evergreen	Moderate tolerance of root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Fraxinus pennsylvanica 'Cimmaron'	Green Ash	13	8	D	E	N/A	Moderate	Pyramidal	Compact from allowing for planting as a street tree	Hardy and tough once esthablished. Moderate tolerance of root injury.	Streets, Parks & Gardens	Large	Yes
Fraxinus pennsylvanica 'Climmzam Climmaron'	Green Ash	13	8	D	E	N/A	Moderate	Pyramidal	Compact from allowing for planting as a street tree	Hardy and tough once established. Moderate tolerance of root injury.	Streets, Parks & Gardens	Large	Yes
Fraxinus pennsylvanica Urbaniteh'	Green Ash	13	8	D	E	N/A	Moderate	Pyramidal	Compact from allowing for planting as a street tree	Hardy and tough once esthablished. Moderate tolerance of root injury.	Streets, Parks & Gardens	Large	Yes
Geljera parvitlara	Native Willow	9	8	E	N	N/A	Slow	Round	Aromatic flowers		Streets, Powerline, Parks & Gardens	Medium	Yes
Ginkgo biloba	Maidenhair Tree	12	5	D	E	N/A	Slow	Columnar	Very attractive yellow autumn foliage.	Very slow growing tree. Does not tolerate extended periods of dry soil.	Streets, Powerline, Parks & Gardens	Medium	Yes
Ginkgo biloba Lemonlime Spire'	Maidenhair Tree	5	1	D	E	N/A	Slow	Columnar	Fastigate cultivar of Ginkgo biloba		Streets, Powerline, Parks & Gardens	Medium	Yes
Gleditsia triacanthos	Honeylocust	8	8	D	E	N/A	Fast	Penulous	Dense weeping canopy of golden folioge	Suitable to most urban landscapes. Moderate tolerance to root Yijury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Gleditsia triacanthos Elegantissima'	Honeylocust	5	4	D	E	N/A	Slow	Pyramidal	Dense and compact tree.	Autable to most urban landscapes. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Gleditsia triacanthos Lime Green'	Honeylocust	8	8	D	E	N/A	Fast	Penulous	Dense weeping canopy of golden folioge	Suitable to most urban landscapes. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Glealitsia triacanthos 'Sunburst'	Honeylocust	8	8	D	E	N/A	Fast	Penulous	Dense weeping canopy of golden folioge	Suitable to most urban landscapes. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Gleditsla triacanthos var. Inermis Ruby Lace'	Honeylocust	8	8	D	E	N/A	Fast	Penulous	Finely dissected folioge that turns yellow in Autumn.	There are a number of cultivars available, some of which are thomiess. Honeylocust tolerates a wide range of conditions, but prefers well-drained soil. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Gleditsia triacanthos var. inermis 'Sunburst'	Honeylocust	8	8	D	E	N/A	Fast	Penulous		Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes

Tree Specie	95							Charact	eristics of Species		Locations and Use		
									Special features:				
Species	Common Name(s)	Height	Width	Deciduous /	Origin	Tolerances	Growth	Form	Flowers Foliage, Fruit Bark	Other comments	Suitable Location or Use	Noture	Commercially
				Evergreen			Rote		Scent			Strip Size	Available
Grøvillea rabusta	Silky Oak	20	10	E	N	N/A	Fast	Standard	Large tree prone to small limb failures, but with hardy vigour		Streets, Parks & Gardens	Large	No
Hakea francisiana	Grass-Leaved Hakea	5	5	E	N	N/A	Fast	Standard	Attractive flowers, usually bright pink		Streets, Powerline, Parks	Medium	Yes
Hakea laurina	Pin Cushion Hakea	5	5	E	N	N/A	Fast	Standard	Attractive flowers, usually bright pink		Streets, Powerline, Parks & Gardens	Medium	Yes
Hakea multilienata	Grass-Leaved Hakea	5	5	E	N	N/A	Fast	Standard	Attractive flowers, usually bright pink		Streets, Powerline, Parks & Gardens	Medium	Yes
Hakea salicifalia	Willow-Leaved Hakea	5	5	E	N	N/A	Fast	Standard	Attractive flowers, usually white		Streets, Powerline, Parks & Gardens	Medium	Yes
Hymanosporum flavum	Native Frangipani	8	6	E	N	N/A	Fast	Standard	Aromatic flowers		Streets, Powerline, Parks & Gardens	Medium	Yes
Jacaranda mimositolia	Jacaranda	10	8	D	E	N/A	Fast	Standard	Attractive purple flowers and dissected foliage.	Small, young specimens do not tolerate frost well.	Streets, Powerline, Parks & Gardens	Medium	Yes
Koeleuteria paniculata	Golden Rain Tree	6	4	D	E	N/A	Slow	Standard	Multi-seasonal interest provided by bronze/gold autumn foliage and yellow flowers in Summer.	Slow-growing tree that may require irrigation during establishment. Best grown in well-managed sites in full-sun.	Streets, Powerline, Parks & Gardens	Medium	Yes
Lagerstroemia Indica	Crepe Myrtie	5	4	D	E	N/A	Moderate	Vase	A variety of different coloured flowering cultivars are available. Many cultivars have peeling bark that is very attractive. Different cultivars also have distinctive habits, with some relatively narrow and other quite broad.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	Streets, Powerline, Parks & Gardens	Medium	Yes
Lagerstroemia indica x fauriel Lipan'	Crepe Myrtie	5	4	D	E	N/A	Moderate	Vase	Attractive species available in a range of colours.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	Streets, Powerline, Parks & Gardens	Medium	Yes
Lagerstroemia indica x fauriel Natchez'	Crepe Myrtie	5	4	D	E	N/A	Moderate	Vase	Attractive species available in a range of colours.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	Streets, Powerline, Parks & Gardens	Medium	Yes
Lagerstroemia indica x fauriel 'Sloux'	Crepe Myrtie	5	4	D	E	N/A	Moderate	Vase	Attractive species available in a range of colours.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	Streets, Powerline, Parks & Gardens	Medium	Yes
Lagerstroemia indica x fauriel Tascarora'	Crepe Myrtie	5	4	D	E	N/A	Moderate	Vase	Attractive species available in a range of colours.	Can be grown in height- restricted sites. Most selections of Lagerstroemia are now resistant to Powdery Mildew, which has been a problem in the past.	Streets, Powerline, Parks & Gardens	Medium	Yes
Laurus nobilis	Bay Tree	7	4	E	E	N/A	Moderate	Standard	Leaves can be used in cooking		Streets, Powerline, Parks & Gardens	Medium	Yes
Leptospermum continentale	Prickly Tea Tree	4	2	E	N	Snow, Frost	Moderate	Standard	Can be pruned to be utilised in urban environments successfully		Streets, Powerline, Parks & Gardens	Narrow	Yes
Laptospermum petersonii	Lemon Scented Teo Tree	4	2	E	N	Snow, Frost	Moderate	Standard	Aromatic leaves when they are crushed		Streets, Powerline, Parks & Gardens	Narrow	Yes
Liquidambar styraciflua	Sweet Gum	15	10	D	E	N/A	Moderate	Pyramidal		Poor tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Liquidamber styracittua 'Dakville Highlight'	Sweet Gum	15	4	D	E	Heat and light drought	Moderate	Columnar	Tight compact form	Large shallow root system. Poor tolerance to root injury.	Streets, Parks & Gardens	Large	Yes
Liquidamber styraciflua Siender Silhouette'	Sweet Gum	12	3	D	E	Heat and light drought	Moderate	Columnar	Tight compact form	Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Liquidamber styracillua Warplesdon'	Sweet Gum	12	3	D	E	Heat and light drought	Moderate	Columnar	Tight compact form	Poor tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Liniodienatron tulipitiera	Tulip Tree	15	10	D	E	N/A	Moderate	Standard	Striking solitary flowers.	Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	Yes

Tree Species			Characteristics of Species)
				Dealthraw I			Comute.		Special features:			No.	Communitation (
Species	Common Name(s)	Height	Width	Deciduous /	Origin	Tolerances	Bote	Form	Flowers Foliage, Fruit Bark	Other comments	Suitable Location or Use	Noture Chile class	Commercially
				Evergreen			MOLE		Scent			sarip size	Avdidbie
									Medium sized tree with				
Loohostemon confertus	Brush Box	20	10		N	N/A	Fost	Stondard	rounded head and attractive	The trees do not arow an extensive root system	Streets, Powerline, Parks	Loroe	Ves
coprise and the contract contract		20	10				- Gat	and rotatio	bark and mid-dark green	The rest of the grow of the and the system.	& Gardens	raige	103
									glossy leaves.				
									Excellent specimen tree				
Managia cutturars (deciduraus)	Magnalia	10			F	N/A	Slow	Ovel	because of their magnificent	Most Magnolias do not tolerate root disturbance and are better	Streets Parks & Gardeos	Medium	Ves
magnesis contrars (concours)	mag note	10	Ŭ	Ŭ				010	display of flowers and autumn	suited to public open spaces than in streets.			103
									colour.				
										Evergreen Magnolias prefer well- drained soil and may require			
Maanola arandifora	Evergreen Magnolia or Bull	10	8	F	F	N/A	Slow	Ovol	Large, glossy green leaves with	some summer irritation whilst establishing. Little Gem' is one of	Streets, Parks & Gardens	Medium	Yes
	Bay Magnolia		-		-				bronze underside.	the dwarf cultivars available with very compact arowth.			
										,, ,,, ,,, ,.			
	Evergreen Magnolia or Bull								Large glossy freen leaves,	Prone to heat damage, but will tolerate acidic solls. Poor			
Magnolia granditiora Little Gem'	Bay Magnolia	10	5	E	E	N/A	Slow	Pyramidal	attractive large flower.	tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
									Compact form				
Magnolla granditlora M9719	Evergreen Magnolia or Bull								Large glossy freen leaves,	Prone to heat damage, but will tolerate acidic soils. Poor			
Greenback'	Bay Magnolia	10	5	E	E	N/A	Slow	Pyramidal	attractive large flower.	tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
									Compact form				
Malus floribunda	Crabappie	6	5	D	E	N/A	Moderate	Round	Fragrant flowers with small	Suitable to a range of conditions but prefers moist-well drained,	Streets, Powerline, Parks	Medium	Yes
									ornamental fruits.	slightly acidic soils. Moderate tolerance to root injury.	& Gordens		
Malus loensis 'Plena'	Crabappie	6	5	D	E	N/A	Moderate	Round	Fragrant flowers with small	Suitable to a range of conditions but prefers moist-well drained,	Streets, Powerline, Parks	Medium	Yes
									ornamental fruits.	slightly acidic soils. Moderate tolerance to root injury.	& Gordens		
Malus loensis Rubra'	Crabapple	6	5	D	E	N/A	Moderate	Round	Fragrant flowers with small	suitable to a range of conditions but prefers moist-well drained,	Streets, Powerline, Parks	Medium	Yes
									ornamental fruits.	slightly acidic solls. Moderate tolerance to root injury.	& Gardens		
Malus 'Sutyzam Sugar Tyme'	Crabapple	6	5	D	E	N/A	Moderate	Round	Fragrant nowers with small	suitable to a range or conditions but prefers moist-weil arained,	streets, Powenine, Parks	Medium	Yes
									ornamental fruits.	slightly acidic soils. Moderate tolerance to root injury.	& Gardens		
Malus tschonoski	Crabapple	6	5	D	E	N/A	Moderate	Round	Great autumn foliage colour.	Narrow, upright tree. Moderate tolerance to root injury.	streets, Powenine, Parks	Medium	Yes
											Streets Rowedine Parks		
Melaleuca armiliaris	Bracelet Honey Myrtle	6	7	E	N	Wind, Salt	Fast	Standard	Attractive flowers	Adaptable to most soil conditions.	E. Gordon	Medium	Yes
									Prolific create coloured flowers		Streets Powerline Porks		
Melaleuca ericifolia	Swamp Paperbark	8	5	E	N	Frost	Moderate	Standard	October-November	Can be restricted in size in dry conditions	& Gardens	Medium	No
									Prolific cream coloured flowers		Streets, Powerline, Parks		
Melaleuca linarifolia	Snow in Summer	10	10	E	N	N/A	Moderate	Round	October-November		& Gardens	Medium	Yes
											Streets, Powerline, Parks		
Melaleuca squarrosa	Scented Paperbark	10	10	E	N	N/A	Moderate	Round			& Gordens	Medium	No
											Streets, Powerline, Parks		
Melaleuca styphelioides	Prickly-leaf Paperbark	10	10	E	N	N/A	Moderate	Round			& Gardens	Medium	Yes
									Small, broad tree with vivid	Fruit drop is a significant problem as it is a tripping hazard.			
Melia azedarach	White Cedar	10	8	D	N	N/A	Moderate	Standard	green foliage and liac flowers	However, there are now low fruiting cultivars available, such as	Streets, Powerline, Parks	Medium	Yes
									in late spring.	'Elito'.	& Gardens		
						nte			Attractive purple flowers and		Streets, Powerline, Parks		
Melia azeaarach Ulac Lady	White Cedar	10	8	D	N	N/A	Moderate	Pendulous	dissected foliage.	Low truting clutivar	& Gardens	Medium	Yes
Matter and descent to the f	White Contra	10		_		21/2		Day and	Attractive pink flowers and	Laur facilita a statione	Streets, Powerline, Parks		Vez
mana azocanach 200	made Celocar	10	*	U	N	N/A	Moderate	Round	dissected folioge.	Low nating clanar	& Gardens	Mudum	105
Manin alba Readula'	Weeping Mulberry	2	4	D	F	Dry soll	Moderate	Banchuloure	Small weeping tree	Cap be grown in a range of conditions	Streets, Powerline, Parks	Norow	Voc
monus cauto r toracito	marging marging	3	-		÷	bry son	mouercue	2 of Guods	anna macha 9 ann	our or grown in a range or conditions	& Gardens	HUITOW	1473
Nothofagus au poloabarail	Muttle Beach	25	15	F	1	Snow Front	Moderate	Standard		Ornamental tree for high rainfall areas. Does not tolerate dry	Parks & Gardnes,	Large	No
noo nagaa caraa gaana	ange of the second	20		ŕ	· · ·	anioni, rivat	mouthard	standard		conditions, particularly during establishment.	Revegetation	re-Ba	
Nvssa svivatica	Black Tupelo	10	5	P	F	N/A	Moderate	Pyramidal	Attractive Autumo folicoe	Hardy once established. Moderate tolerance to root ink ry	Streets, Powerline, Parks	Medium	Yes
			-	-				- provinced	and the second second		& Gordens		
Nyssa sylvatica NXSXF Forum'	Block Tupelo	10	5	P	F	N/A	Moderate	Pyramidal	Attractive Autumo folicoe.	Hardy once established. Moderate talerance to root inkiny	Streets, Powerline, Parks	Medium	Yes
										,	& Gardens		

Tree Speci	8 5							Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deckluous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Folioge, Fruit Bark Scent	Other comments	Suitable Location or Use	Noture Strip Size	Commercially Available
Olea europa 'Swan Hill'	Olive Tree	6	4	E	E	Encroachment s into TPZ	Moderate	Round	Fruitiess cultivar.	Hardy and tolerant of encroachments and pruning	Streets, Powerline, Parks & Gardens	Medium	Yes
Olea europa Tollys Upright'	Olive Tree	6	4	E	E	Encroachment s into TPZ	Moderate	Round	Fruitiess cultivar.	Hardy and tolerant of encroachments and pruning	Streets, Powerline, Parks & Gardens	Medium	Yes
Parrotia persica	Persian ironwood	7	5	D	E	Minor heat	Moderate	Pyramidal	Attractive Autumn foliage.	Can be damage by hot winds whilst establishing, but will grow in most conditions.	Streets, Powerline, Parks & Gardens	Medium	Yes
Photinia x fraseri 'Robusta'	Christmas Berry	10	8	E	N	N/A	Moderate	Standard	Hardy tree once established	Good tolerance to decay and root injury	Streets, Powerline, Parks & Gardens	Medium	Yes
Pinus canariensis	Canary Island Pine	20	10	E	E	N/A	Moderate	Pyramidal	Large pine cones	Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	No
Pinus halapensis	Aleppo Pine	10	8	E	E	N/A	Moderate	Pyramidal	Reddish coloured bark		Streets, Parks & Gardens	Medium	No
Pinus pinea	Italian Stone Pine	10	8	E	E	N/A	Moderate	Pyramidal			Streets, Parks & Gardens	Medium	No
Pistachia chinensis	Chinese Pistochio	8	6	D	E	N/A	Moderate	Round	Extremely colourful autumn foliage turning from green to red.	Difficult to find specimens with one central leader and is therefore better used in public open spaces instead of streets.	Streets, Parks & Gardens	Medium	Yes
Pittosporum bicolour	Banyalla	7	4	E	N	Snow, Frost	Slow	Standard	Single bell shaped flowers, yellow and marcon in colour	Prefers shaded areas such as mountain forests and fern gullies.	Parks & Gardnes, Revegetation	Medium	No
Platanus orientalis	Oriental Plane	15	15	D	E	Encroachment s into TPZ	Moderate	Standard	Very attractive mottled brown/grey bark. Large green leaves turning yellow in Autumn.	Avoid seeding stock because the form and branch attachment can vary significantly. There are various cultivars available such as 'Autumn Glory'. High tolerance to dry soil conditions and frost. Suitable for large streets/avenues. Good tolerance to decay and root injury.	Streets, Powerline, Parks & Gardens	Large	Yes
Platanus orientalis 'Digitata'	Oriental Plane	15	15	D	E	Encroachment s into TPZ	Moderate	Standard		Good tolerance to decay and root injury.	Streets, Powerline, Parks & Gardens	Large	Yes
Platanus x acerifolia	London Plane	15	15	D	E	Encroachment s into TPZ	Moderate	Standard	Very attractive mottled brown/grey bark. Large green leaves turning yellow in Autumn.	Avoid seedling stock because the form and branch attachment can vary significantly. There are various cultivars available such as 'Bloodgood', 'Columbia' and 'Liberty'. High tolerance to dry soil conditions and frost. Suitable for large streets/avenues.	Streets, Powerline, Parks & Gardens	Large	Yes
Populus euramericanaxnigra 'Crows Nest'	Lombardy Poplar	18	4	D	E	N/A	Fast	Columnar	Cultivar of Lombardy Poplar more resistant to decay and diseas	Moderate tolerance to root injury.	Parks & Gardnes	Large	Yes
Populus nigra Italica'	Lombardy Poplar	20	4	D	E	N/A	Fast	Columnar		Susceptible to decay and disease. Poor tolerance to root injury and decay	Parks & Gardnes	Large	Yes
Prunus cerasifera	Purple Leaf Cherry	6	4	D	E	N/A	Moderate	Vase	Attractive foliage and prolific flowers	Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Prunus cerasifera Nigra'	Purple-Leaf Cherry	6	4	D	E	N/A	Moderate	Vase	Attractive foliage and prolific flowers	Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Prunus cerasifera 'Oakville Crimson Spire'	Purple-Leaf Cherry	6	3	D	E	N/A	Moderate	Columnar	Attractive purple folioge and prolific flowers	Compact from suited to screening and street tree planting. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Prunus cultivars	Flowering Plum	6	4	D	E	N/A	Moderote	Vase	Most cultivars have spectacular flowers. Flowers range in colour from white, pink and red. Leaves and autumn colours vary signficantly between cultivars.	Form of tree varies and can be upright, weeping, vase-shaped, etc. It is important to select cultivars that are less susceptible to leaf curi, canker and borer, which can affect some Plum trees. Popular cultivars include: 'Shirotae' (syn. Mt Fuji'), <i>Prunus</i> <i>fruticesa</i> 'Globosa', <i>Prunus cenzelfera</i> 'Crimson Spire'.	Streets, Powerline, Parks & Gardens	Medium	Yes
Prunus x bilteana	Double-Rose Cherry Plum	6	4	D	E	N/A	Moderate	Vase	Attractive foliage and prolific flowers	Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Pyrus betullfolia 'Southworth Dancer'	Callery Pear	7	5	D	E	N/A	Moderate	Pyramidal	Prolific flowering.	Adaptable to most soil conditions.	Streets, Powerline, Parks & Gardens	Medium	Yes

Tree Speci	ies							Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deciduous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Follage, Fruit Bark Scent	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Pyrus callery:ana cultivars	Callery Pear	12	6	D	E	N/A	Fast	Pyramidal	Mass of beautiful white flowers in Spring. Gold to red, to burgundy folioge in Autumn.	There are many cultivars of varying sizes and habit including 'Aristocrat', 'Capital' and 'Chanticleer'. In general Callery Pears tolarates a wide range of conditions including dry soils. However, they do have a tendency to lose limbs in storm events particularly when they have heavy fruit set. Cultivars that are tolarant of windy conditions and have good branch attachment should be selected.	Streets, Powerline, Parks & Gardens	Medium	Yes
Quercus canariensis	Algerian Oak	15	18	D	E	N/A	Slow	Round		Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	No
Quarcus carris	Turkey Oak	15	18	D	E	N/A	Slow	Round		Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Quercus coccinea	Scarlet Oak	15	18	D	E	N/A	Slow	Round	Large, rounded tree with very vivid deep scarlet red foliage in Autumn.	Relatively tolerant of dry, gravelly/sandy soils with low organic matter. Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	No
Quercus dentata	Korean Oak	15	18	D	E	N/A	Slow	Round		Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Quercus palustris	Pin Oak	20	15	a	E	N/A	Moderate	Standard	Large Oak with deeply lobed green leaves that turn crimson in Autumn.	Trees hold onto leaves for extended period before falling and young trees may return foliage during winter. There are cultivars now available which defoliate early. They also tolerate sites that have extended wet periods during winter. They may require imigation in summer months. There is a columnar cultivar available. Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	Yes
Quercus palustris 'Green Pillar'	Pin Oak	14	з	D	E	N/A	Moderate	Columnar	Tight compact form	Ideally suited for use as a street tree and in areas with limited space. Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Quercus rabur	English Ook	15	18	D	E	N/A	Moderate	Standard	Large ook with small acoms. Has a wide spreading form and is a storng feature or avenue tree	Trees hold onto leaves for extended period before failing and young trees may return faliage during winter. There are cultivars now available which defoliate early. They also tolerate sites that have extended wet periods during winter. They may require imgation in summer months. There is a columnar cultivar available. Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	Yes
Quercus rubra	Red Oak	10	9	D	E	N/A	Fast	Standard	Acorns/Dark brown bark. Red to golden brown foliage in Autumn.	Probably doesn't provide as much year round interest as other species listed. Moderate tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Schinus molle	Peruvian Peppercom	15	15	E	E	N/A	Fast	Pendulous	Aromatic leaves and weeping form.	Highly susceptible to decay, but also has high vigour and can successfully live with hig levels of decay for many years	Streets, Parks & Gardens	Large	Yes
Sorbus aucuparia	Rowan	12	6	D	E	N/A	Fast	Round		Moderate tolerance to root injury.	Streets, Parks & Gardens	Medium	No
Stenocarpus sinuatus	Fire Wheel Tree	8	4	E	N	N/A	Moderate	Columnar	Striking red floral clusters		Streets, Parks & Gardens	Medium	No
Taxodium distichum	Baid Cypress	15	10	D	E	N/A	Moderate	Pyramidal	Deciduous conifer with striking foliage	Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	Yes
Tilia cordata	Linden	9	6	D	E	N/A	Moderate	Pyramidal	Strong central leader with pyramidal form	Moderate tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
7.lla cordata 'Greenspire'	Linden	9	6	D	E	N/A	Moderate	Pyramidal	Strong central leader with pyramidal form	Moderate tolerance to root injury.	Streets, Parks & Gardens	Medium	Yes
Tristianiapsis laurina	Kanooka	8	6	E	N	N/A	Moderate	Standard	Fine brown bark that exfoliates to reveal smooth cream beneath.	Versatile tree that grows in a wide range of conditions. Responds well to pruning if required. Good tolerance to root injury.	Streets, Powerline, Parks & Gardens	Medium	Yes
Ulmus glabra Tutescens'	Golden Elm	15	15	D	E	N/A	Slow	Round	Golden foliage in a weeping canopy form	Can be prone to decay, but has good compartmentalization. Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Ulmus minar	English Elm	15	15	D	E	N/A	Slow	Round		Can be prone to decay, but has good compartmentalization. Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Ulmus minar Varigata'	Variegated English Eim	15	15	D	E	N/A	Slow	Round	Vibrant variegated foliage	Can be prone to decay, but has good compartmentalization. Moderate tolerance to root injury.	Streets, Parks & Gardens	Lorge	Yes
Ulmus parvitolia	Chinese Elm	10	13	SD	E	N/A	Moderate	Round	Attractive mottled orange- brown peeling bark.	Rapidly growing tree that tolerates range of conditions. Trees can develop more than one dominant leader which can present problems. May require regular irrigation in summer.	Streets, Parks & Gardens	Medium	Yes
Ulmus parvitalia Burnely Select'	Chinese Elm	10	13	SD	E	N/A	Moderate	Round	Attractive mottled orange- brown peeling bark.		Streets, Parks & Gardens	Medium	Yes

Tree Speci	es							Charact	eristics of Species		Locatio	ns and Use	
Species	Common Name(s)	Height	Width	Deckluous / Evergreen	Origin	Tolerances	Growth Rate	Form	Special features: Flowers Foliage, Fruit Bark Scent	Other comments	Suitable Location or Use	Nature Strip Size	Commercially Available
Ulmus parvifolia 'Churchyara'	Chinese Elm	10	13	SD	E	N/A	Moderate	Round	Attractive mottled orange- brown peeling bark.		Streets, Parks & Gardens	Medium	Yes
Ulmus parvitolia Murrays Form'	Chinese Elm	10	13	SD	E	N/A	Moderate	Round	Attractive mottled orange- brown peeling bark.		Streets, Parks & Gardens	Medium	Yes
Ulmus parvitolia Toda'	Chinese Elm	10	13	SD	E	N/A	Moderate	Round	Attractive mottled orange- brown peeling bark.	Cultivar bred to establish single leader.	Streets, Parks & Gardens	Medium	Yes
Ulmus procera	English Elm	16	10	D	E	N/A	Moderate	Round	High heritage significance as this tree is commonly planted in Melbourne and other older areas of Victoria.	Can be prone to decay, but has good compartmentalization. Moderate tolerance to root injury.	Streets, Parks & Gardens	Large	Yes
Waterhousea floribunda	Weeping Lillypilly	10	8	E	N	N/A	Moderate	Standard	Attractive weeping folioge		Streets, Powerline, Parks & Gardens	Medium	Yes
Zelkova serrata 'Golden Flame'	Zelkova	10	9	SD	E	N/A	Moderate	Vase	Beautiful shade tree, with attractive bright green, serrated leaves. Attractive, smooth grey bark.	Highly adaptable to different soils. Doesn't tolerate very wet sites.	Streets, Powerline, Parks & Gardens	Medium	Yes
Zeikova serrata 'Green Vase'	Zelkova	10	9	SD	E	N/A	Moderate	Vase	Beautiful shade tree, with attractive bright green, serrated leaves. Attractive, smooth grey bark.	Highly adaptable to different soils. Doesn't tolerate very wet sites.	Streets, Powerline, Parks & Gardens	Medium	Yes

5.2 Appendix 2 – Tree Planting Standard Detail





Advanced Tree Planting Detail

DATE: May 2024

SCALE: NTS