

BENALLA RURAL CITY

DRAFT TREE ASSET AND MAINTENANCE MANAGEMENT PLAN

2018 - 2021

Contents

1. EXECUTIVE SUMMARY	4
3. POLICY COMMITMENTS.....	6
3.1 Guidance to Community, Council and Staff in development, maintenance and removal of trees 6	
3.1.1 Development of Urban Trees – Streets, Parks and Reserves	6
3.1.1.1 Care and Maintenance	6
3.1.1.2 Plantings General	7
3.1.1.3 Approved Tree Planting Register	9
3.1.1.4 Planting Principles	9
3.1.1.5 Planting in Carparks	10
3.1.1.6 Planting Stock Quality.....	11
3.1.1.7 Timing of Tree Planting.....	11
3.1.1.8 Street Tree Watering	11
3.1.1.9 Replacement Requests	11
3.1.2 Nature Strip landscaping	12
3.1.3 Aerial Cable Bundling and Power Undergrounding	12
3.1.4 Subdivisional Tree Planting	12
3.1.4.1 Tree Protection Zones	13
3.1.4.2 Handover of Streetscape in Subdivisions.....	13
3.1.4.3 Maintenance Responsibilities	13
3.1.4.4 Drainage Retention Reserves	14
3.1.4.5 Bonds and / or Pre-payment	14
3.1.5 Parks and Reserves	14
3.1.6 Tree Removal.....	16
3.1.6.1 Authorisation	16
3.1.6.2 Criteria for Removal.....	16
3.1.6.3 Removal Procedure.....	18
3.1.7 Public Consultation – Tree Removals Native or in Heritage Overlay	18
3.1.7.1 Public Consultation – Tree to be Cut or Removed not Native or in Heritage Overlay including Tree Planting	19
3.1.7.2 Dispute Resolution Procedure	20
3.2 Maximising the contribution of trees to the amenity of the municipality.....	22
3.2.1 Scope of Tree Maintenance Program	23
3.2.1.1 Rural Roadsides	23
3.2.1.2 Urban Areas	23
3.2.2 Significant Trees.....	23
3.2.3 Avenues of Honour or Exotic Trees	24
3.3 Preserving, enhancing and maintaining the street trees that are of heritage and/or tourist significance.....	24
3.3.1 Guidelines for Succession Planting.....	24
3.4 Ensuring that appropriate species of trees are planted.....	25
3.4.1 Guidelines for appropriate tree species	25

3.5 Carrying out pruning where necessary and to ensure pruned trees maintain an aesthetic shape	27
3.5.1 Tree Pruning	27
3.5.2 Pruning under Power Lines	27
3.6 Preparation of an Electrical Line Clearance Management Plan	28
3.7 Preparation of an Urban Tree Maintenance Management Plan	29
3.7.1 Best Practice	29
3.7.2 Risk Management and Inspections	29
3.7.2.2 Ongoing Inspection Program	31
3.7.3 Pest & Disease Control	31
3.7.4 Root Damage	31
3.8 Improving Maintenance and Rehabilitation Practices	32
4. REFERENCES	32
5. APPENDICES	32
Appendix A STREET TREE MASTER LIST	33
Appendix B SIGNIFICANT TREE REGISTER	36
Appendix C AVENUES OF HONOUR	42
Appendix D TREE INSPECTION SCHEDULE AND LEVEL OF SERVICE	46
Appendix E PRECINCT PLANS	58
Appendix F SCOPE OF TREE MAINTENANCE PROGRAM	91
Appendix G PLANTING DETAILS	95
Appendix H STREET LISTING SUCCESSION PLANTING	100
Appendix I LETTER TREE PLANTING	103
Appendix J LETTER TREE MAINTENANCE	105
Appendix K REFERENCES AND LEGISLATIVE REQUIREMENTS	107
Appendix L MANAGEMENT MAINTENANCE PLAN IMPROVEMENTS	111

1. EXECUTIVE SUMMARY

Our Vision

To 'Provide a sustainable, thriving and cohesive community where lifestyle, culture, health and wellbeing are supported by strong leadership and community partnerships'.

The Tree Asset and Maintenance Management Plan outlines the Benalla Rural City Council's approach to the total management of its urban tree infrastructure in accordance with the adopted Urban Tree Policy. This urban street tree maintenance plan applies throughout the municipality within those townships as defined within this plan.

The aim of this plan is to retain and plant trees where appropriate and to manage their well-being so that they continue to contribute to the quality of the urban environment. As trees are an asset, they need to be managed appropriately and in accordance with Council's Asset Management Policy to achieve the best return to the community.

The Tree Asset and Maintenance Management Plan seeks to balance the economic, social, safety and environmental expectations of the community, particularly as the ownership and management of Benalla urban forest is undertaken by people from many diverse disciplines such as residents, arborists, town planners, environment conservation officers, cultural heritage officers and other relevant government agencies.

The Tree Asset and Maintenance Management Plan encompasses both the legislative requirements and Council policies, strategies and operational objectives, for the undertaking of the levels of service and performance targets outlined in the plan.

The plan should be read in conjunction with:

1. Council's Community Plan 2016-2036, which outlines broad objectives and strategic directions for strengthening liveability, sustainability, inclusivity and resilience.
2. Road Management Plan 2017-2021.
3. Electric Line Clearance Management Plan 2019-2020.
4. Roadside Vegetation Management Plan 2014.
5. CP 31 Urban Tree Policy.
6. CP 29 Community Engagement.
7. Asset Management Policy.
8. Benalla Planning Scheme.
9. Relevant Arboriculture and Environmental Report – Health and Condition Assessment.

2. GENERAL

Trees are an important and highly visible asset within the Benalla Rural City's road network, urban streets, parks and reserves. Not only do they improve the liveability of the Rural City, but characterise the towns and provide enjoyment for residents and visitors alike.

This plan acknowledges that naturally occurring trees and vegetation along the rural roadside network is owned by the "Crown" and is more specifically addressed in this municipality's Roadside Vegetation Management Plan. Some aspects of the management of this natural environment which relate to the provision of a safe and efficient road network are addressed within this plan as part of Benalla Rural City's road maintenance practices.

Street trees are a reminder within urban development of the importance of the natural environment and the impact we may have on the environment and the amenity in which we live.

Benalla's wide streets and open brick-lined drains evoke an earlier simpler time in a relaxed country town as they enhance emotions, physical wellbeing and remind us of our heritage. The established larger street trees are an important part of the streetscape and aid in the creation of a distinctive identity to build upon for the future. Within the parks and reserves located throughout the municipality, trees provide aesthetic appeal, shelter, shade, and assist in improving the understanding of the environment.



In the maintenance processes and the overall tree maintenance strategy we need to be aware of the maintenance requirements and performance expectations of our urban trees. Trees will have ongoing maintenance requirements which may be elevated if they are poorly selected or established.

Trees are living organisms with finite life spans so there will always be a need for well-planned and well communicated replacement programs. Tree management shall include risk management analysis, heritage preservation, asset development, environmental and economic tourism benefits and life-cycle costing analysis.

3. POLICY COMMITMENTS

3.1 Guidance to Community, Council and Staff in development, maintenance and removal of trees

Key Commitment:

- *Providing clear guidance to Council, Council staff, residents, ratepayers and businesses in the development, maintenance and removal of trees and street landscape enhancement*

Control of the road reserve within the local road network vests with Council, therefore all works within the road reserve requires Council approval, as these works will affect Council's risk profile and subsequent insurance requirements and premiums.

Part of the Arterial Road network, under the management of VicRoads, which includes sections of the Midland Highway and a number of Arterial (Main) Roads are included within the urban precincts of the Benalla Rural City. In this situation the Benalla Rural City Council is responsible for roadside management as defined within the Road Management Act 2004.

3.1.1 Development of Urban Trees – Streets, Parks and Reserves

All trees planted within the urban development are under the care and management of the Benalla Rural City Council.

3.1.1.1 Care and Maintenance

Adjoining owners are encouraged to assist in the care and maintenance of trees after consultation with the Operations Parks and Gardens Unit, where applicable. Requests will be considered in accordance with this management plan. No trees are to be planted without written approval from Council.

If a tree is planted without appropriate approval of Council, on Council controlled land, the adjacent landowner may be requested to remove the tree and rectify the area. If the required works are not undertaken the Council will remove the tree and return it to the adjacent landowner. All cost associated with the removal of the tree and rectification works shall be borne by the relevant landowner.

3.1.1.2 Plantings General

Plantings in newly developed areas will generally be of a suitable tree species or as determined by Council in accordance with this management plan.

Planting methods are detailed within **Appendix H – Planting Details**.



Generally planting shall be:

- for all tree species minimum height of plant to be between one and two metres
- minimum of three to five metres from any public utility junction box, manhole, pole or aerial feeder line
- at spacing's of one tree per property frontage or to the satisfaction of the Benalla Rural City and spacing's being maintained at approximately 20 metres on larger frontage lots or corner properties
- not closer than nine metres from an intersection
- nature strip widths must accommodate the species and size of tree at maturity
- roadside - where possible, maximise growing medium area to allow for more water and nutrients to be available to the tree and reduces the proximity to infrastructure.

Plantings near road intersections and driveway crossovers will be subject to pedestrian and motorist safety assessments.

With any new tree planting, the Council Arborist will take into consideration;

- the location of planting – effects on car parking, effects to underground services, traffic and infrastructure clearances.
- species suitability (size) – the size and species of planting – size appropriate for street scape, street width, growth habit, vigour, and drought tolerance.
- species value – nuisance or risk to person and property from seeds, branch shed, allergies, weed infestation and increased maintenance pruning road, footpath and powerline.

Heritage overlayed Elm trees *Ulmus procera* are to be replaced as required with new plantings *Ulmus sapporo* Autumn Gold, *Ulmus parvifolia* Chinese elm or *Zelkova serrate* (similar style to Elm tree) or other species approved for the locations. This policy is to mitigate the potential decimation of Elm tree stands by Elm Leaf Beetle and Dutch Elm Disease.

A number of urban streets have existing stands of *Fraxinus oxycarpa* (Desert Ash) and *Gleditsia triacanthos* 'Sunburst'. These trees are not considered suitable as urban street trees due to the extensive root system that causes severe damage to infrastructure.

When planning for tree removal and replacement, consideration will be given to ensuring tree diversity by applying the 10/20/30 'rule of thumb' proposed by Santamour*, which states that municipal forests should comprise no more than 10 per cent of any particular species, 20 per cent of any one genus or 30 per cent of any single family.

Diversity in the urban forest is important as it reduces risks from pests and diseases and from climate change and improves resilience in the supply of ecosystem services.

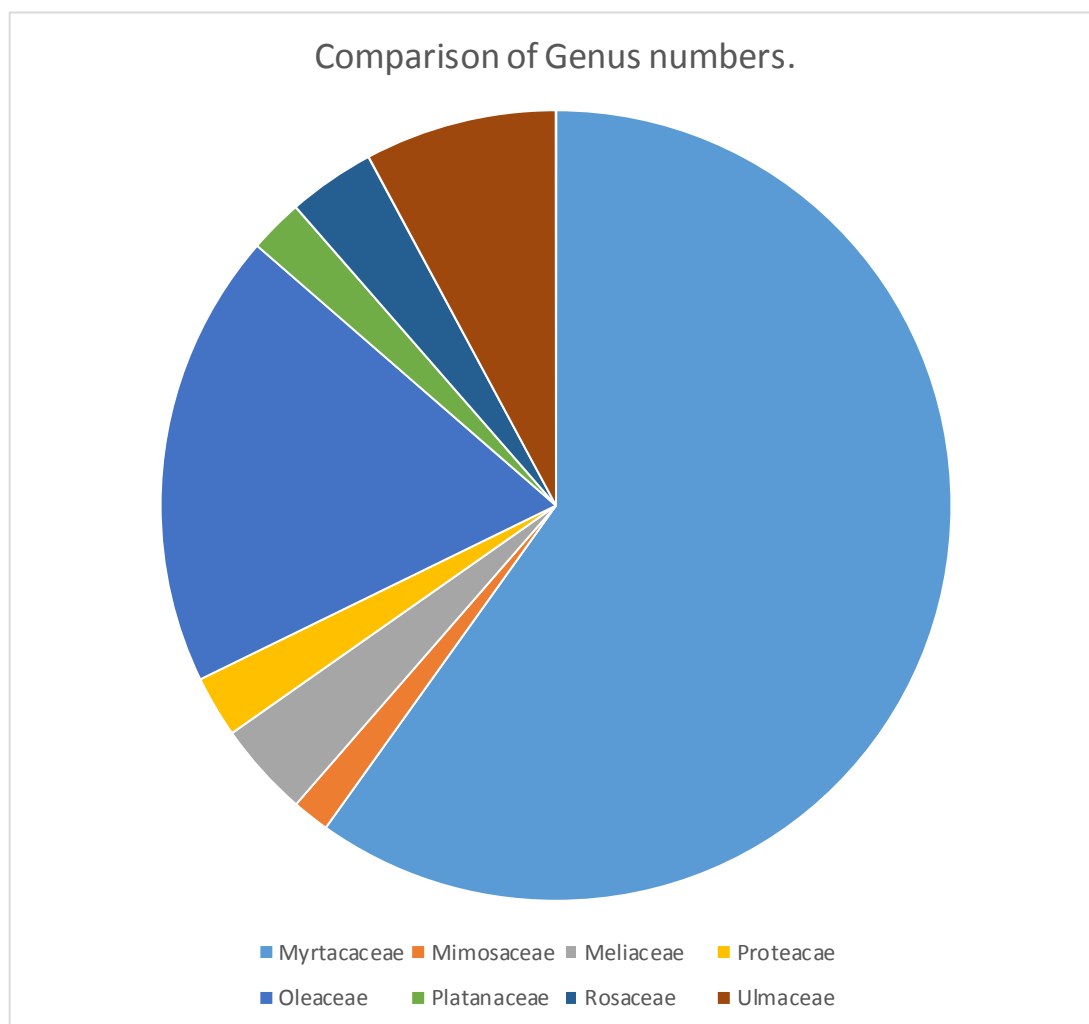


Figure 3 Comparison of the highest number of Street trees identified in Urban and Rural Township by Family name (2008-2012 Tree Audit).

* Reference Dr. Frank Santamour, Research Geneticist at the US National Arboretum in his paper **Trees for urban planting: Diversity, uniformity, and common sense**, which was presented at the 1990 Metropolitan Tree Improvement Alliance (METRIA) conference.

3.1.1.3 Approved Tree Planting Register

A list of recommended trees for planting in streets and/or reserves is to be known as the **“Street Tree Master List”** and is attached as **Appendix A**.

This list provides basic recommendations on the species of planting deemed suitable for the municipality. Proposed plantings not included within this list shall be considered against the criteria below and if deemed compliant shall be added to the recommended planting list.

Where proposed plantings are not approved under the above consideration, alternative suggested plantings shall be referred to the Developer.

Criteria for assessing suitability for plantings shall include but not limited to:

- general compliance with BRC Tree Policy
- rate of anticipated growth of plant
- anticipated plant height
- anticipated canopy spread
- anticipated root growth and likely impact on infrastructure
- known resistance to disease
- known history of use as a street tree planting in other municipalities
- anticipated maintenance requirements including drought tolerance
- suitability of plant under powerlines
- other requirements as determined appropriate by Benalla Rural City.

The **“Street Tree Master List”** can only be amended on the approval of the Manager Operations in consultation with appropriate qualified personnel.

3.1.1.4 Planting Principles

Tree planting guidelines are based on the urban design concept that a strong visual effect can be obtained by using a bold and simple layout without complicated and numerous variations in style and materials.

The following tree planting principles have been developed to address the various road site conditions within the municipality.

- **Symmetrical planting** – similar tree species on both sides of the roadway. This is the preferred layout however, this may not be feasible in all cases because of site constraints.
- **Asymmetrical planting** – different sized species and/or form on either side of the street. This layout is appropriate where powerlines occupy one side of a road, or where a narrow street allows planting on one side only.
- **Formal planting** – a formal streetscape is created where the roadway forms a grid pattern. Formal planting should be symmetrical and use a single tree species at regular spacing intervals.
- **Informal planting** – random placement of trees. Appropriate in some urban street settings where street locations have a direct or visual relationship to a natural environment, such as a river or bushland.

- **Single tree species per street** – generally a single street tree species is desirable and should be pursued unless restricted by site constraints.
- **Solar orientation** – in certain situations street planting can be designed to provide shade and also to allow winter sun.

3.1.1.5 Planting in Carparks

Trees shall not be planted within nine metres of the corner of an intersection. Planting offsets from boundary lines shall be in accordance with standard design concepts but generally:

- 2.8m from title boundary in 16m reserves
- 3.3m from title boundary in wider street reserves.

The preferred method of planting in carpark is planted central between two spaces as it maximises pedestrian movement area, drainage and growing space.

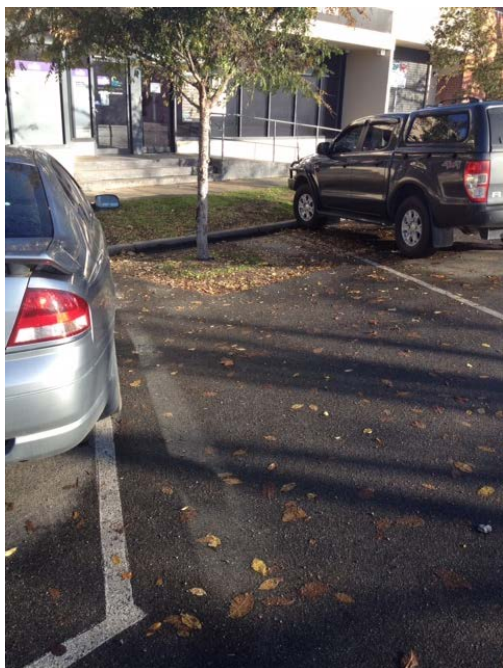


Diagram 1 - Tree planted in central car park.

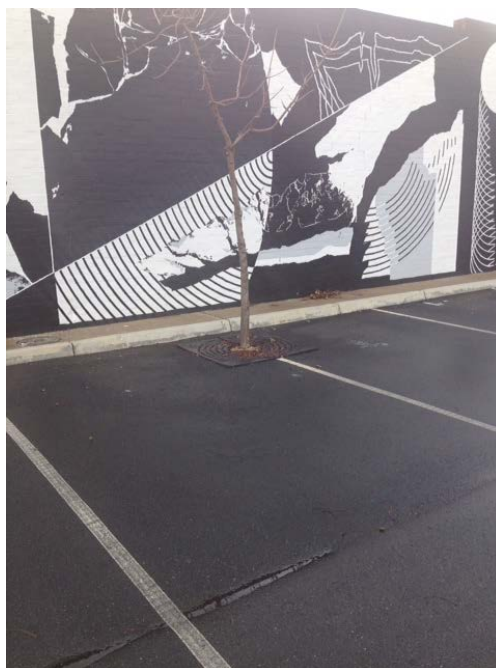


Diagram 2 - Tree planted in-between of car park.

Consideration for planting in-between two parking spaces and the reduction of available growing area to the tree, can sometimes be applied in a given circumstance to allow for increased parking opportunities.

Such plantings require a programmed inspection to ensure compliancy to the AS/NZS 2890.1:2004. Remarking of parking spaces will be required when the tree growth encroaches into the carpark spaces >200mm.

Due to the future cost of remarking and repainting of parking spaces, this type of planting would be considered a variation under exceptional circumstances and be pursuant to planning permit requirements.

3.1.1.6 Planting Stock Quality

The quality of planting stock used in streets and reserves is a major determinant of success in establishment of the plantings. The first step in avoiding future hazards trees is to plant high quality stock as per AS/NZS 2303: 2015 Tree Stock for Landscape Use.

Quality plantings can only be achieved by careful inspection and selection of stock from nurseries of known capabilities.

Therefore, Developers and applicants for tree plantings are required to nominate the source of proposed plantings at the time of submitting landscaping plans, for approval.

Refer to **Appendix H** for further details on quality stock and other planting details.

3.1.1.7 Timing of Tree Planting

Tree plantings should ideally occur between the months of April to August inclusive and preferably at a time when building activity is not likely to cause damage to new plant stock.

3.1.1.8 Street Tree Watering

Council accepts that the Benalla Rural City is responsible for the post planting care and maintenance of all street trees, however, owners/occupiers will be encouraged to assist with street tree watering.

The Benalla Rural City shall undertake the watering of all new street trees, as and when required, until the trees are established (approximately two year period). Property owners and occupiers shall be encouraged to water their street tree during the establishment period. A written request to this effect shall be lodged with the resident soon after the tree is planted.

Exceptions may apply when trees are planted within a new subdivision and are under the care of a Developer in accordance with a maintenance period arrangement.

3.1.1.9 Replacement Requests

Where tree damage, disease or death has resulted in the need for the removal of a tree, or where additional plantings are requested by an adjoining landowner/resident, requests shall be duly considered in association with this management plan. Requests are to be noted, recorded and responded to within one month of the receipt of a request.

Planting of replacement trees shall be undertaken at a time deemed suitable by Council Parks and Gardens staff.

It is generally expected that replacement or additional plantings shall be approved in accordance with the principles of this management plan.

3.1.2 Nature Strip landscaping

Nature strip plantings shall generally be encouraged to be drought tolerant plantings. Alternative grasses or small plantings will be encouraged subject to planting guidelines being considered by Council. Council Officers should be contacted for assistance in this matter.

Whilst grasses providing a lawn appearance are encouraged, it is important that appropriate species capable of tolerating drought conditions be considered. Examples of appropriate grasses include Santa Anna or Kikuyu couch.

It is understood that the character of nature strip is of a:

- neat
- tidy
- non polluting
- weed free
- risk minimised area of road reserve between the property boundary and road drainage line – i.e. kerb and channel.

This area should also be identified as not being a designated area for vehicle parking but may include footpaths or pathways.

3.1.3 Aerial Cable Bundling and Power Undergrounding

Some urban streets are so significant in their contribution to the way the town of Benalla is perceived that in order to grow substantial avenues of trees which reflect their significance, consideration of special and costly measures is warranted. A listing of streets with significant trees is to be prepared for the future development of a long term plan for undergrounding of communication or energy infrastructure, where appropriate.

Underground power delivery is compulsory for all new subdivisions.

3.1.4 Subdivisional Tree Planting

Detailed landscape plans for any development must be approved and certified prior to any construction commencing on the development. Developers should be referred to relevant Council staff for input and advice on streetscape proposals associated with any new subdivisional or other development proposals where tree plantings are likely to become assets of the municipality.

Guidance for prospective Developers may be found within this plan or related documents. Particular reference is made to the precinct maps (refer **Appendix E**) and planting guides (refer **Appendix H**).

The number of trees per property is to be determined by reference to Section 3.1.1.2 - Plantings General.

Proposed streetscape layout plans are to be submitted and should include:

- specification of species, stock and planting details
- specification of maintenance requirements

- design layout of proposed plantings, including measurements of nature strip width and proposed tree dimensions at 20 years.

The proposed plans must be referred to appropriate Council staff for comment as part of the engineering approval process for infrastructure works associated with the proposed development.

The Developer shall:

- arrange planting of trees with a one year maintenance period, subject to retention of a bond to cover the cost of tree maintenance, or for use by Council to complete the tree planting at the end of the one year period.

3.1.4.1 Tree Protection Zones

Specific clauses must be included in Planning Permits for subdivisions for the protection of trees identified within the subdivisional area as being significant or worthy of retention.

These clauses must stipulate a tree protection zone around the edge of the tree canopy and include any actions required to ensure the health and viability of the identified tree/s. AS/NZS 4970: 2009 Protection of trees on development sites.

3.1.4.2 Handover of Streetscape in Subdivisions

Prior to the issue of a Statement of Compliance under the Subdivision Act for new subdivisions or following completion of landscape planting an inspection is to occur in relation to the developed streetscape including street trees, retention basins and any other project landscaping.

Asset Services Parks and Gardens Unit personnel or other approved Council representatives, are to sign off on acceptance of landscape works as part of the above compliance inspections.

Inspections to include:

- compliance of planting with approved landscape, streetscape project plans
- suitable size, health, structure, planting and maintenance regimes of plantings
- Installation, suitability, workability and general acceptance of any landscape supporting infrastructure i.e. watering systems, retaining walls, fertilising processes etc.
- instruction on any operational, maintenance regimes and handover of any maintenance handbooks, guides, manuals etc. associated with any streetscape or operational infrastructure.

New trees planted in accordance with the above developments shall be recorded as being Council assets at the time of the issuing of a Statement of Compliance.

3.1.4.3 Maintenance Responsibilities

Where a specified maintenance period for the plantings is operational, the Developer must undertake all maintenance until the expiry of the specified maintenance period.

Council will only conduct maintenance within the specified maintenance period where the following circumstances apply:

- where an agreed maintenance program is arranged whereby Council undertakes maintenance which is paid for by the Developer
- damage to the plantings is caused by Council operations, vandalism or accidental damage which could be considered not part of the Developers maintenance responsibilities.

After the expiration of the maintenance period and subject to acceptance by Council of the plantings, Council will accept full maintenance responsibilities for the plantings.

Council will, under normal conditions, accept the plantings except where maintenance has obviously not been conducted by the Developer and the condition of the plantings is deemed not suitable by Council. In this case any bond or payment for the maintenance period contributed by the Developer shall be used to reinstate, repair and make good any planting so deemed unsuitable by Council.

An independent qualified arborist may be engaged to verify these findings should the Developer dispute the findings of Council. In this case, the party not supported by the findings of the arborists shall be responsible for meeting the cost of the consultancy.

3.1.4.4 Drainage Retention Reserves

Drainage retention reserve plantings shall generally be in accordance with Planning Permit conditions as specified for each subdivisional development.

3.1.4.5 Bonds and / or Pre-payment

Bonds and/or Pre-payment of street and / or drainage retention reserves tree maintenance shall be negotiated with Developers where the maintenance has been agreed to be conducted on behalf of Developers by the Benalla Rural City.

3.1.5 Parks and Reserves

Where parks and/or reserves do not have a specific master plan which includes references to establishment, long term maintenance management strategy and replacement programs, this management plan will act as a general guide for tree management in these areas. The Benalla Rural City has a diverse range of parks and gardens that offer a range of recreation experiences for residents and visitors.

These parks and gardens include:

BENALLA	Benalla Botanical Gardens -Specified Master Plan and operational maintenance.
BENALLA	Moirra Reserve, Mackellar Reserve, Jaycee Island, Psaltis Reserve, Riverine Parkland, Sports & Equestrian, Old Pound Reserve, Taungurong Reserve, Waminda Park, William Street Reserve, Arundel Reserve, Keith Hair Reserve.
DEVENISH	Railway Reserve – as leased from rail authority.
THOONA	Road reserve.
TATONG	Picnic area adjacent to Broken River.

This tree management plan does not directly relate to all developed parks and reserves or un-developed public open space reserves as tree management within these reserves may be addressed under their own specific plans.

There are a range of other parks/ gardens located within the Municipality that are managed by the community or other Crown Land Managers. For information on these parks/ gardens please contact the relevant land manager.

Objectives and Actions for Management of Trees in Parks;

- to protect and enhance trees and vegetation in Council's parks and gardens
- to provide a diverse range of parks and gardens to cater for community needs
- to maintain these recreational and aesthetic assets in accordance with risk management requirements.

Action	Responsibility	Timeframe	Priority
1) To record and include all tree and vegetation in Council's parks and garden.	Operations Park Coordinator / Contractor	Benalla Urban area June 2020; all other parks and gardens June 2021.	1 2
2) To follow up and action urgent customer requests.	Operations Park Coordinator / Parks and Gardens staff.	Within three working days.	1
3) To undertake risk management inspections of trees and vegetation in all parks and gardens.	Operations Park Coordinator / Parks and Gardens staff.	As per plan.	1
4) To update customer services and tree asset databases when management action completed.	Operations Park Coordinator / Parks and Gardens staff.	Within a month of completing management action.	2
5) To undertake maintenance actions identified in risk management inspections.	Tree crew / Parks and Gardens staff / Contractor.	Within eight weeks of receiving inspection.	2
6) The replacement or replanting within Council parks and gardens are to be from suitable species list.	Operations Park Coordinator / Parks and Gardens staff.	Suitable time of year and in line with budget.	3
7) To follow up and action non urgent customer requests.	Operations Park Coordinator / Parks and Gardens staff.	As routine maintenance.	3

3.1.6 Tree Removal

As trees and vegetation are living organisms they are not to be considered a permanent feature in a landscape. Council management and maintenance programs preserve and care for sick or damaged trees/ vegetation, with tree removal being the last resort if no other option is available. Public safety is Council's priority and Council's assets are managed accordingly.

3.1.6.1 Authorisation

- all decisions regarding removal of Council managed trees will be made in accordance with this management plan
- a written tree report must be prepared prior to any tree removal and signed by the Arborist or by Operations Manager
- significant Trees - Trees with a Heritage overlay or Native vegetation shall not be removed, pruned or lopped until the necessary approval process has been completed
- for the removal of significant trees, an assessment and recommendation by a qualified Arborist is a prerequisite to any removal and approval by Council
- where a tree have been removed without the appropriate approvals the removal of the tree/s will be referred to Council's compliance unit for attention
- public consultation will be completed by Council's Arborist for the removal of >3 consecutive trees within Heritage overlay before submission of Planning Permit application
- public consultation for <3 consecutive trees within Heritage overlay will be completed by Council's Planning department pursuant to Planning permit requirements.

Exemption to the above:

- the tree poses an immediate risk to person or property, hazard tree
- storm damage that cannot be rectified by remedial works
- is planted by others and is not identified in Council streetscape plan or is not a suitable tree species.

Council's Arborist has the delegation or authority to:

- describe the tree as hazard tree
- select replacement trees
- delegate staff to plant street trees.

3.1.6.2 Criteria for Removal

- a danger exists to the public or private property or persons due to the state of the tree
- where there is a consensus from residents/owners in a street where the trees do not form part of a recognised heritage or significant streetscape, that the tree or trees no longer are suitable, the tree or trees may be removed and replaced. This may occur at the residents/landowners cost
- where services are being blocked or damaged and no economic alternative exists but to remove the tree

- where trees not planted by Council are of a type which could have a detrimental effect to the existing services and there is a consensus of view by abutting residents / landowners
- dead, severely damaged, diseased or decayed trees
- removal at the owners or resident's cost where a tree impedes driveway access to a property or impacts on driveway safety. Removal of tree is a last resort for driveway access, after all other options have been exhausted. A replacement advanced tree, to be planted elsewhere at Councils discretion, may be obtained by Council and funded by the landowner
- where removal of trees from urban streets and agreed in-concert with residents to have a new species introduced within a streetscape, healthy specimens of previous plantings should not be prematurely removed
- in the event of road widening or realignment where adjustments to property setbacks and underground services has to occur and every option of preventing the tree being removed has been investigated without success
- where the tree has been identified as being a cause of concern relating to public health and well being
- in other circumstances where approval has been granted for removal by the Operations Manager which is documented with specific reasons for the approval, such as staff absence or emergency events.

Objectives and Actions for Management of Street Tree Removals;

- to protect and enhance trees and streetscapes
- to replace dead or decayed trees that cater for community needs
- to maintain tree assets in accordance with risk management requirements.

Action	Responsibility	Timeframe	Priority
8) To record customer request for removal of urban tree/ vegetation.	Customer services	Within one day of receiving request.	1
9) To follow up and action request to remove urban tree/ vegetation.	Operations Park Coordinator	Within a week of receiving request.	1
10) To follow up and action stump removal request.	Operation Park Coordinator	Within a week of receiving request.	1
11) Indigenous native tree removal requests on roadsides, waterways or reserves are to follow the Victoria's native vegetation framework and Councils Roadside Management Strategy. (Planning Approval may be required.)	Environmental Sustainability Coordinator, Operations Park Coordinator, Planning Coordinator	Within a week of receiving a request.	1
12) To record the removal of trees/ vegetation on tree asset database.	Operations Park Coordinator	Within a month of tree being removed.	1
13) To add location of tree/vegetation removal to the replanting list, or flag on asset database as needing replacing.	Operations Park Coordinator	Within a month of removal.	1

Action	Responsibility	Timeframe	Priority
14) Private plantings, edgings and structures are to comply with Council's Community Local Law 2008 Cl 2.21.	Operations Park Coordinator, Compliance Coordinator	When required.	1
15) To undertake approved tree removal.	Tree crew / Contractor	As per Risk Assessment criteria.	2

3.1.6.3 Removal Procedure

Only Council, or its appointed contractor under direction from Council, will remove urban street trees. Persons undertaking these works must be suitably qualified and experienced with a minimum level III Horticulture (Arboriculture).

Preferred method of stump removal is by "stump grinder". Other methods may be used where cost effective.

3.1.7 Public Consultation – Tree Removals Native or in Heritage Overlay

To ensure greater public consultation and ownership in regard to the management of Native trees or trees inside a Heritage overlay, Council will notify adjacent landowners to any tree that is to be removed. The significance and number of trees will determine the action required for public consultation and its importance.

If more than three consecutive trees within a heritage overlay are intended to be cut or removed, the Arborist will collaborate with Council's communication team, to best engage with residents of the street, in advance of the works happening or the submission of a planning permit application.

Under Council's planning scheme any tree that is located in a heritage overlay or native tree, requires a planning permit to be removed. The permit submission must be advertised as such and persons directly affected are to be notified by letter and given 14 days to submit any opposition to that tree removal.

Objectives and Actions for Management of Public Consultation;

- to notify and involve public in heritage tree replacements
- improving the efficiency, transparency and notification
- to encourage public participation and involvement in the removal process.

Action	Responsibility	Consultation	Vicinity	Priority
16) Tree removal Heritage overlay or Native	Operations Parks Coordinator, Planning Officer, Environmental Officer, Councillors	Planning department upon submission of planning permit application.	Immediate residents - street block or all street	High Legislated
17) Tree removal >3 Heritage overlay or Native	Operations Parks Coordinator, Planning Officer, Environmental Officer, Communications, Councillors	Letter drop, door knock before & before the submission of planning permit application.	Immediate residents - street block or all street	High

Through the planning permit process the public representatives (Councillors) are notified at a council meeting if a tree intended to be cut or removed is a native tree or located in a heritage overlay. Notice under this clause will include details of the impact of removing that tree and the actions that will be taken to minimise that impact. Evidence of such notification is recorded in the council's meeting minutes.

3.1.7.1 Public Consultation – Tree to be Cut or Removed not Native or in Heritage Overlay including Tree Planting

Council will notify adjacent landowners to any tree that is to be removed 7 days prior. If a tree is intended to be cut or removed for urgent works, the Operations Parks Coordinator must notify all affected persons as soon as possible before or after the urgent works have been completed. Notification to residents impacted by urgent works is by door knocking and delivery of letter placed in their mailbox.

If the tree intended to be cut or removed is within the boundary of a private property, the Operations Parks Coordinator must will refer to the relevant company that consultation must take place with the owner.

Action	Responsibility	Consultation	Vicinity	Priority
18) Tree removal <5 Routine maintenance	Operations Parks Coordinator	Letter 7 days prior to removal. Refer to Appendix J	Immediate residents - four houses	High
19) Tree removal >5 consecutive trees. e.g. resurfacing roadway or underground drainage works and usually In concert with street residents.	Operations Parks Coordinator, Manager Operations, Engineering Coordinator	Letter, door knock.	Immediate residents - street block or all street.	High
20) Tree planting-individual	Operations Parks Coordinator, P&G staff	Letter drop Refer to Appendix I	Immediate residents -	Medium
21) Powerline clearance	Operations Parks Coordinator, Contractor	Newspaper Public notice Refer to Electric Line Clearance Management Plan	Township	High Legislated

3.1.7.2 Dispute Resolution Procedure

If a dispute has arisen and the Supervisor cannot rectify, the dispute will be referred to Council dispute policy AP51 Complaints Handling and responsible person listed below.

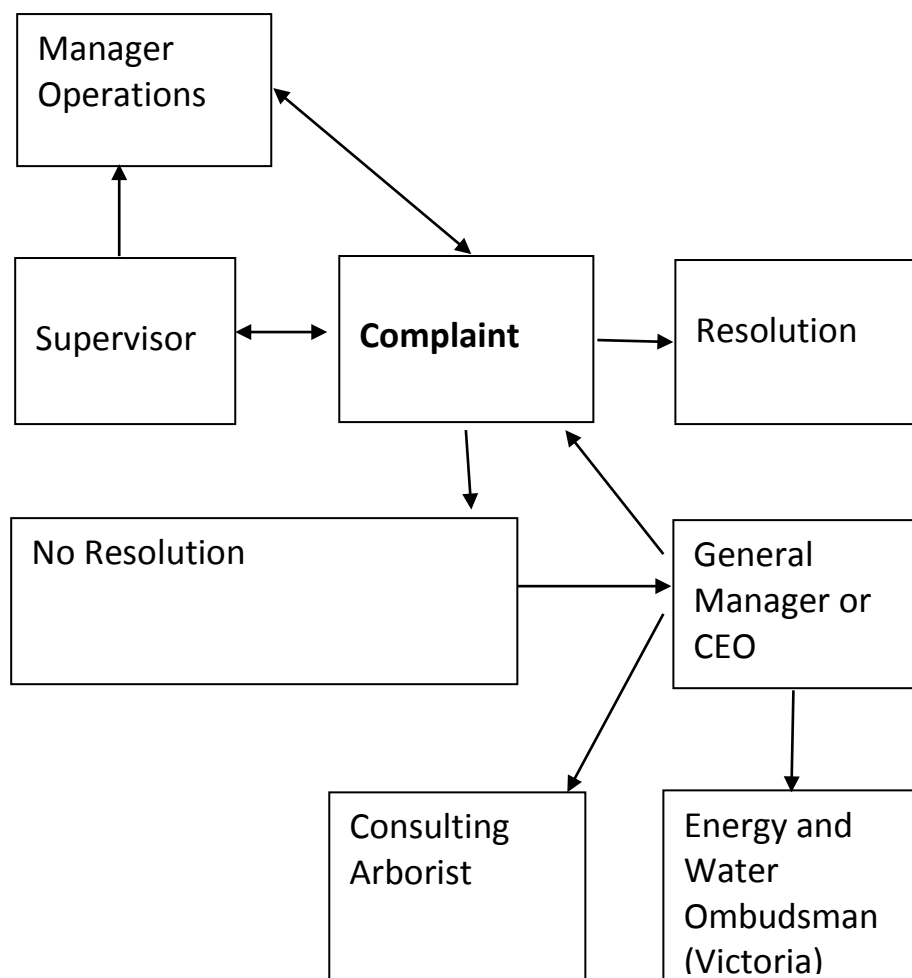
The person who is responsible for resolving disputes between the responsible person and members of the public:

- Manager Operations Telephone: 03 5760 2600

External dispute resolution procedure to be followed if the dispute cannot be resolved directly with the responsible person:

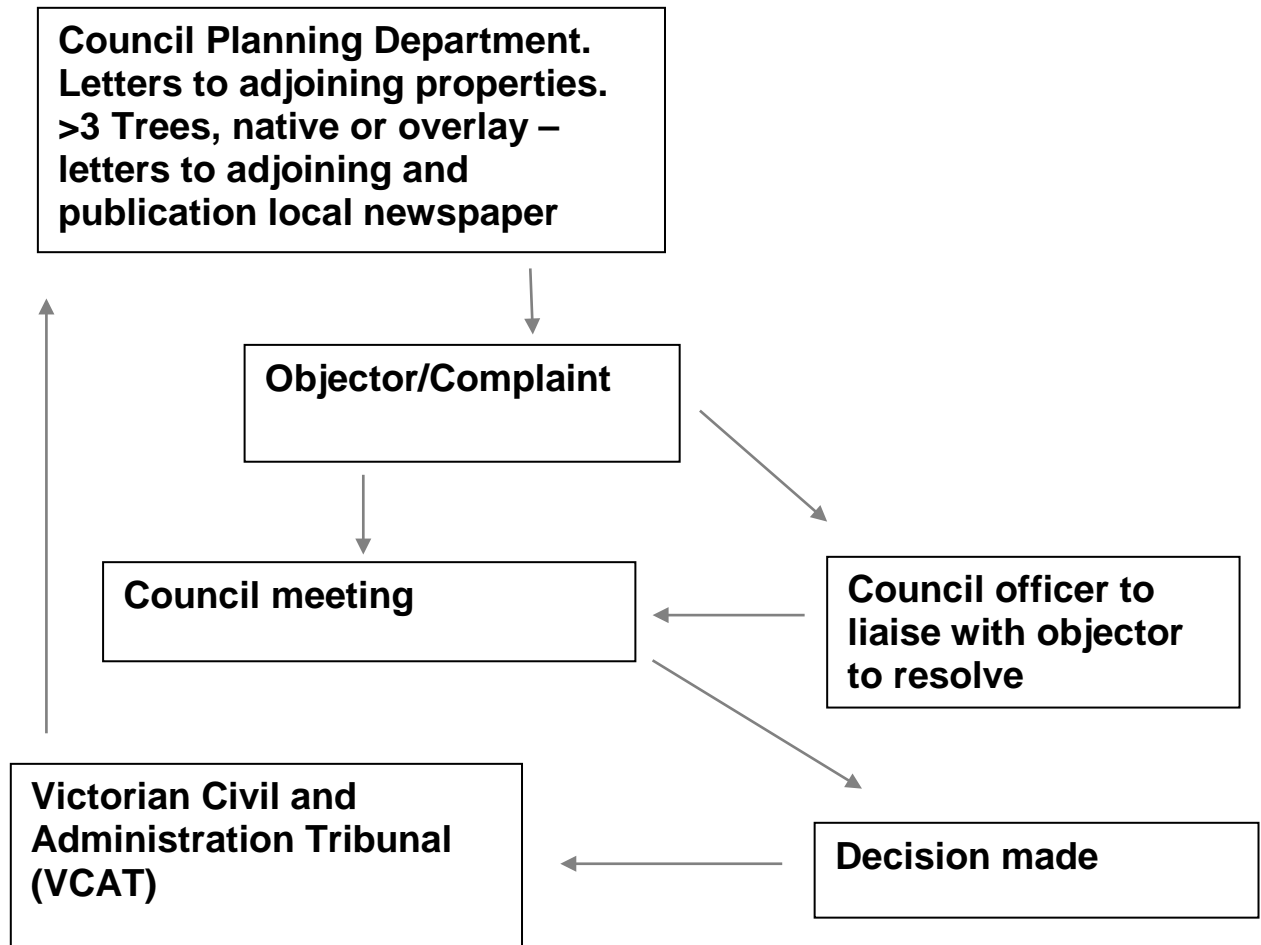
- Council's Consulting Arborist, or, Energy and Water Ombudsman (Victoria)

Benalla Rural City Council Dispute Resolution Flow Chart



The procedure would be to offer the services of such a mediator to the persons involved in the dispute, at cost to Council with both parties being bound by that recommendation.

Benalla Rural City Council Notifications for Planning Permit Applications Flow Chart



The procedure is for the planning department to become the mediator and to offer the opportunity for the objector to seek resolution or agreement by the presenting their grievance at a Council meeting.

If a party to the process do not agree to the decision then the matter can be heard at VCAT.

3.2 *Maximising the contribution of trees to the amenity of the municipality*

Key Commitment

- *Maximising the contribution of trees to the amenity of the municipality.*



Council recognises the importance of street trees in the character of the Benalla Rural City. Council will establish street tree planting programs to improve the streetscape of selected urban streets. The program will be developed for inclusion into Council's budget preparation process.

The Council will seek the cooperation and agreement of adjoining landowners to maintain a watering and maintenance regime for the newly planted advanced growth trees.

The benefits will be:

- uniformity of streetscape
- street ownership of trees
- improved tree management practices though uniform species.

An important document into the character of the street trees within Benalla Township is the *Benalla Street Trees: Policies and Strategies for the Benalla Rural City Council* by Des Gunn Landscape Design drafted in February 2007. This document analysed the town area and the makeup of plantings over time which assisted in developing the character of a number of urban precincts. Highlights from the above report are included in **Appendix E – Precinct Plans**.

The adoption of the precincts as defined will assist in ensuring the character of the Benalla Township develops through the implementation of street tree planting programs aimed at complimenting the history and development style of each identified precinct.

Of significance within the draft report is the identification of Gateways and Key Streets approaching the town which contribute to the makeup and character of the town area.

Further analysis for developing the planting programs within each precinct is to form part of an improvement plan for this Urban Tree Maintenance Plan. This work will involve analysing each street listing the current and proposing future plantings based on this plan.

3.2.1 Scope of Tree Maintenance Program

3.2.1.1 Rural Roadsides

Tree maintenance along rural roadsides is limited to maintain the safe and efficient function of an existing public road in accordance with the written agreement of the Secretary of the Department of Sustainability and Environment or as otherwise provided under government exemptions.

Generally these works are to be undertaken for the provision of a “clearance envelope” for trafficable purposes and adequate site distances for the safe operation of the local road network.

Native vegetation along roadsides is under the ownership of the crown. All matters relating to roadside vegetation is referenced to Benalla Rural City Roadside Vegetation Management Plan.

3.2.1.2 Urban Areas

This maintenance plan covers the urban areas of the following towns within the Benalla Rural City:

- Benalla
- Baddaginnie
- Goorambat
- Devenish
- Thoona
- Tatong.

Areas of each urban area for which this plan relates is as highlighted in **Appendix F**.

It is accepted that this maintenance plan also relates only to those trees particularly in the rural townships that have been planted specifically for beautification, enhancement, commemoration purposes or other specified and accepted purposes by Council. Although a duty of care may exist in relation to native self-generated trees within the defined township areas, no specific maintenance of these trees is planned under this maintenance plan.

3.2.2 Significant Trees

Significant trees are those classified on the Significant Tree Register and/or classified by the National Trust.

These trees may be defined as significant due to a number of criteria including but not limited to:

- horticultural or genetic value and could be an important source of propagating stock
- occurs in a unique location or context and so provides a contribution to the landscape

- is rare or of very localised distribution
- may be particularly old or venerable
- outstanding aesthetic significance
- commemoration of a particular occasion or associated with an important historical event
- associated with aboriginal activities
- or other criteria defined by the National Trust or Council which identifies the tree as being of importance and therefore of significance to the community.

Significant Trees are listed on the register as listed within **Appendix B**.

Apart from minor pruning and maintenance any action effecting registered significant tree/s is to be approved by the Council unless emergency treatment is required.

3.2.3 Avenues of Honour or Exotic Trees

The Benalla Rural City Council accepts the responsibility for maintenance of Avenues of Honour as listed within **Appendix C**.

Wherever possible, Council will liaise with any community group/s who may have an interest with these avenues prior to any major replacements of dead or damaged trees.

Replacements where and when required to be of the same variety or as otherwise selected by Council following community consultations.

3.3 *Preserving, enhancing and maintaining the street trees that are of heritage and/or tourist significance*

Key Commitment:

- *Preserving, enhancing and maintaining the street trees that are of heritage and/or tourist significance.*

Heritage trees and those considered as having unique tourist significance within the Benalla Rural City will be managed, as far as practical, to ensure their preservation.

Avenues of Honour plantations will be managed so as to respect the nature of the plantings and associated memorials.

Arboriculture advice will be sought when undertaking or proposing to undertake significant tree management activities on these trees.

Specific areas of these trees are shown on attached appendices:

Significant Tree Register	Appendix B
Avenue of Honour Register	Appendix C

3.3.1 Guidelines for Succession Planting

Succession planting refers to several planting methods that extend the aesthetic value of existing avenues of large trees that are in a state of senescence by a staged approach to tree removals and replacements over a number of years.

Individual street trees have a Useful Life Expectancy (U.L.E.) that is taken into consideration, in a holistic approach, to the preservation and enhancement of an individual tree, or streetscape. If a high percentage of trees in the street have a U.L.E. of less than five years, tree replacement of the entire street should be given consideration.

Council's aim is to retain heritage or significant street trees and to manage their well-being so they continue to contribute to the quality of the urban environment. As trees are an asset, they need to be managed appropriately and in accordance with the concepts of the Council's Asset Management Policy to achieve the best return to the community.

Council has identified a number of streets, identified from the Initial condition report, that have priority for succession planting. Refer to **Appendix H**

3.4 Ensuring that appropriate species of trees are planted

Key Commitment:

- *Ensuring that appropriate species of trees are planted that minimise interference with roadside assets such as powerlines, roads, footpaths, kerb and channelling and underground assets.*

The aim of this Tree Management Plan is to enhance landscapes to a standard which will strengthen both the individual residential and community amenity. Good landscape design requires considerable vision and a strong commitment to the appropriateness of tree planting.

With all tree replacements and plantings Council will consider the space in terms of its visual, physical and functional components as well as its relationship to the surrounding areas. Tree species selection will take into account relevant management and development plans, suitability and integration into surrounding planting themes.

A list of recommended trees for planting in streets and/or reserves is to be known as the **"Street Tree Master List"** and is attached as **Appendix A**

3.4.1 Guidelines for appropriate tree species

All suitable streetscape replacement trees or vegetation are to incorporate the following:

- plants are of a species size which complements the streetscape once established
- to provide uniformity in the streetscape by not using more than three over storey species per street
- in locations where more than two varieties exist, new plantings will reinforce the most appropriate species present
- suitable species shall be of reasonably fast or moderate growth habit, whilst uniform and consistent crown shape and dimension
- species that present a risk to public safety due to toxicity or structural instability will be avoided
- can be readily and economically maintained clear of powerlines and services
- will not become an environmental weed or a garden escapee
- species used shall develop a clear trunk height to enable vehicular parking, pedestrian flow and sight clearances

- consider local climate and sustainable water consumption.

The following desirable features of tree planting in parks, recreational reserves and along watercourses need to be considered:

- species planted are appropriate to the area
- species mentioned in specific master plans, management plans or occur naturally in that area
- species that do not present a risk to public safety due to toxicity or structural instability
- can be readily and economically maintained
- provide shade where appropriate
- will not become an environmental weed or a garden escapee
- planting locations are to ensure vehicular, pedestrian and sight clearance requirements.

Objectives and Actions for tree planting;

- to notify and involve public in tree planting
- maximise tree diversity ensuring urban forestry for future generations
- maximise suitability of species to minimise maintenance requirements

Action	Responsibility	Timeframe	Priority
22) New subdivision streetscape plantings are to involve and be approved by Council's Arborist.	Planning staff, Operations Parks Coordinator	On-going	1
23) Tree replanting's and the follow up watering/ maintenance are to occur at correct time/s of year.	Operations Parks Coordinator, P&G staff, Developer	Weather dependant.	1
24) Customer enquiries relating to the planting of street trees are to abide by Council's approval processes.	Customer services, Operations Parks Coordinator	On –going	1
25) Council to build upon the existing list of species suitable for streetscape replanting's that comply with above criteria.	Operations Parks Coordinator	On-going	2
26) Council to develop a list of species suitable for parks and gardens plantings that comply with above criteria.	Operations Parks Coordinator, P&G staff	On-going	2
27) To update tree asset (ArborPlan) database when plantings have been completed.	Operations Parks Coordinator	Within a month of notification to Asset Management.	2
28) Council to develop guidelines for streetscape plans.	Operations Parks Coordinator, P&G staff	Des Gunn Precinct Plan	2
29) Council to develop information for the community on the values of street trees, the care of street trees and description of council's street tree maintenance actions.	Operations Parks Coordinator, P&G staff Communication Officer	December 2020	2

3.5 Carrying out pruning where necessary and to ensure pruned trees maintain an aesthetic shape

Key Commitment:

- *Carrying out pruning where necessary and to ensure pruned trees maintain an aesthetic shape.*

3.5.1 Tree Pruning

All pruning will be undertaken with due care, with heavy pruning avoided, so as to permit regrowth of natural crown shape. All tree pruning will be in accordance with the AS/NZS 4373: 2007 Pruning of Amenity Trees.

Trees should be under pruned so as to permit:

- clear line of sight for vehicles in accordance with the Road Management Act and Council's Road Management Plan
- unrestricted safe passage of pedestrians on footpaths or walkways
- management of the health and wellbeing of the tree
- removal of dead, diseased, abnormal growth or pest infected limbs and branches
- reduction of crown density or redistribution of growth to lateral branches
- removal of damaged, broken or limbs and/or branches otherwise deemed necessary to prune in accordance with this tree maintenance plan.

Street tree branches overhanging private property may be pruned by Council following agreement between the property owner and relevant Council Manager.

If unauthorised street tree pruning occurs by abutting landowners / residents or other person, any corrective works to the tree or any replacement of the tree may be costed to the person responsible for the unauthorised pruning.

Pruning should be directed to achieve optimum aesthetic performance of the selected tree as well as meeting risk management objectives. It is reinforced that the initial selection of appropriate trees for planting in any given location will help to minimise major corrective or structural pruning.

It is considered appropriate that pruning of a street tree should be undertaken on a whole of need basis. This approach ensures that on any particular visit to prune a tree, whether for power line clearance, traffic management clearance, pedestrian clearance or aesthetic maintenance, all aspects relating to pruning should be undertaken on the one visit.

This strategy ensures the effectiveness of the pruning and leads to greater efficiency in management of the tree maintenance tasks.

Initial introduction of this strategy would commence with pruning of street trees on the power line side of the street being undertaken prior to following up with other tree pruning's.

3.5.2 Pruning under Power Lines

The Benalla Rural City is responsible for the pruning of all street trees under powerlines within the Benalla City Declared Urban Area under the Electricity Safety Act 1998.

Tree pruning required under powerlines should be carried out in accordance with the requirements of the Guidelines to the Electricity Safety (Electric Line Clearance) Regulations 2015, Code of Practice of Electrical safety for work on or near high voltage electrical apparatus (The Blue Book) 2005, Council's Electrical Line Clearance Management Plan, Australian Standards 4373, Pruning of Amenity Trees 2007, and be suitable trained, qualified experienced and authorised.

3.6 Preparation of an Electrical Line Clearance Management Plan

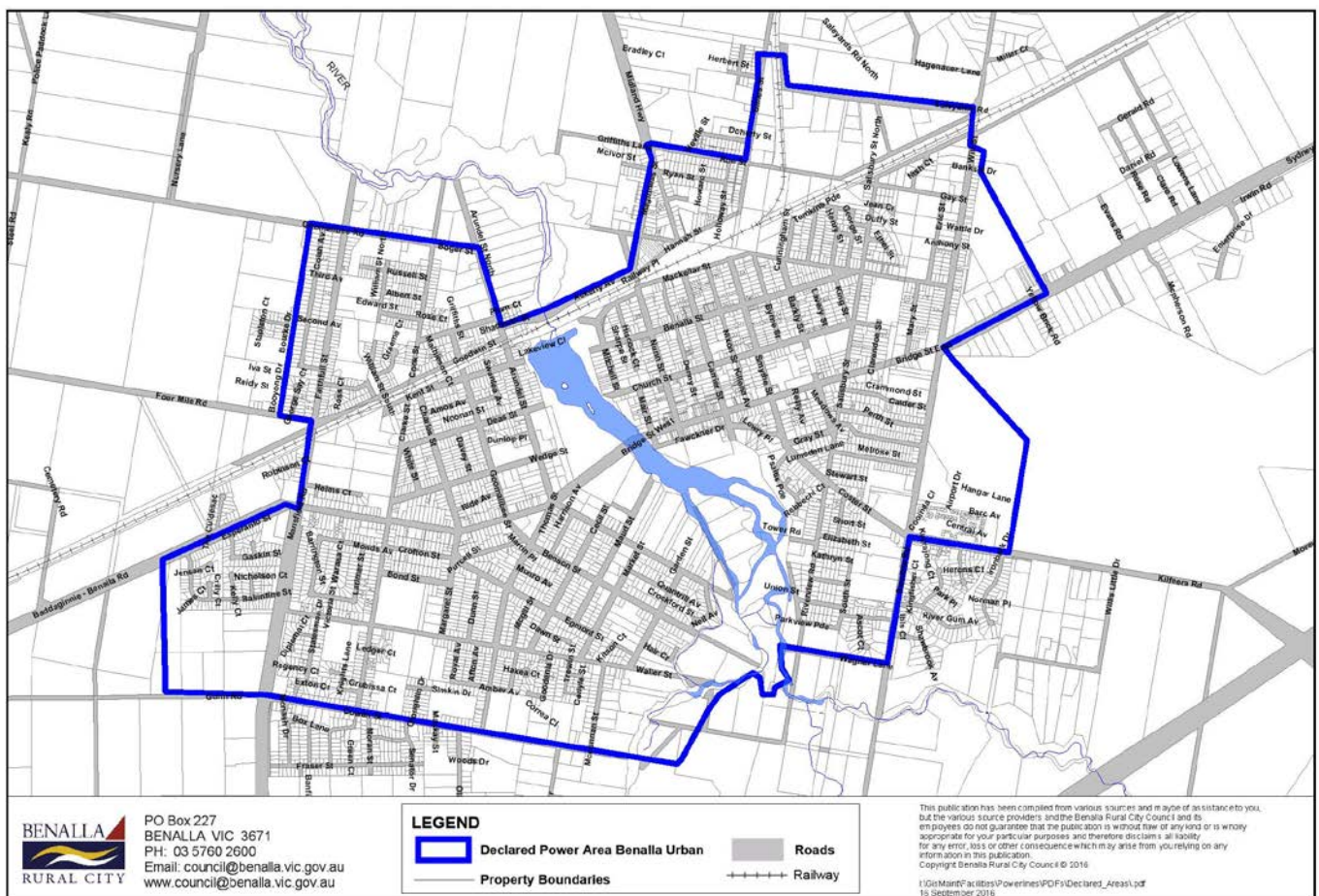
Key Commitment:

Preparation of an Electrical Line Clearance Management Plan which details how this policy is to be implemented as per the requirements of Electricity Safety (Electric Line Clearance) Regulations 2015.

Before 31 March in each year, a responsible person must ensure that a management plan relating to the compliance with the Code for the next financial year is prepared and sent to Energy Safe Victoria.

The plan must be endorsed at Council Meeting in February to permit the CEO authorising such a plan before submission on every year.

Map of Declared Areas Benalla Township



3.7 Preparation of an Urban Tree Maintenance Management Plan

Key Commitment:

- *Preparation of an Urban Tree Maintenance Management Plan which details how this policy is to be implemented.*

This Urban Street Tree Maintenance Management Plan details all aspects of street tree maintenance and management principles as adopted by the Benalla Rural City Council.

Key Commitment:

- *Implementation of Best Practice in urban tree management.*

3.7.1 Best Practice

Best Practice tree management practices will be maintained at all times.

These management practices include:

- planning processes, including risk management consideration
- compliance with relevant legislation
- development of tree management systems
- inspection regimes
- tree maintenance standards.

Tree management practices will include the following activities:

- An urban tree inventory will be established and maintained.
- Requests for tree planting will be considered and reported as part of the annual planting program.
- The planting program will generally be undertaken in the period July to August inclusive. Planting at these times is recommended to maximise the success of the plantings.
- Operations Parks and Gardens Unit (ASPGU) will arrange the purchase, delivery, planting and maintenance of the trees.
- ASPGU will develop a maintenance schedule for all new plantings to ensure ongoing watering requirements are met.
- An urban tree inspection schedule and levels of service / inspections is to be developed and maintained as defined in **Appendix D**.

3.7.2 Risk Management and Inspections

Council has a duty of care to ensure best management practises to minimise risk to public and property from Council's trees and vegetation. Risk Management forms the basis for all inspections regimes and maintenance activities. Details of the Risk Management assessment criteria are available in **Appendix F**.

A number of factors will be considered in determining tree selection for planting in Council's urban areas.

Risk factors include:

- proposed location - proximity to public and private physical infrastructure
- tree physiology - tree behavioural characteristics
- tree management requirements

- useful life expectancy of the plant
- failure potential - risk of harm.

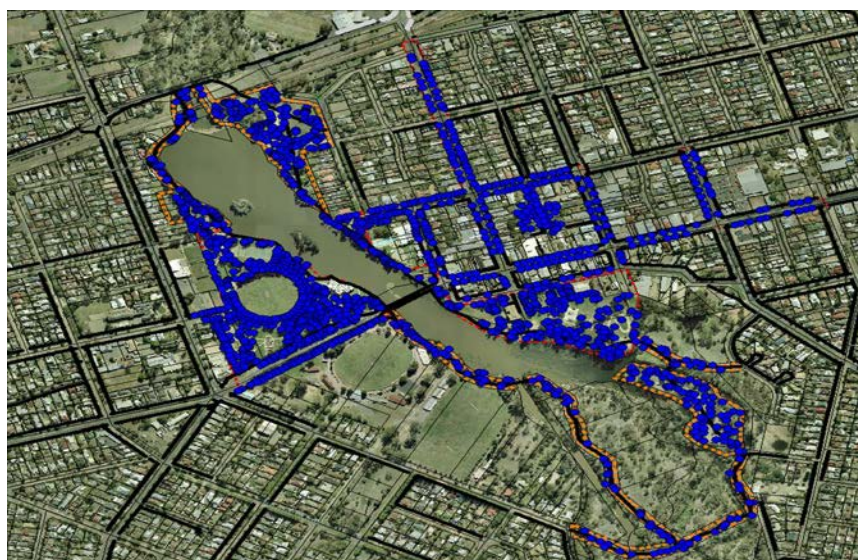
The Council will select trees that will minimise risk and general management requirements.

3.7.2.1 Initial Condition Audit

This program is to be staged over two - four years depending upon budget allocations. As part of the program each tree will be located on Council's GIS mapping system and therefore becomes readily available for all Council departments to access. Such condition audits will be undertaken at a minimum six year frequency.

Staged condition audits are based as a priority on risk assessed areas.

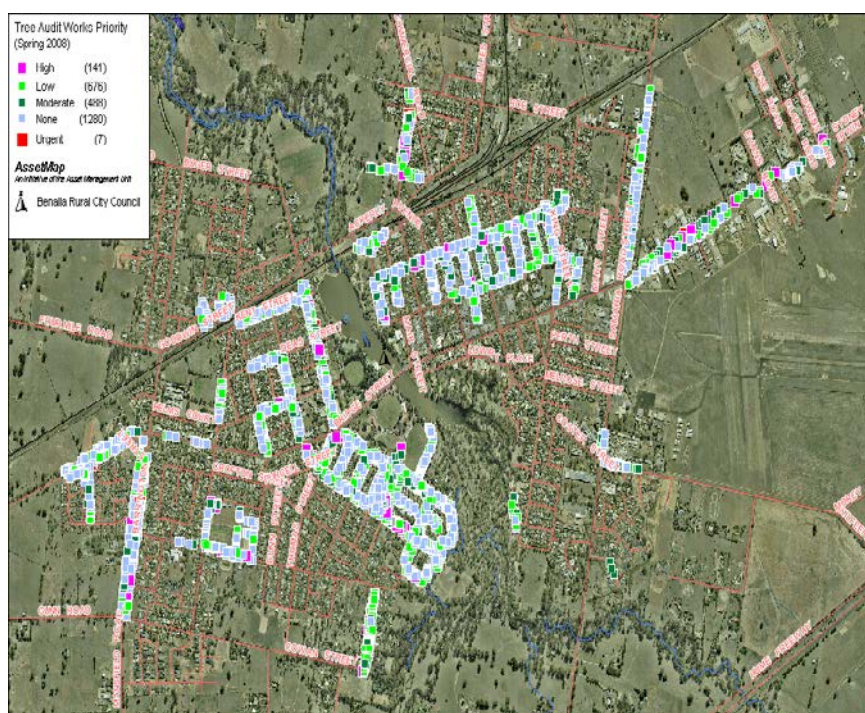
- Stage One based on High Risk Zones.
- Stage Two based on Moderate Risk Zones.
- Stage Three and Four on Low Risk Zones.



Inspection Area 1

Stage One of the tree audit program covered those trees as highlighted on the map opposite.

This area has been identified as being in the Very High and High risk category area covering the CBD, Lake Foreshore, Walking Track and Botanical Gardens.



Inspection Area 2

Stage Two of the tree audit undertaken in August 2008 included those trees as shown and included within the Moderate Risk Zone.

This photograph shows Tree Audit Works Program based upon the findings of the condition audit and ranked by risk priority.

3.7.2.2 Ongoing Inspection Program

Inspections of the tree networks are to be planned and undertaken in accordance with approved Inspection Schedule and Level of Service plan as included in attached **Appendix D**.

3.7.3 Pest & Disease Control

As a living organism trees and vegetation are susceptible to attacks from pests or diseases. The management of Council's trees will be in accordance of Australian Arboriculture Standards to minimise the risk of disease and pest attacks entering the plant.

Council has an elm leaf beetle control program and a white ant (termite) response program. These programs focus on Council's urban tree assets. Pests like Elm Leaf Beetle on private trees are the responsibility of the landholder.

Invertebrates like termites that are associated with rural Crown Land trees are beyond the resources of Council and are to be acknowledged as a natural function of the Australian environment.

3.7.4 Root Damage

Tree roots are a vital part of a tree that assists with the tree's stability and transfer of water and nutrients from the soil into the tree.

The management of tree roots needs to focus on preventing damage to existing Council tree roots and to prevent of damage or potential of damage from Council tree roots.

Action	Responsibility	Timeframe	Priority
30) Any underground works near the root zone of Council's tree assets need to involve Arboriculture advice during planning and possibly implementation stages.	Operations Parks Coordinator, Infrastructure Project Manager	As required.	1
31) To follow up and action request on damage to property by Council tree roots.	Operations Parks Coordinator	Within one week of receiving request.	1
32) To develop and implement Council's tree root barrier risk reduction program.	Operations Parks Coordinator	Annually	2

3.8 *Improving Maintenance and Rehabilitation Practices*

Key Commitment:

- *Improving its maintenance and rehabilitation practices.*

Improving maintenance practices is an ongoing task based on ensuring efficient usage of resources and arboriculture best practices to ensure an increase in health condition and useful life expectancy is being increased for each street tree.

With the commencement of the street tree audit data inspection program, a more proactive maintenance regime can be implemented. This approach will lead to a more effective and efficient program for tree maintenance.

A program to conduct proactive maintenance based on the risk hierarchy areas as defined will lead to greater benefit to residents and reduce Council's liability risk exposure.

4. REFERENCES

References referred within this document or for use in tree management are, but not limited to those as listed within **Appendix K – References and Legislative Requirements**.

5. APPENDICES

Appendix A	Street Tree Master List
Appendix B	Significant Tree Register
Appendix C	Avenues of Honour
Appendix D	Tree Inspection Schedule and Levels of Service
Appendix E	Precinct Plans
Appendix F	Scope of Tree Maintenance Program
Appendix G	Planting Details
Appendix H	Street Tree Listing Succession Planting
Appendix I	Letter Tree Planting
Appendix J	Letter Tree Maintenance
Appendix K	References and Legislative Requirements
Appendix L	Management / Maintenance Plan Improvements

Appendix A

STREET TREE MASTER LIST

Botanical Name				Medium Strip Width				
				Narrow <2m	Medium 2m to 4m		Large 4m to 8 m	
Genus	species	Cultivar	Common Name		Wires	No Wires	Wires	No Wires
<i>Acer</i>	<i>buergerianum</i>		Trident Maple	#				
<i>Acer</i>	<i>campastre</i>	Elsrijk	Hedge Maple			#		
<i>Acer</i>	<i>freemanni</i>	Autumn Blaze	Red Maple					#
<i>Acer</i>	<i>negundo</i>	Sensation	Box Elder					#
<i>Acer</i>	<i>rubrum</i>	October Glory	Red Maple					#
<i>Acer</i>	<i>saccharum</i>	Fall Fiesta	Sugar Maple					#
<i>Acer</i>	<i>truncatum x A. platanoides</i>	Norwegian Sunset	Sugar Maple					#
<i>Agonis</i>	<i>flexuosa</i>		Willow Myrtle	#	#			
<i>Albizia</i>	<i>julibrissin</i>		Silk Tree	#				
<i>Callistemon</i>		Kings park	Bottlebrush	#	#			
<i>Callistemon</i>	<i>viminialis</i>		Weeping Bottle Brush	#	#			
<i>Callistemon</i>	<i>Gawler's hybrid</i>	Harkness	Bottlebrush	#				
<i>Corymbia</i>	<i>citriodora</i>		Lemon scented Gum					#
<i>Corymbia</i>	<i>maculata</i>		Spotted gum					#
<i>Eucalyptus</i>	<i>greggsoniana</i>		Dwarf Mallee Snow Gum			#		
<i>Eucalyptus</i>	<i>leucoxydon</i>	Eucky Dwarf	Dwarf Yellow Gum					#
<i>Eucalyptus</i>	<i>leucoxydon</i>	Rosea	Dwarf Yellow Gum					#
<i>Eucalyptus</i>	<i>spathulata</i>		Swamp Mallee Gum			#		
<i>Fraxinus</i>	<i>pennsylvanica</i>	Urbanite	Green Ash			#		
<i>Fraxinus</i>	<i>giffithii</i>		Ash			#		
<i>Geijera</i>	<i>parviflora</i>		Wilga		#			
<i>Koelreuteria</i>	<i>paniculata</i>		Golden Rain Tree		#			
<i>Lagerstroemia</i>	<i>indica x L. fauriei</i>	Biloxi	Pale Pink Flowering	#				
<i>Lagerstroemia</i>	<i>indica x L. fauriei</i>	Sioux	Pink	#				
<i>Lagerstroemia</i>	<i>indica x L. fauriei</i>	Natchez	White	#				
<i>Lagerstroemia</i>	<i>indica x L. fauriei</i>	Tuscarora	Coral Pink Flowering	#				
<i>Laurus</i>	<i>nobilis</i>		Bay Tree	#		#		

Botanical Name				Medium Strip Width				
				Narrow <2m	Medium 2m to 4m		Large 4m to 8m	
Genus	species	Cultivar	Common Name		Wires	No Wires	Wires	No Wires
<i>Liquidamber</i>	<i>styraciflua</i>	Rotundiloba	Liquidamber					#
<i>Liquidamber</i>	<i>styraciflua</i>	Gumball	American sweetgum		#		#	
<i>Magnolia</i>	<i>grandiflora</i>	Little gem	Magnolia	#				
<i>Malus</i>	<i>ioensis</i>	Plena	Crab apple		#			
<i>Malus</i>		Sugar tyme	Crab apple		#			
<i>Melaleuca</i>	<i>linariifolia</i>		Snow In Summer			#		
<i>Metasequoia</i>	<i>glyptostroboides</i>		Dawn Redwood					
<i>Pistacia</i>	<i>chinensis</i>		Pistacia		#	#		
<i>Pyrus</i>	<i>calleryana</i> x <i>P.betulaefolia</i>	Edgewood	Ornamental pear			#		
<i>Pyrus</i>	<i>fauriei</i>	Korean Sun	Machurian Pear		#	#		
<i>Pyrus</i>	<i>calleryana</i>	Capitol	Ornamental pear	#				
<i>Prunus</i>	<i>blireana</i>		Prunus	#	#			
<i>Quercus</i>	<i>palustris</i>		Pin Oak					#
<i>Quercus</i>	<i>rubra</i>		Red Oak					#
<i>Tristanopsis</i>	<i>laurina</i>	Tonia & Isobel	Water Gum			#		
<i>Ulmus</i>	<i>parvifolia</i>	Todd's' or "Inspire"	Chinese Elm				#	
<i>Ulmus</i>	<i>parvifolia</i>	Burnley Select	Chinese Elm				#	
<i>Ulmus</i>	<i>sapporo</i>	Autumn gold	Hybrid Elm				#	
<i>Zelkova</i>	<i>serrata</i>	Wireless	Japenese Elm		#		#	
<i>Zelkova</i>	<i>serrata</i>	Green Vase	Japenese Elm					#

Governing factors:	Unique climate:	Hotter for longer than elsewhere in the North East Cold winters (heavy frosts) Subject to inundation in times of heavy rains in the catchment
	Soil types:	Generally Clayey, but silt on the floodplain

Must be:	As reliable, durable and hardy as possible	
	Of lower order maintenance in terms of:	Water needs Formative pruning

Candidates Trees

Botanical Name				Medium Strip Width				
				Narrow <2m	Medium 2m to 4m		Large 4m to 8m	
Genus	species	Cultivar	Common Name		Wires	No Wires	Wires	No Wires
<i>Acacia</i>	<i>implexa</i>		Lightwood	#				
<i>Acacia</i>	<i>melanoxylon</i>		Blackwood					
<i>Angophora</i>	<i>costata</i>		Smooth-barked Apple					
<i>Angophora</i>	<i>floribunda</i>		Rough-barked Apple					
<i>Angophora</i>	<i>hispida</i>		Dwarf Apple		#			
<i>Arbutus</i>	<i>unedo</i>		Irish Strawberry Tree				#	
<i>Carpinus</i>	<i>betulus</i>	Frans Fontaine	Common Hornbeam					#
<i>Corymbia</i>	<i>eximia</i>		Yellow Bloodwood		#			
<i>Eucalyptus</i>	<i>kitsoniana</i>		Gippsland Mallee Gum			#		
<i>Eucalyptus</i>	<i>greggi</i>							
<i>Eucalyptus</i>	<i>platypus</i>		Moort		#			
<i>Lophostemon</i>	<i>confertus</i>		Brush Box			#	#	#
<i>Pistacia</i>	<i>chinensis</i>		Chinese Pistachio		#			
<i>Pyrus</i>	<i>calleryana</i>	Chanticleer'	Callery Pear selection				#	
<i>Pyrus</i>	<i>tadshiskistanica</i>		Pear selection		#			

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix B

SIGNIFICANT TREE

REGISTER

Significant tree Register

Botanical Name	Common Name	Location	Coordinates	Significance
<i>Eucalyptus leucoxylon</i>	Yellow Gum	Benalla Botanical Gardens	Coordinates MGA Zone 55 X:408,531.960 Y:5,954,205.718	National Trust T11362 Regional Outstanding species
<i>Ulmus viminalis</i>	Hybrid Elm	Benalla Botanical Gardens	Coordinates MGA Zone 55 X:408,491.573 Y:5,954,180.266	National Trust T11363 State Rare
<i>Flindersia australis</i>	Crows ash	Benalla Botanical Gardens	Coordinates MGA Zone 55 X:408,697.291 Y:5,954,280.60	National Trust T11361 Regional
<i>Ulmus Urban</i>	Urban Elm	Benalla Botanical Gardens	Coordinates MGA Zone 55 X:408,638.815 Y:5,954,213.501	Planted by the Hon. Mark Birrel 1995
<i>Ulmus minor</i> 'Sariensis'	Jersey Elm	Benalla Botanical Gardens	Coordinates MGA Zone 55 X:408,642.181 Y:5,954,226.332	'Seminar tree planted by Dr Phillip Moors
<i>Quercus suber</i>	Cork Oak	Tatong Tolmie Road Sawyer Road intersection	Coordinates MGA Zone 55 X:422,218.541 Y:5,926,185.698	National Trust T12090 Regional Refer file E1277
<i>Eucalyptus camuldensis</i> x <i>E. blakelyi</i>	River Red Gum X Blakelys Red gum	771 Tatong Tolmie Road	Coordinates MGA Zone 55 X:423,177.241 Y:5,928,570.119	Hume & Hovell tree clone donated by Albury Council. Refer File E52/E470
<i>Eucalyptus alligatrix</i> ssp <i>limaensis</i>	Swanpool Lima Stringy Bark	Midland Hwy Swanpool	Coordinates MGA Zone 55 X:410,835.193 Y:5,932,824.948	Endangered species.
<i>Auracaria bidwillii</i>	Bunya Pine	Midland Hwy Swanpool	Coordinates MGA Zone 55 X:410,760.137 Y:5,932,994.065	National Trust T12108 State Refer Avenue of Honour
<i>Morus nigra</i>	Mulberry	460 Kilferra Road Benalla	Unknown	Private Tree National Trust T12337 Refer DOC17/50901
<i>Eucalyptus camuldensis</i>	River Red Gum	174 Witt Street Benalla	Coordinates MGA Zone 55 X:410,567.731 Y:5,956,443.525	Private Tree National Trust T11365 Private tree

Significant trees are those classified on the Significant tree register or classified by the National Trust <http://vhd.heritage.vic.gov/search/nt-search>

Apart from minor pruning and maintenance any action affecting Significant trees is to be approved by Benalla Rural City Council unless emergency treatment is required.



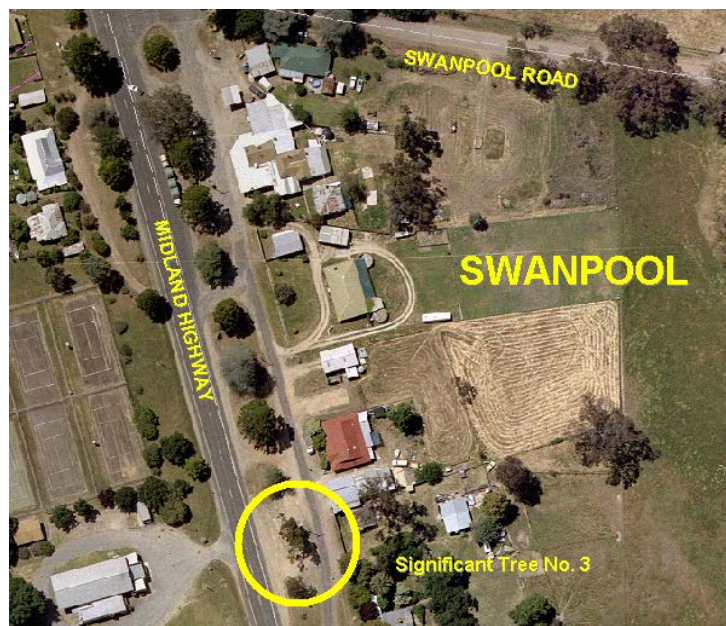
Quercus suber
(Cork Oak)
TATONG





Eucalyptus alligatrix ssp. limaensis.

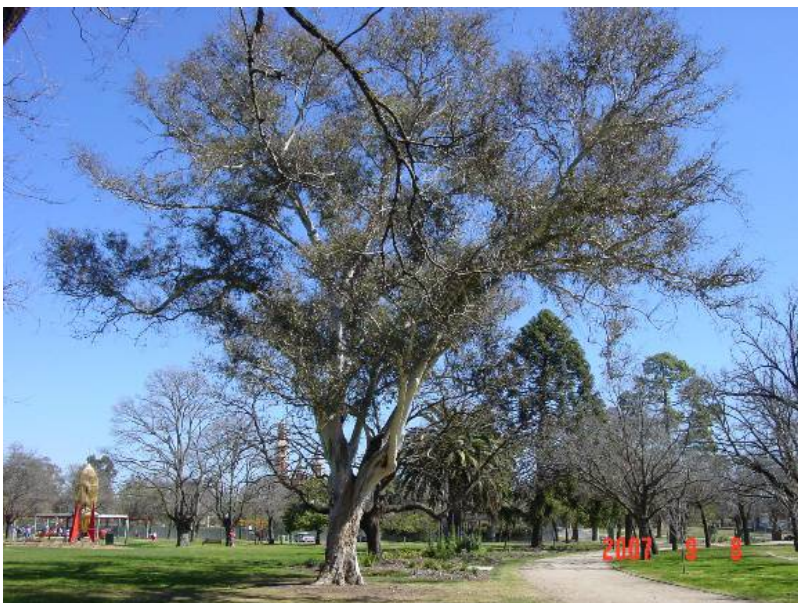
SWANPOOL





***Ulmus viminalis* Hybrid
Elm**

**BENALLA BOTANICAL
GARDENS**



***Eucalyptus leucoxydon*
Yellow Gum**

**BENALLA BOTANICAL
GARDENS**



*Eucalyptus
camaldulensis x blakelyi*
'Hume & Hovell Tree'

TATONG TOLMIE ROAD



Private Property



*Eucalyptus
camuldensis*
Red Gum

BENALLA

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

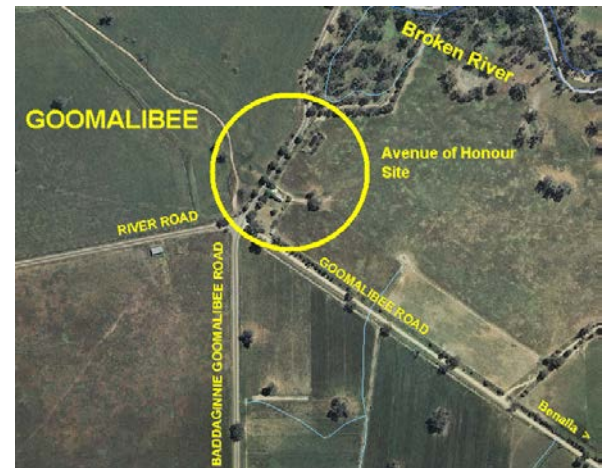
Appendix C

AVENUES OF HONOUR



**Avenue of Honour to
Early Pioneers**

GOOMALIBEE





Avenue of Honour SWANPOOL

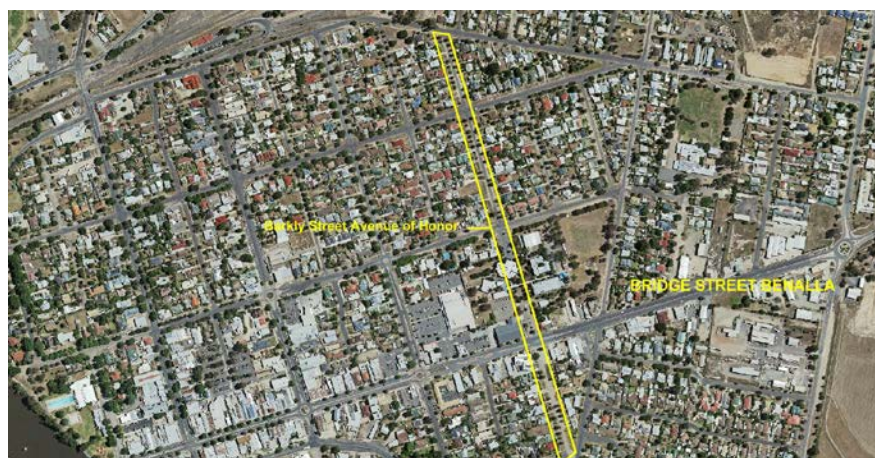
National Trust T12108





Avenue of Honour to Barkly Street

BENALLA



Appendix D

TREE INSPECTION SCHEDULE AND LEVEL OF SERVICE

URBAN TREE INSPECTION SCHEDULES AND LEVELS OF SERVICE

Tree Identification and Condition Inspection

Subject to continued budgetary allocations the Benalla Rural City has commenced an identification and condition assessment program on all street /parkland trees within the urban areas within the municipality as defined in **Appendix G**– Scope of Tree Maintenance Program.

Initial Identification and Condition Assessment Program

All trees deemed to be street and /or park trees of significant size or importance will be mapped so as to enable individual identification of each tree on Councils mapping systems. This program enables readily available information on each tree to be accessible from maintenance purposes. However, this process will be undertaken over a period of time subject to budgetary allocations.

Condition assessments of each tree will be undertaken as part of this initial identification program. These condition assessments will form the basis of a maintenance program or a capital replacement program for the future.

Such a program will be undertaken by approved experienced tree management personnel to enable an independent audit evaluation system to be established.

Phase One of this program was undertaken in June 2008 followed shortly afterwards by Phase Two in August 2008. Based on those areas identified as high risk within the risk hazard zone map, as follows, the initial audit provided data as to the risk presented by each tree along with other relevant information enabling a tree maintenance program to be developed.

It is proposed that a continuation of the audit to ensure all trees are identified and condition rated will be undertaken based on the risk assessment area map.



Street trees vary in species, age, size and function. Many street trees provide shade and shelter in parking areas within the urban environment.

For each tree the information collected will be as detailed below:

Importance	Item Number	Description
Minimum Data set	1	Asset Id
	2	Inspection Date
	3	Inspector
	4	GPS
	5	Botanical Name
	6	Common Name
Highly Recommended data fields	7	Street Tree/Park Tree
	8	Address
	9	Suburb
	10	Postcode
	11	Street Planted
	12	Height (m)
	13	DBH (mm)
	14	Health
	15	Structure
	16	Useful Life Expectancy
	17	Works
	18	Priority
	19	Risk Assessment
Recommended Data Fields	20	Origin
	21	Age
	22	Defects
	23	Powerlines
	24	Planting Width
	25	Digital Photo

Table 1 Data Fields for Street & Park Trees

Street Planted:	Civic Centre Forshore Reserve	Easting:	409067.426
Street Address:	18 FAWCKNER DRIVE, BENALLA 3	Northing:	5954240.927
Nature Strip:	Park Tree	Inspection Date:	13/06/2008
Street/Park:	Park Tree	Inspected by:	LTC
Tree Number:	710	Powerlines:	None
Botanical Name:	<i>Corymbia citriodora</i>	Failure Size:	26-100mm
Common Name:	Lemon-scented Gum	Failure Potential:	Very high
Status:	Native	Target Factor:	Pedestrians- <1 per hour
Height (m):	8	Risk of Harm:	1 in
DBH (cm):	360		41,000
Health:	Good		
Structure:	Poor	Comments:	
ULE:	20+ years		
Maturity:	Mature		
Recommended Works:			
Formative pruning		Defects:	Canopy active split, Canopy codominant
Works Priority:	Moderate		



Fig 1 An example for the initial condition rating outcomes

A risk assessment of each tree forms an integral part of the initial condition assessment. No tree can ever be considered 100 per cent safe, the level of risk must be at an acceptable level.

Active splits in the main trunk of a tree or the entire tree is moving in the ground, the tree may in the assessor's opinion, have a 100 per cent possibility of failure in the short term. Whereas if there is little potential for tree failure then the hazardous nature of a tree is reduced.

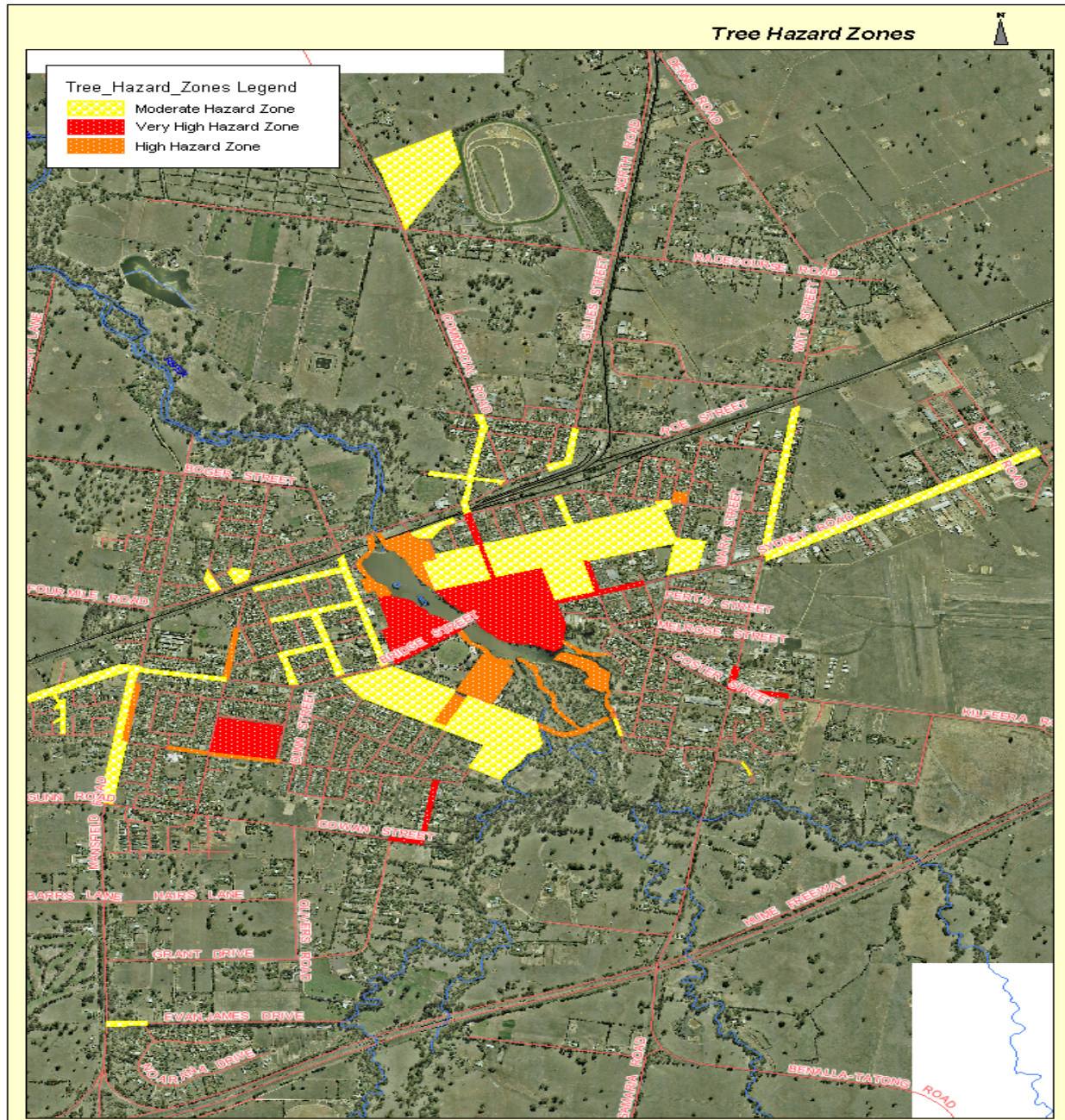
Following the tree audits the risk assessments are to be used as a guide to the priority of works and allows high risk trees to be targeted to reduce potential for failure and injury. In the long-term, tree failure is reduced and safety of the urban tree resource is increased.

The lower the Risk of Harm rating the greater the need for maintenance. From the assessments a works program can be created to include those trees with low ratings based upon Council budget allocations.

Ongoing Inspection Program

An ongoing inspection regime is to be implemented to ensure continued monitoring of all identified and maintained trees. Such an inspection regime is to be based on Urban Tree Hazard Zones with frequency of inspections as shown in **Table 2** below.

The Benalla Urban Tree Hazard Zones are highlighted on the plan below.



Map 1 - Benalla Urban Tree Hazard Zones

The zones are defined according to the criteria as shown in **Table 3 – Tree Hazard Zone Identification Example Characteristics** as follows.

Very High Risk Hazard Zone:	Example: CBD, Benalla Gardens, Churchill Park, McConnan Street, Kilfeera Road –Cooinda precinct.
High Risk Hazard Zone:	Example: Lakeside walking path precinct, park reserves, school precincts near larger trees.
Moderate Risk Hazard Zone:	Example: Benson Street, Arundel Street, Benalla Street, Maginness Street, Sydney Road, Charles Street and other where moderate risk hazard zone may apply.
Low Risk Hazard Zone	All other areas not considered in above risk categories.

Review and updating of the hazard zones is to be undertaken annually to ensure relevance and inclusion of new areas if deemed appropriate.

Table 2 Adopted minimum inspection schedules for hazard zone categories

Benalla Rural City

Urban Tree Hazard Zone and Inspections Regimes

<i>Hazard Zone Categories</i>	<i>Colour Codes</i>	<i>Timing of Inspections</i>	<i>Suggested Inspection Method</i>	<i>Comments</i>
Very High	Red	Annual	Walk-by / Visual Tree Inspections	Asset assist footpath inspections, Electrical Line Clearance Audit, Elm Leaf Beetle Audit.
High	Orange	2 Years	Walk-by / Visual Tree Inspections	Asset assist footpath inspections, Electrical Line Clearance Audit, Elm Leaf Beetle Audit.
Moderate	Yellow	4 Years	Walk-by / Visual Tree Inspections	Asset assist footpath inspections, Electrical Line Clearance Audit, Elm Leaf Beetle Audit.
Low	Green	6 Years	Walk-by / Visual Tree Inspections or Drive-by windshield Surveys	Asset assist footpath inspections, Electrical Line Clearance Audit, Elm Leaf Beetle Audit.
All Rated Zones	NA	After Severe Storms	Drive-by windshield Surveys	If potentially hazardous trees are detected, follow-up with individual tree inspections.

Table 3 Tree Hazard Zone Identification Example Characteristics

<i>Hazard Zone Categories</i>	<i>Colour Codes</i>	<i>Examples</i>
Very High	Red	Emergency access routes, High use parks / public areas, CBD areas, Individual trees or neighbourhoods with very high risk trees - very poor condition, dead, storm damaged etc
High	Orange	Main thoroughfares, high use parks, playgrounds, picnic areas, parking lots near high use areas, individual trees with high-risk trees - old growth, large diameter, mature, "problem" trees, storm damaged etc.
Moderate	Yellow	Secondary roadways, neighbourhoods with moderate density of large diameter, mature or "problem" trees species, moderate use parks, playgrounds, parking lots adjacent to moderate use areas.
Low	Green	Low use roads and public areas with dispersed recreation, open areas with limited use or access, neighbourhoods with low density of large diameter mature or "problem" trees species.

Ref:

Urban Tree Risk Management - A Community Guide to Program Design and Implementation

The reference material referred above is believed to be of world best practice and therefore considered as valuable in assessing hazard zone characteristics.

Programmed Inspections

Beside the tree hazard zones and inspection regimes, a tree inventory is programmed every six years on all trees in the townships, including Benalla, Winton Thoon, Tatong, Swanpool, Baddaginnie, Goorambat and Devenish. Each tree is individually have collection of tree data in Streets, Parks and Council managed Land.

Such a program will be undertaken by approved experienced tree management personnel only with a minimum Level 5 Arboriculture qualification to enable an independent audit evaluation system to be established.

All trees deemed to be street and /or park trees of significant size or importance will be assessed so as to enable individual identification of each tree on Councils mapping systems. This program will enable readily available information on each tree to be accessible for planning and maintenance purposes.

A total of approximately 9,786 mature street trees are required to be assessed within the city over a two-four year period. Each tree is to be accessed by the Arborist, the relevant data fields recorded and the completed tree inventory submitted in one continuous work program.

The tree audits will incorporate all recommended data collection fields including the risk assessments, which are to be used as a guide to the priority of works and allows high risk trees to be targeted to reduce potential for failure and injury. In the long-term, tree failure is reduced and safety of the urban tree resource is increased.

The number of trees to be assessed are:

- 2019 Phase One - Trees 4,320 Benalla East, Benalla CBD, Benalla Botanical Gardens, Riverine Parkland Walking Track, Rural Townships – Tatong, Swanpool, Baddaginnie, Goorambat, Thoon, Winton and Devenish
- 2019 Phase Two - Trees 5,073 each Benalla West.

Isolated Trees or Streets requiring programmed inspections

Arborist Inspection Date	Street Address	Concern	Timing of Inspection	Date of last Inspection by whom	Year to be Inspected
Homewood Mar. 2006 Feb. 2014, Aug. 2016	McConnan Street	Mature native trees, urban forest, branch shed	Five years	2015	2021
Homewood Apr. 2015	2 Amber Avenue	Mature Red gum, resident concerns	Annually	2018 Steegstra	2019
Ryder Apr. 2016	130 Burness Road	Grey box south of driveway	Four years	2017 Steegstra	To be Pruned 2020
Ryder Feb. 2017	15 Rivergum Reserve	Mature native trees, urban forest, branch shed	Three years	On-Going	2020
Ryder Mar. 2017	Samaria Road across from Benalla Health	Mature native trees, urban forest, branch shed	Five years	On-Going	2022
Ryder Aug. 2017	Ackerly Avenue carpark between stadium and tennis court	Redgum	Five years	On-Going	2022
Homewood Feb. 2014	Fawkner Drive	Mature native trees, urban forest, branch shed	Five years	On-Going	2019
Ryder 2013-2025	Church, Mair Carrier, Benalla Nunn, Arundel Street	Elms in senescence succession planting	Five years	2013, 2016, 2018	Ongoing
Steegstra May 2018	Kilfeera Road Red gums at Coinda	18 Trees	Five years	On-Going	2023
Enspec Dec. 2009 Oct. 2014	9 Mitchell Street	Tree root Barrier, Root radar if breeched re-install Barrier	10 Year	On-Going	2024

Levels of Service

Asset Function "Levels of Service"

Council's Street tree infrastructure maintenance plan documents and details assets that have been planted to provide a functional purpose or "level of service".

Levels of Service can be defined as being that performance standard and measure within set constraints under which the Benalla Rural City maintains then street and park trees of the municipality.

The functional purpose for the provision of trees within the urban environment is defined within the Street Tree Policy document and this section defines the levels of service under which all such trees are maintained.

Council manages and maintains the street tree network with funding for planting and maintenance being derived from Council's rate revenue.

A brief description outlining the various maintenance activities is as shown in the ***Tree Maintenance Levels of Service*** tables below.

Key Outputs & Performance Standards as currently conducted.

Output Area	Performance Standard	Performance Measure	Constraints
TREE MAINTENANCE LEVELS OF SERVICE			
TREE INSPECTION TIMELINES	<ul style="list-style-type: none"> Visual inspection for tree defect inspections. 	<ul style="list-style-type: none"> Within timeframes as detailed in Inspection Regimes Schedule. 	<ul style="list-style-type: none"> Budgetary restrictions.
DEFECT IDENTIFICATION	<ul style="list-style-type: none"> All defects likely to cause damage to health of tree. Defects likely to result in falling of tree or branches. Defects likely to cause loss of protection to tree/s. 	<ul style="list-style-type: none"> No defects likely to result in the health deterioration of tree. No defects likely to result in falling tree / limbs causing a danger to persons. No defects likely to cause loss of protection for tree/s. 	<ul style="list-style-type: none"> Isolate tree within 1 hour of identification of dangerous defects in Very High, High & Moderate defined categories. Removal of hazardous defect in accordance with Risk Management Guidelines: <ul style="list-style-type: none"> High Risk: within one month Minor Risk: within three months
ROAD CLEARANCE ENVELOPE	<ul style="list-style-type: none"> Roadway clearance envelope of 5.0 metres to be provided along vehicle travel paths. 	<ul style="list-style-type: none"> No plant growth to protrude into clearance envelope for vehicle access paths i.e. parking bays, traffic lanes, road shoulders. 	<ul style="list-style-type: none"> Memorandum of Understandings for Rural Road Clearance Agreements as per written agreement of the Secretary of the Department of Sustainability and Environment. Inappropriate tree plantings within urban areas identified. Resource requirements for treatments.
POWERLINE CLEARANCE	<ul style="list-style-type: none"> Powerline Clearance to comply with Chief Electrical Officer's requirements within Declared Area of Benalla. 	<ul style="list-style-type: none"> All clearance requirements comply. 	<ul style="list-style-type: none"> Powerline clearance program conducted annually.

Key Outputs & Performance Standards as currently conducted.

Output Area	Performance Standard	Performance Measure	Constraints
SIGHT CLEARANCE	<ul style="list-style-type: none"> Clear sight distances maintained in accordance with traffic management guidelines. 	<ul style="list-style-type: none"> No sight obstructions identified. 	<ul style="list-style-type: none"> Locations for sight clearances treated within three months of identification.
STREET TREE PLANTINGS	<ul style="list-style-type: none"> New plantings in accordance with adopted tree planting program. Replacement plantings for removed trees. Planting of vacant sites (potential planting sites) as identified. 	<ul style="list-style-type: none"> Planting of street trees undertaken in response to landowner request. Long term plan for new plantings undertaken in accordance with policy and maintenance plan. 	<ul style="list-style-type: none"> Plantings undertaken annually, generally July-August period. Budgetary constraints. Subject to Climatic conditions – non declared drought periods. Planting detail conditions to be complied with.
PEST CONTROL	<ul style="list-style-type: none"> Elm Leaf Beetle elimination program. 	<ul style="list-style-type: none"> No tree affected by Elm Leaf Beetle infestation. 	<ul style="list-style-type: none"> Program treatment to prevent / eliminate elm leaf beetle annually undertaken on 3 year cycle to ensure all trees subject to infestation are treated.
STREET TREE MANAGEMENT	<ul style="list-style-type: none"> All street trees are maintained to ensure optimal performance, aesthetic appearance and health condition are achieved. Formative pruning to be undertaken to achieve required tree shape and removal of deformations. Footpath Clearance heights available for pedestrians. 	<ul style="list-style-type: none"> No trees identified as plantings of an unsuitable character, condition without a treatment program identified. Street trees to be pruned to achieve required performance standard. Clearances above all footpaths comply with Footpath Asset Management Plan requirements for clearance height. 	<ul style="list-style-type: none"> Adequate resources available to enable program development. Program conducted annually. Drought protection treatments to mature trees as identified. Two year watering maintenance treatments for young tree plantings.

Output Area	Performance Standard	Performance Measure	Constraints
	<ul style="list-style-type: none"> ▪ Crown reduction program to reduce potential risk of failure of tree. ▪ Root attenuation treatments to reduce potential impact on council or private asset infrastructure. 	<ul style="list-style-type: none"> ▪ All street trees to be identified as having a low risk potential due to large crown growth. ▪ All street trees not to adversely impact on asset infrastructure. 	
TREE REMOVAL	<ul style="list-style-type: none"> ▪ Tree removal program for dead, dangerous or diseased trees in accordance with Tree Maintenance Management Plan. 		<ul style="list-style-type: none"> ▪ Resources available for program delivery. ▪ Removal of tree in accordance with risk assessment of potential danger to property and persons. ▪ Removal of hazardous tree in accordance with Risk Management Guidelines: <ul style="list-style-type: none"> - High Risk: within one month Minor Risk: within three months

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix E

PRECINCT PLANS

Precinct Plans

Introduction.....	63
Precincts	623
Precinct A	62
Precinct B	63
Precinct C1	67
Precinct C2	68
Precinct D	66
Precinct E	67
Precinct F	68
Precinct G	69
Precinct H	70
Precinct I	71
Precinct J	72
Precinct K	73
Gateways and Key Streets	77
Samaria Road / Bridge Street	74
Baddaginnie Road / Bridge Street	74
Shepparton Road (Midland Highway - North)	78
Kilfeera Road	78
Mansfield Road (Midland Highway – South)	75
Samaria Road – (Benalla Tatong Road)	75
Key Streets	77
Midland Highway – Mansfield Road	77
Bridge Street	78
Samaria Road / Witt Street	80
Nunn Street	81
Coster Street	81
Arundel Street - North	82
Arundel Street - South	83
Faithfull Street	84
MacKellar Street	85
Salisbury Street	86
Cowan Street	90
Clarke Street	88
Thomas Street	89
Waller Street	90

Precinct Plans

The Benalla Township can be categorised into precincts of similar development pattern, architectural form and environmental qualities.

The analysis of the precincts, conducted by Des Gunn Landscape Design in 2007, suggests that some trees will be more suitable in some precincts than in others.

The following is adopted from the above analysis and the draft Policies and Strategies document prepared by Des Gunn Landscape Design, February 2007.

Introduction

The following plan shows the Benalla township area defined into precincts or areas of similar character. The basis for the categorisation is mainly the subdivisional patterns with street reservation width, planting styles and architecture often related to the period and form of urban subdivision; as well as the major natural feature bisecting the urban area, the Broken River and Lake Benalla.

As well as precincts of similar character, the urban area contains significant traffic arteries whose role in the hierarchy of roads and in the urban structure of the town is so important that they should have a uniform landscape treatment which reflects that role. A particular aspect of these key arteries is that they are often associated with gateways or importance entrances to the town.

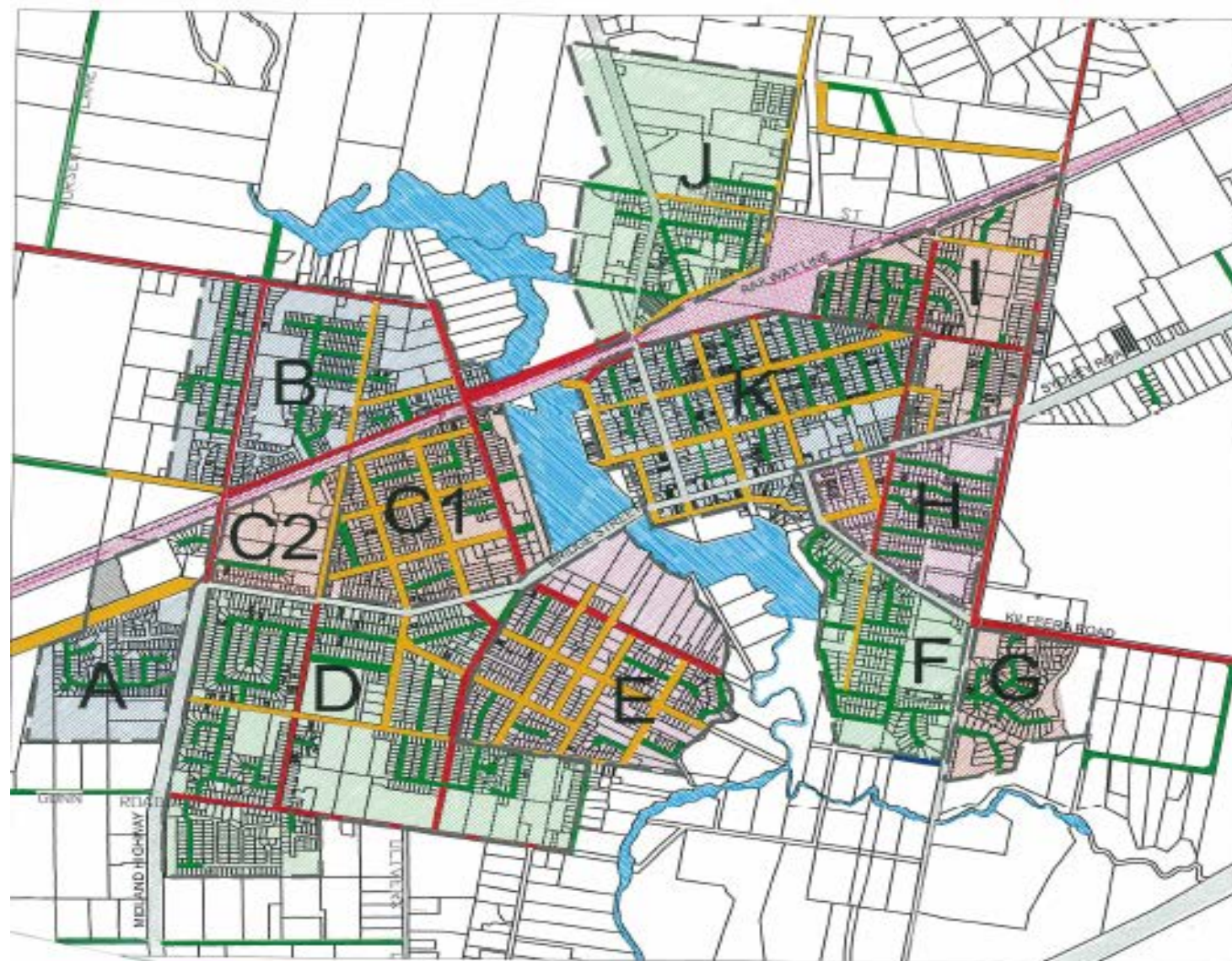
A major effort of renewal in street tree planting will be required in the coming years. The legacy of street trees in Benalla is a valuable asset which needs to be rejuvenated and built upon to serve a new generation of residents.

Where some genuine basis can be found for distinguishing between parts of the town, these precincts can form the basis for thinking about trees appropriate for the various conditions within that precinct.

The Arborist will ultimately determine the best suited tree species for each particle street in the precinct.

The following describes these precincts, key roads and entrances to the town.

Benalla Township - Precinct Map



Plan:	Precinct Plan		
Project:	Benalla Street Tree Policy		
Client:	Benalla Rural City		
Date:	September 2006	Drawn: DG	Designed: DG
Sheet:	1 of 2	Job No:	BC 200
Scale:	N.T.S.	Revised:	

Des Gunn Landscape Design
 ph: 02 937 024 542
 44 Benalla Street, Benalla 3672
 Mobile: 0418 343 352 Fax: (03) 5752 2333
 Office: (03) 5752 2008 email: desgunn@desgunn.com.au

PRECINCTS

Precinct A

General Character

This precinct is characterised by curvilinear court style subdivision layout, 1980's single story brick housing, lack of front fences, and uneven representation of street trees.

Existing Street tree character

- Some remnant trees and views to treed hinterland.
- Melaleucas and Callistemons predominate
- Quite a few gaps in planting

Proposed Street Tree character

- Subject to community agreement, maintain the principal theme of native vegetation
- There is a need for introduction of new planting themes to enhance shade.
- Use of native trees with larger canopies, appropriate in scale to the road reserve, even if sometimes more open, will improve the comfort, appearance, and habitat value of the street.
- Consider *Acacia pendula*, *Eucalyptus eximia*, *Angophora costata*, *E. mannifera* 'Little Spotty', *E. sideroxylon* 'Rosea' in appropriate locations and densities
- Planting into existing gaps will create a mosaic character which is appropriately informal for native trees, and is inevitable in any case if we are to retain healthy examples of previous plantings
- use opportunities on open space frontages without power lines or housing to plant larger trees.

Refer also to separate comments on:

- Midland Highway
- Midland Highway/Bridge Street Gateway

Precinct B

General Character

Bounded by open space and the railway line, this precinct has the feel of a distinct enclave. A mix of smaller and larger allotments persists as subdivision proceeds unevenly. Housing stock is mainly post – fifties and varies from modest fibro homes to more substantial modern brick dwellings. Streets are wide with an open feel to the landscape.

Existing Street tree character

- Significant remnant native trees are present
- Existing trees in Faithfull Street are too small in scale for the street and its function.
- several good examples of native trees. Brush Box east of Faithfull Street performing OK.
- Ash and Melaleucas are common

Proposed Street Tree character

- Could accommodate both native and exotic themes due to mix of previous plantings many of which are worthy of retention.
- Streets with Desert Ash and Prunus spp. should be progressively considered for replacement species with broad canopies from the approved list.
- Maintain any large Ash which are away from power lines and not disfigured by pruning, during any transition to a new species (e.g • Cook Street)
- Consider larger trees in Faithfull Street by planting in carriageway at the edge of the road, or by introduction of a centre median.
- progressively replace Ash and Prunus themes west of Faithfull Street with broader canopy trees.
- Two significant areas of underdeveloped open space occur at the centre of the precinct – a good opportunity for trial plantings of local natives, as well as for planting of canopy trees set well off the road edge. (Some are present)
- Use rail and perimeter open space edges to plant larger trees where service locations allow.

Refer also to separate comments on:

- Faithfull Street
- Arundel Street North

Precinct C1

General Character

This precinct features wide road reserves, some avenues of large deciduous trees, generous housing setbacks with a variety of historical styles from the Victorian period to the present, and occasional large trees in front gardens. This precinct is bounded on the east by the Botanical Gardens and the Lake which create a special ambience. The Catholic Church and School precinct in Arundel Street, together with the adjoining streetscape of Elms, is one of Benalla's signature images.

The open drains in association with the large deciduous trees together with the grid subdivision pattern, evoke an earlier time, of more generous public spaces. In some senses the absence of kerb and channel not only enhances the charm of the street, but sanctions the larger shade trees so essential to bringing a sense of scale and proportion to a wide street.

Existing Street tree character

- Mature Elms, Arundel Street, and elsewhere
- a variety of themes present including *Melia* spp, *Melaleuca* spp, *Fraxinus*.
- few consistent avenues away from Arundel Street and Goomalibee Street
- in particular most east west streets inconsistent in planting pattern

Proposed Street Tree character

• Maintain and extend where present, and progressively introduce (subject to community agreement) large deciduous avenues in wide streets, and compact deciduous trees in smaller streets, planted as single species avenues. This approach is intended to reinforce the historic significance of the early grid. For the same reason retention of the open drains is recommended.

Refer also to separate comments on:

- Bridge Street
- Clarke Street
- Arundel Street North

Precinct C2

General Character

This precinct is dominated by school grounds and public open space. Large remnant trees are visible from many vantage points. Small areas of modest relatively recent housing stock occur on two edges.

Existing Street tree character

- Large Ash present along southern school boundary.
- *Melaleuca linariifolia* common.
- Large remnant trees in open space areas

Proposed Street Tree character

- Maintain healthy Ash away from powerlines whilst replacing senescent trees and those disfigured by power line pruning with a more appropriate species
- Different species each side (ie two rows, each of a single species) can be an acceptable compromise when the payoff is an exceptionally large shade tree on one side.
- Clarke Street requires a consistent street tree imagery for its entire length, including both sides of Bridge Street. Take advantage of areas without power lines to plant large trees.

Refer also to separate comments on:

- Faithfull Street
- Bridge Street
- Clarke Street

Precinct D

General Character

Dominated by post 1960's housing, this precinct initiates the trend away from permeable grid layouts towards more use of court bowls and even some curvilinear layouts. (Current urban design best practice once again favours grid subdivision).

Existing Street tree character

- Some consistent plantings are developing where power has been undergrounded (e.g Gleditsias in Statesman Drive)
- Brush Box do not make an equivalent impact to Gleditsias and Pinoaks
- Recent street tree plantings in newly subdivided areas are a mix of natives and exotics, but appear to be consistent avenues of one or the other. Stock sizes used in new planting appears to vary widely.(from 10mm to 35mm calliper)
- some important streets (e.g Cowan Street, Waller Street, Margaret, Thomas) lack any sense of uniformity with multi species plantings of various sizes.
- *Melaleuca linariifolia* too common
- some good specimens of *Melia azaderach* and *Cinnamomum camphora*
- many Ash which will require progressive replacement.

Proposed Street Tree character

- Deal with the main streets in the precinct first – Cowan Street, Waller Street, Clarke Street, Thomas Street. Develop consistent avenues of shade trees. Cowan and Waller Streets in particular may play a corridor role in linking remnant vegetation along the Broken River with remnant vegetation along the Midland Highway and beyond.
- Planting themes can be native or exotic due to mix of previous plantings, with a preference for native planting on east – west streets linking the Midland Highway and the Broken River Floodplain..

Refer also to separate comments on:

- Midland Highway
- Bridge Street
- Clarke Street
- Cowan Street
- Thomas Street
- Waller Street

Precinct E

General Character

This area is characterised by wide road reserves, strong street tree plantings and historic architecture, as well as having a special ambience deriving from expansive adjacent open spaces and proximity to the river/lake corridor. With Precincts C1 and K Precinct E shares the broad open grid pattern, with generous road reserves, embodying the town's earliest subdivision pattern, and arguably still its best. The Precinct has a very open feel, with substantial vacant land, both private and public. Views to tall riparian vegetation are common. The absence of kerb and channel in many older areas adds to the charm.

Existing Street tree character

- Some truly magnificent Planes (e.g Benson Street, Garden Street, Arundel Street) and Elms (e.g Arundel Street, Cecil Street) create some of the finest streetscapes in Benalla
- Many senescent Ash and Grevillea robusta trees are present
- Substantial Red Gum remnant are scattered throughout
- Smaller Streets may have little or uneven planting
- Multi species planting is common
- Some streets very poorly planted (e.g Egmont)

Proposed Street Tree character

- Use local native trees on neutral (non-residential) streetscape edges, abutting flood prone open space, spaced to allow longer views from residences.
- Maintain character of large deciduous trees in key streets where these themes are already present, especially where open drains allow larger trees
- Smaller streets at eastern end abutting floodplain corridor – small native trees preferred, subject to community support.
- Smaller streets to west side of precinct - compact deciduous trees to reinforce the historic 'European character' of the early grid subdivision.
- Further plantings in open space areas can reinforce streetscapes where appropriate with large exotic trees, but can also provide opportunities to trial local native plants. This is discussed in more detail elsewhere in this report.
- Refer comments under Precinct D re. Waller Street

Refer also to separate comments on:

- Arundel Street South
- Thomas Street
- Cowan Street
- Waller Street

Precinct F

General Character

Mixed architecture some pre-war but much from the '40's onwards, some established avenues, western edge addresses the Red Gum woodland open spaces along the flood plain corridor.

Existing Street tree character

- ^a General impression – lack of coherence on a street by street basis
- Internal plantings dominated by Ash and Brush Box
- Melaleucas, Melias also common
- Key street (Salisbury) lacks any uniform planting theme

Proposed Street Tree character

- Plant local natives to open space edges opposite housing (e.g Psaltis, Riverview) spaced to allow views for houses. Progressively replace Ash west side of Psaltis Parade. Choose consistent tree east side.
- Use of local natives encouraged throughout the precinct, but deciduous OK in internal streets if residents feel strongly enough.
- Priority should be given to upgrading Salisbury Street as the main collector road for the precinct. Planting for Salisbury Street should be consistent (but not necessarily the same), north and south of Coster Street.

Refer also to separate comments on:

- Salisbury Street
- Coster Street
- Samaria Road
- Kilfeera Road Gateway

Precinct G

General Character

This precinct comprises recently subdivided and developing areas adjacent to Samaria and Kilfeera Roads. Modern single story brick housing, curvilinear streets, court bowls characterise the subdivision layout. Occasional large Red Gums are retained.

Existing Street tree character

- Some areas as yet unplanted
- Mature remnant trees present both native (Red Gums) and exotic (Elms)
- No consistent street tree outcomes. Many frontages privatised, especially where paths are absent.
- Curvilinear alignment means road reserve is no longer 'legible'

Proposed Street Tree character

- Concentrate on main streets to develop consistent avenues
- Smaller courts are only a priority subject to resident request – encourage use of local natives of suitable scale
- Planting in the recently approved subdivision of 1 acre lots should be natives, local as far as possible, with emphasis on developing links to the existing floodplain vegetation.

Refer also to separate comments on:

- Kilfeera Road
- Kilfeera Road Gateway
- Samaria Road

Precinct H

General Character

A triangular precinct bounded by three relatively busy roads, this area contains two different subdivision patterns, both of which are open grid patterns. A small distinctive pocket to the west relates more to Precinct K, except that Bridge Street is a strong boundary. Here the streets are wider, the housing somewhat grander, with larger set backs and large street trees. To the east of Salisbury Street, streets are narrower and housing more modest.

Existing Street tree character

- West of Salisbury Street - mainly Ash, Brush Box, *Melia*, *Melaleuca styphellioides*, Liquidamber
- East of Salisbury Street – mainly senescent Ash, *Grevillea robusta*

Proposed Street Tree character

- Develop consistent Salisbury Street theme between Bridge and Coster Streets
- Large number of east west streets in the eastern part of the precinct suggests deciduous planting themes for winter light – but could also be native subject to community support
- East of Salisbury Street – deciduous themes preferred using substantial trees to extend from Precinct K and reflect the extent of the early grid subdivision.
- use opportunities to plant larger trees where no power lines are present (e.g southern edge of National Hire site) or in carriageway away from power lines in wide road reserves in the eastern section
- progressively move towards consistent avenue planting
- Salisbury Street should be the initial priority

Refer also to separate comments on:

- Bridge Road
- Samaria Road
- Coster Street
- Salisbury Street

Precinct I

General Character

Modest post war housing predominates in this precinct, which is an urban development edge. The nearby railway easement and scattered remnant trees contribute to the character.

Existing Street tree character

- Mixed species plantings predominate with little development of consistent themes or avenues over an entire street.
- Few trees in some streets
- Lagunarias in Salisbury Street north of Bridge Street require replacement with a new deciduous theme. A compact tree selected from the range of ornamental pears is recommended.

Proposed Street Tree character

- Key streets (Salisbury, Mackellar, Witt Streets) require priority attention with a view to developing strong and consistent avenue themes. Witt Street in particular needs large trees to reflect its scale and function.
- Smaller streets should be progressively redeveloped as single species avenues
- Planting themes could be native or exotic, with native trees preferred subject to resident community support, to reinforce the connection with large remnant Eucalypts on vacant land, including the railway corridor.

Refer also to separate comments on:

- Witt Street
- Mackellar Street
- Salisbury Street

Precinct J

General Character

Mix of residential and light industrial uses with largely older housing stock, substantial vacant land, and many mature remnant Red Gums. Bisected by the rail corridor and bounded by vacant or agricultural land the precinct has an open feel.

Existing Street tree character

- One very large, healthy Black Ironbark
- Some mature Elms and Planes
- Ash also used
- Substantial native remnants in vacant areas
- Grand entrance to town dominated by *E. citriodora* and *G robusta*.
- Many gaps in planting
- Diverse planting along Railway Place, including Conifers

Proposed Street Tree character

- Consider building on existing Elm plantings using *Zelkova serrata*
- Many situations here call for double sided streetscapes, where (against a railway corridor for example) larger trees are possible where power lines and housing are absent, and a smaller sympathetic tree can be used opposite, where power lines constrain planting
- Develop consistent avenues where power lines permit
- Progressively replace senescent *G robusta*
- Progressively replace Ash with poor form or as senescence occurs
- Extend *E citriodora* as practical to railway
- Consistent feel to main edge streets a priority: Railway Place and Gillies Street

Refer also to separate comments on:

- **Maginness Street**

Precinct K

General Character

This core precinct of 'old' Benalla includes the commercial CBD, and thus a mixture of commercial and residential properties, with commercial activity focused on Nunn, Bridge and Carrier Streets. The wide streets and open drains combine with established mature trees and older houses to evoke the earliest period of Benalla's urban development.

Existing Street tree character

- West of Smyth Street mature exotics predominate , Elms and Planes
- East of Smyth Street planting themes diverge with more evergreen plantings of *Grevillea robusta*, *Casuarina cunninghamiana* and Brush Box mixing with *Melaleuca*, *Lagunaria*, *Prunus*, *Melias* and others. Little consistency is evident on a street by street basis.
- Open or brick channel drains in wide streets allows large trees, contributes to informal rural character.
- Byrne Street – larger trees under power lines, smaller trees where no power lines are present!
- Mackellar Street, along with some other key streets, lacks a strong unified landscape theme

Proposed Street Tree character

- Retain and extend plantings of large deciduous trees in wide streets wherever they occur throughout the precinct – this means extending exotic treatments in Nunn, Bridge, Carrier, Benalla and Church Streets to create boulevards highlighting the full extent of the early grid with complementary planting.
- Smaller north south streets should be progressively planted with compact deciduous trees to reinforce precinct character
- Trials of new planting details for large exotic trees in the commercial area are discussed elsewhere in this report

Refer also to separate comments on:

- Bridge Street
- Nunn Street
- Mackellar Street
- Salisbury Street

Gateways and Key Streets

As well as these more or less homogeneous blocks, there are the key linear boundaries and through links (otherwise known as arterial roads) to consider. These are streets whose very function as through roads suggests they need a definite and distinctive landscape character.

A related aspect is the matter of gateways, where an opportunity exists at a point or points along some of the key approach streets to create a sense of arrival and identity for the town.

Samaria Road / Bridge Street Baddaginnie Road / Bridge Street

No. 1 Samaria Road / Bridge Street Gateway

A landscape plan has been prepared for this area, which is an important arrival node within Benalla's road pattern. The plan comprises a roundabout as a long term solution to traffic management issues at this key intersection. The plan also assumes future construction of centre medians on the eastern and western approaches along Bridge Street to the proposed roundabout.

Planting is proposed to be *Eucalyptus maculata* along the Sydney Road Verges east of the intersection along the Sydney Road approach, with flag poles in the approach median. West of the roundabout, verges could be planted with *Ulmus parvifolia* or *Zelkova serrata*, with centre medians planted with *Eucalyptus maculata*.

No. 2 Baddaginnie Road / Bridge Street Gateway

A landscape plan has previously been prepared for part of this area, being the western side of the Midland Highway approaching the roundabout. The roundabout itself, and all of the surrounding road verges and approaches, need to be comprehensively revisited in terms of landscape presentation, particularly as this is the major southern gate way into Benalla from Melbourne.

Suitable arrangements for truck parking elsewhere may allow a better sense of arrival at this important traffic node.

No. 3 Shepparton Road Gateway

- This northern gateway is situated at a road landscape transition at Racecourse Road. North of Racecourse road, the maintenance and enhancement of local native vegetation along the road verges is appropriate and important.
- South of Racecourse Road, a theme of single row plantings of Lemon Scented Gums is sporadically evident. It is recommended that this theme be enhanced by the adoption of a concept for a double row of Lemon Scented Gums each side where practicable south of Racecourse Road up to the commencement of the residential edge. Where remnant vegetation occurs, this should be retained, which will have the effect of creating a serial mosaic but within a generally consistent fabric of Lemon Scented Gums.

No. 4 Kilfeera Road Gateway

The eastern approach to Coster from Kilfeera Road includes some significant remnant Red Gums on and adjacent to the road reserve. There may be some potential for the intersection of Kilfeera Road/ Coster Street with Samaria Road to be further developed as a minor gateway into the town, as open spaces adjacent to the road reserve are present on at least three corners.

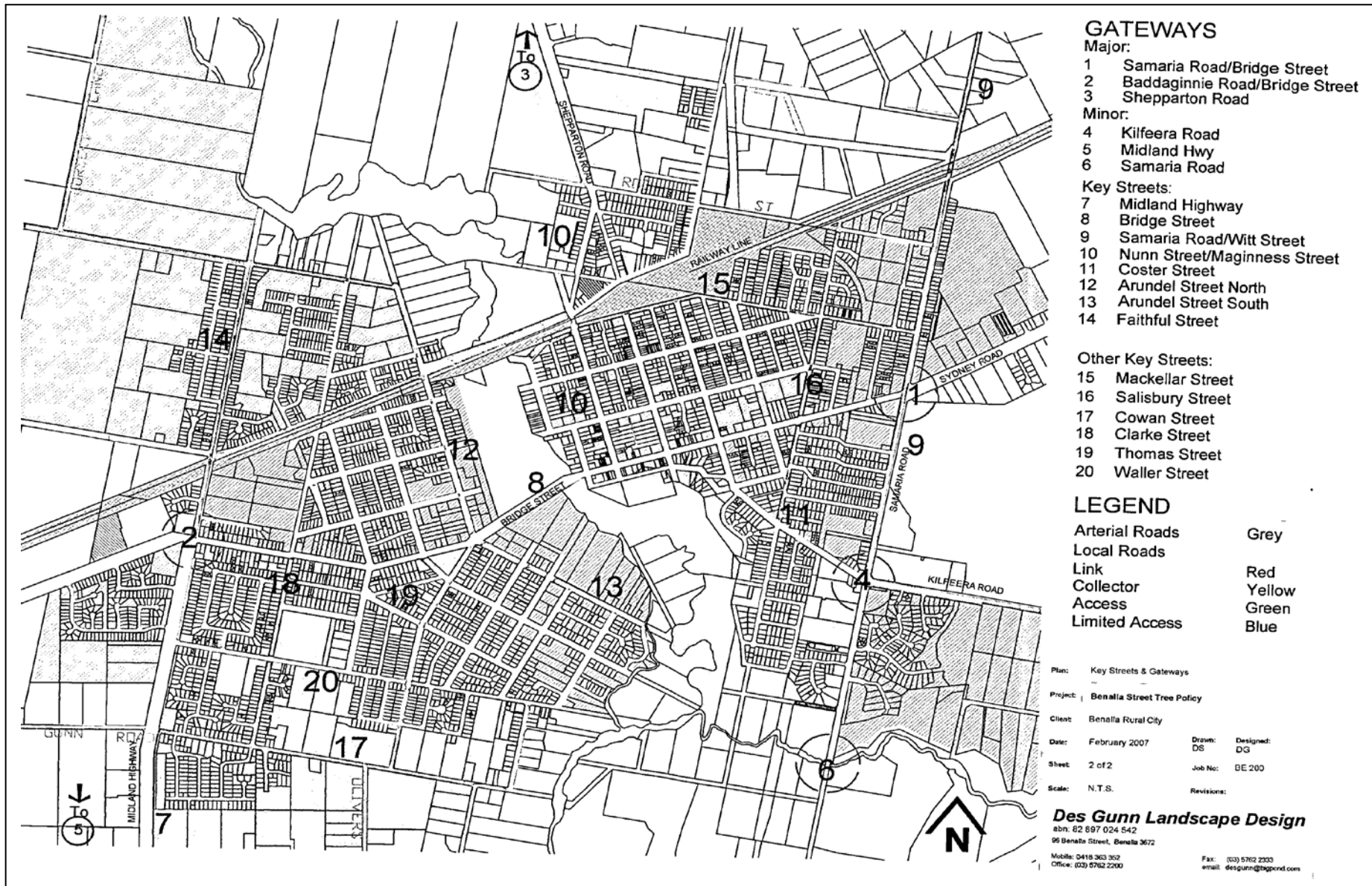
No. 5 Midland Highway Gateway

- There may be scope for a simple gateway treatment at the road verges In the vicinity of the Hume Freeway access point at the grade separated intersection with the Hume Freeway. It is not appropriate to overdevelop the area with a multitude of signs, but a simple massed planting treatment combined with a simple sign on a curved masonry wall (Benalla – Rose City, with arrow) may be useful and appropriate.

No. 6 Samaria Road Gateway

This approach to Benalla along the Benalla – Tatong Road is characterised by substantial remnant Red Gums along the road verges, together with occasional mature Pines. The tall Eucalypts can form the basis for further similar plantings to create a continuous treed approach to Sherwell's Bridge and beyond to Stacey Street. Beyond that point, the proposed approach to planting in Samaria Road between Kilfeera Road and Bridge Street could be continued south to Shawbrook Avenue.

Benalla Township - Gateway and Key Street Map



Key Streets

Midland Highway – Mansfield Road

•No. 7 Midland Highway, from the Hume Freeway to Bridge Street

This major southern point of access to Benalla from the Hume Freeway is an important gateway and arrival setting. Existing character is shaped by an outstanding road verge of mature River Red Gums. This natural quality is enhanced by the presence of Benalla Golf Club with its framework of native trees, on part of the west side.

The proposed approach to future planting along this approach road is as follows:

- retain and manage remnant native trees for long term survival
- add linear plantings of local Wattles to introduce seasonal colour (from mid-winter to October) and to reflect the proposed use of such colour at the other main approach into town along Sydney Road from the northernmost Hume Freeway access.

Refer also to:

- No 5 Midland Highway Gateway
- Existing Plan, Bridge St Roundabout approach

Proposed species

E. camaldulensis

E. melliodora

Acacia species:

A. dealbata

A. flexifolia

A. implexa

A. melanoxylon

A. pravissima

A. verniciflua

Number 8: Bridge Street, from the Midland Highway to Samaria Road/ Witt Street

This is the pre-eminent thoroughfare in terms of the way the town is perceived. Bridge Street links and gives access to the main commercial area, the Lake, Botanical Gardens and Showgrounds attractions. Prior to the construction of the Hume Freeway bypass, the old Hume Highway followed Bridge Street through the town. (Refer also to comments Gateways No 1, and 2).

Street tree planting in Bridge Street should reflect the importance of the street, and also its' scale. Large trees are required on both counts. This does not mean that a standard uniform approach to street trees is appropriate for the full length of Bridge Street. Conditions and planting opportunities vary along the street and planting will reflect this. The key point is that there is an overall sense of flow and continuity to the street tree planting, and that it assists with the intelligibility of Bridge Street's role in the hierarchy of streets in the town.

The general concept is for native approaches (i.e east of Witt Street and on the approach to the Faithfull Street roundabout along the Midland Highway);

East of Witt Street

- Refer to existing Gateway Landscape Concept
- Maintain Eucalypt theme on Easter approach to the town.

Witt Street to Smyth Street

- This section has been previously been considered suitable by council and Vicroads for installation of a planted centre median.
- Such an approach would allow a transitional street tree planting, where the native theme on the approach east of Witt Street is continued by planting of Spotted Gum in the centre median, whilst the verges are planted with a deciduous tree having a substantial canopy to suggest approach and arrival at the main commercial area.
- It is recommended that Aerial Cable Bundling be progressively introduced in Bridge Street to allow pruning practices consistent with development of a substantial shade giving tree canopy.

Smyth Street to Lake

- Maintain existing *Platanus spp* through the main commercial strip.
- Trial improved tree planting detail to minimise Kerb and Channel impacts (Carrier Street)

Lake to Arundel Street

- Maintain existing approach which builds on the strength of existing Elm and Plane Plantings

Arundel Street west to roundabout

- In the longer term a centre median treatment is recommended for this section of Bridge Street to match the treatment between Witt Street and Smyth Street. This will allow the same transitional landscape of substantial deciduous trees on the verges with Spotted Gum or similar in the centre median.
- As part of the overall concept for Bridge Street, it is recommended that Aerial Cable Bundling be progressively introduced between Arundel Street and the roundabout at Faithfull Street. This will allow a similar tree planting treatment to that proposed for the section between Witt Street and Smyth Street

Possible Species

CBD: Replace existing with like species as required

East of Smyth, west of Arundel: Verges: Zelkova serrata, (Japanese Zelkova),

Ulmus parvifolia (Chinese Elm.

Future Centre median: E. Maculata

No. 9 Samaria Road/ Witt Street

This north – south artery forms a significant edge to the core residential area of the town. The western side comprises a mix of Hospital, housing, commercial and service premises. The eastern side includes an aged care facility, the airport, Tafe campus, motels, and some housing at the southern and northern ends. A landscape plan has previously been prepared for the section between Cioster Street/Kilfeera Road and Bridge Road.

South of Kilfeera Road

(Refer also to notes on Samaria Road Gate way)

A short section of more recent housing development occurs in this section, which should be landscaped to correspond with the approach adopted in the plan referred to above (see Appendix x)

Kilfeera Road to Bridge Street

Existing planting mainly comprises *Melaleuca* spp. A notable stand of remnant Red Gums is found on the southern end of the Tafe campus frontage. The Bpaac, Tafe and Airport provide opportunities to enhance streetscape plantings and create a public landscape precinct making a positive contribution to the town. The absence of power lines on the National Hire frontage provides an opportunity for larger trees.

The unbalanced nature of the road reserve and adjacent sites means a two sided approach may be desirable, with larger trees where opportunities exist and more compact complementary canopy trees under power lines.

Bridge Street to Railway line

Eucalyptus nicholli have been planted into the road shoulder through this section, though uneven survival means a spotty look with many vacant planting sites.

Possible species

Kilfeera Road to Bridge Street: *E. maculata*, *Angophora* spp, *Ulmus parvifolia*

Bridge Street to Railway line: *E. maculata* to replace *E. nicholli* in road shoulders.

Nunn Street

No. 10 Nunn Street – Maginness Street

These streets are considered together as the main route of arrival and departure to the north. (Refer also to comments Gateway No 3)

Nunn Street

- Maintain existing theme of large deciduous trees. Use improved Dutch Elms (as per Showgrounds frontage) to improve pest and disease resistance.

Maginness Street

- Existing planting comprises largely *C. citriodora* (Lemon Scented Gum) and *Grevillea Robusta* (Silky Oak). The Silky Oak are beginning to show signs of senescence. It is recommended that as they are progressively removed in coming years that they be replaced with *C. citriodora*.
- A number of vacant planting sites along the street would allow additional Lemon Scented Gums to be planted at any time. It is recommended that these opportunities be followed up as a priority.

Proposed Species

Ulmus x hollandica

Crymbia cotiadora

Coster Street

No 11 Coster Street from Samaria Road to Bridge Street

The essential requirement for Coster Street is a consistent landscape treatment, as far as practicable, between Samaria Road and Bridge Street. Remnant Elms near Bridge Street highlight the necessity for large scale trees to reflect the scale of the road reserve. Since so few remain, Japanese Zelkova (*Zelkova serrata*), and Elm look-alike, might be adopted as the new species and planted throughout, starting with existing planting gaps.

Opportunities exist on the Hospital frontage for plantings complementary to that proposed elsewhere along Coster Street. Avoiding power lines will require creative use of available space. In some areas along the east side planting into the road shoulder will be appropriate given extreme carriageway widths.

Arundel Street – North

No 12 Arundel Street north of Bridge Street

This street has an almost iconic status in terms of streetscape imagery in Benalla. The Catholic Church and school precinct with stately Victorian era brick buildings, and the avenue of established Elms, set in a wide road reserve with access to the Gardens at points along the east side of the street, together form a high quality urban space.

Power lines are present on the east side, where a number of vacant planting sites are found. The west side also has vacant sites.

Even north of the rail line remnant Elms are found, although the line is a sufficient barrier to allow for starting a new planting theme, more consistent with themes proposed for Precinct B (*Certainly for Boger Street native themes are more appropriate*).

It is recommended that the Elm theme be continued in Arundel Street North, possibly using Dutch Elms as on the Showgrounds frontage. There is scope for additional planting into the carriageway shoulder along and south of the Bowls Club frontage.

Proposed species

Maintain existing. Replace with resistant Elms as required.

No 13 Arundel Street south of Bridge Street

This Street has a double sided character where public uses (Drill Hall, Church buildings, Showgrounds, open space areas), dominate on the eastern side, with most of the western side occupied by housing with some small scale commercial frontages at the north end.

South of Garden Street

Power lines east side. Mature Planes west side.

Garden Street to Market Street

Mature Planes west side again give the street a very different character each side. Melaleucas under power lines fail to achieve appropriate scale to balance Planes opposite.

Market Street to Maud Street

It would be desirable to maintain and strengthen the native plantings in open space areas abutting the road reserve between Market and Maud Streets, whilst maintaining deciduous themes in Arundel Street.

Maud Street to Bridge Street

Existing mature Elms in this section of Arundel Street should be retained, with any necessary replacement plantings to match trees used on the Showgrounds frontage in Bridge Street.

Arundel Street is wide enough to accommodate planting of large deciduous trees into the road shoulder to avoid/minimise power line impacts. Where open space areas abut this can be complemented by similar planting on open space frontages (some has previously been done, e.g Pinoaks). It is recommended that Melaleucas on the open space frontage be removed to highlight the Pinoaks. Alternatively if planting under power lines proves necessary adopt a deciduous tree with broad but shallow canopy, e.g Chinese Elm (*Ulmus parvifolia*).

Arundel Street may have a change of species from Elms to Planes at Maud Street. This is not necessarily an issue, as the strength of the existing mature trees warrants continuation and extension of existing themes. Abutting open space offers scope to complement street trees with appropriate Reserve planting as discussed.

Proposed species

Maintain existing, north end, and where mature Elms present. Replace Elms with resistant Elms as required. Ditto for areas of mature Planes. Consider other additional plantings as described in notes immediately above.

No 14 Faithful Street

South of the Rail Line

Power lines are present both sides in Faithfull Street. The road reserve is wide, although much of it is sealed. The street is a significant rail crossing and point of entry to the town from the west. The scale and importance of the street warrants the use of large canopy street trees.

South of the rail line plantings are mixed, including Ash and a variety of small natives. In this section the open drains are deep with a significant cross fall on the road shoulders. The presence of a school campus on the east side offers an opportunity to complement street tree plantings by doubling up the same species along the school frontage. New plantings into the road shoulder should be considered where practicable.

North of the Rail Line

Hakeas, Prunus, Melaleuca and Fraxinus spp are found moving north of the railway, with Ash becoming more dominant heading north. Power lines occur on both sides of the street through this section also.

The wide flat road reserve would appear to offer ample opportunity for a range of options including:

- Planting of a suitable wide but shallow tree (e.g Chinese Elm) under the power lines, with a larger shade tree (E.g Pinoaks) in a newly constructed central median, or into central road cut outs suitably protected.
- Planting into road shoulders away from power lines to allow use of larger trees, with or without a central median or line of cut outs.
- Redefining the extent of sealed areas to reduce the visual expanse of road surface
- Use of adjacent spaces for complementary planting where appropriate.

Proposed species

Native or exotic subject to further resident consultation:

Exotic options:

Ulmus parvifolia

Zelkova serrata

Quercus palustris

Native options:

• *E. sideroxylon* 'Rosea'

• *Angophora costata*

• *E. maculata*

No 14 Faithful Street

South of the Rail Line

Power lines are present both sides in Faithfull Street. The road reserve is wide, although much of it is sealed. The street is a significant rail crossing and point of entry to the town from the west. The scale and importance of the street warrants the use of large canopy street trees.

South of the rail line plantings are mixed, including Ash and a variety of small

MacKellar Street

Other streets linking or bordering precincts where uniform treatments should be considered:

No 15 MacKellar Street

Mackellar Street is important as an east west arterial linking Witt and Nunn Streets. This street is very two sided, with the south side largely residential, and much of the north side occupied by Railway land and the railway line system through Benalla.

There are many opportunities for infill planting.

A consistent double sided avenue planting is appropriate for the full length of Mackellar Street, with the following qualifications:

- west of Salisbury Street a deciduous theme is appropriate, consistent with the recommendations for Precinct K
- east of Salisbury Street, the species could change to reflect the general change of character, perhaps using an evergreen tree. Equally the deciduous theme could be extended to Witt Street.
- opportunities for additional local native plantings on railway land should be explored as part of any renewal of street tree planting in Mackellar Street.

Proposed species

- *Zelkova serrata*
- *Ulmus x hollandica*
- *Local natives on miscellaneous roadside spaces.*

Salisbury Street

No 16 Salisbury Street

Salisbury Street is an important north south connector in the eastern part of the town, mirroring the function of Clarke Street in the western part of town. The street also forms an interface between the original grid subdivision to the west, and subsequent less organised development of generally smaller lots to the west. Views are available to the hills at the south end, and to the railway easement at the north end

Bridge Street and Coster Street represent physical and psychological interruptions to the continuity of Salisbury Street. Thus, different treatments can be contemplated north and south of Bridge Street, and across Coster Street, if desired.

Coster Street to Bridge Street

Existing trees comprise mainly Ash (west side) and Melaleucas (east side under power lines). A canopy of substantial deciduous trees would be appropriate, although this may require planting into the road shoulder to avoid power lines (TBC). The character of the street is changing, with constructed kerb and channel on the east side, and open drains on the west side through this section. There is an opportunity to plant the wide vacant verge at the intersection of Salisbury and Barkly Streets. A number of unplanted sites are available for infill planting both sides

Bridge Street to Church Street

Both sides of Salisbury Street through this section have open storm water drains. Benalla Secondary College dominates the east side of Salisbury Street here. Opportunities exist for more planting of canopy trees on the school frontage and particularly in the informal student car park at the south end.

A mix of *Prunus* spp and *Melaleuca* spp occurs on the east side under the power lines. The school edge is dominated by large Eucalypts.

A consistent avenue of compact deciduous trees (perhaps one of the ornamental pears) should be achievable here, with the Native trees on the school frontage providing another layer of interest in the background.

Church Street to Gay Street

The visual character of the street changes past Mackellar Street, where both road shoulders are unsealed, with a light coloured gravel surface. Planting on the west side is dominated by Norfolk Island Hibiscus (*Lagunaria patersonii*) through this section. The east side planting comprises mainly *Lagunaria* and *Melaleuca* species.

North of Coster Street, it is recommended that deciduous trees be used as an eastern edge to the primary grid subdivision precincts where in turn deciduous trees are expected to dominate. North of Bridge Street conditions may require a smaller deciduous tree (e.g. *Pyrus* 'Chanticleer'). South of Coster Street, a native tree may be preferred in tune with the habitat areas adjacent to Precinct F. This would need to be confirmed by community consultation, as a deciduous theme in keeping with the approach proposed for the remainder of Salisbury Street may also be preferred by residents in this section of the street.

Proposed species

- *Ulmus parvifolia*
- *Pyrus* 'Chanticleer'

No 17 Cowan Street

Cowan Street, potentially linking the remnant trees along the Midland Highway with the remnant vegetation along the Broken River corridor, would seem to be a suitable candidate for use of native street tree planting with a bias towards Eucalypts. The east end of Cowan Street, in particular boasts some fine stands of River Red Gum.

Powerlines are present on the south side. There is no particularly dominant planting theme, with much development along Cowan Street very recent. Many planting sites are vacant, and there is evidence of ad hoc planting by residents.

Proposed species

It is recommended, subject to consultation, that a *Eucalyptus* or *Corymbia* species be adopted as the future street tree theme for Cowan Street. The presence of powerlines on the south side may warrant use of different but complementary species each side. Suitable candidate trees would include *E. sideroxylon* 'Rosea' (no power lines) and *E. eximia* (power lines).

Clarke Street

No 18 Clarke Street

Clarke Street is a significant north south link in the western part of the town.

Cowan Street to Bridge Street

- A strong theme of *Melaleuca styphellioides* both sides has been established south of Bridge Street (see *Photo*), with a short section dominated by Desert Ash (with some Brush Box) towards Bridge Street. Although the trees under the power lines on the east side have had to be topped for power line management, the general impact of the consistent avenue planting is quite effective.
- The Council Reserve on the east side north of Waller Street offers much potential to improve the streetscape edge in this section. Existing planting on the street verge and also in the Council Reserve is very mixed and in poor condition.
- Power lines are found on the east side of Clarke Street through this section.
- Occasional vacant planting sites are present.

Bridge Street to rail line.

- Power lines are generally on the east side, although in some sections power lines are absent both sides. Power lines seem particularly low, perhaps not much more than 4.50 metres at the point of maximum line sag.
- Although *Melias* and *Melaleucas* comprise the most common street trees in this section, some large native trees are found on private frontages (e.g Vicroads and School sites).
- Bridge Street forms a substantial break in the street making it feasible to vary planting approaches on Clarke north and south of Bridge Street.
- At the north end views are afforded to native trees along the rail corridor

As trees becoming senescent are removed the question of a replacement species will arise. Despite the strong *Melaleuca* theme at the south end of Clarke Street, which will continue to be the dominant theme for many years, it is appropriate to consider an alternative species for longer term renewal. Given the character of the abutting precincts, any new species could conceivably be native or exotic. There are some strong existing native themes at the north end, and along the abutting school frontage.

Proposed species

It is recommended that following community consultation, existing and future vacant sites be planted with a tree from the following candidate species:

Native option: Apple Box (*Angophora costata*); Bloodwood (*Corymbia eximia*)

Exotic option: Chinese Elm (*Ulmus parvifolia*)

Thomas Street

No 19 Thomas Street

Thomas Street is a significant north/south link in the western part of Benalla township, and forms a western edge to Precinct E, representing Benalla's earliest grid subdivision.

South of Amber Avenue

Thomas Street is largely undeveloped south of Amber Avenue at this stage. Two significant Elms on the west side are worthy of retention. A new street tree theme (Manchurian Pears) has commenced with recent plantings adjacent to a new subdivision at Amber and Thomas (south west corner).

Amber Avenue to Waller Street

Mix of species including Melaleucas and Ash. Road reserve widens north of Waller Street.

Waller Street to Egmont Street

The road reserve widens north of Waller Street. The scale of planting (Melias, Melaleucas) does not match the wide road reserve which calls for more substantial shade trees.

Egmont Street to Bridge Street

Mature remnant Elms are a feature of this section of Thomas Street, although many gaps are present.

Proposed species

It is recommended that south of Waller Street, Manchurian Pear be adopted as the preferred tree. North of Waller Street, extend Elm plantings (using Dutch Elms) from Waller Street to Bridge Street, planting in road shoulders to avoid power lines if necessary.

No 20 Waller Street

Remnant River Red Gums abutting the trees along the Midland Highway, form a gateway to the western end of Waller Street. The eastern end connects into the Broken River corridor. These two facts suggest the use of native trees in Waller Street to form a habitat corridor for birds at least, with the potential to connect Reef Hills Park and the Broken River corridor.

The open space edge east of Clarke Street provides a great opportunity to build on the mature River Red Gum remnants along the southern edge of the Council Reserve. The absence of Kerb and channel on this edge is arguably a good thing to be retained in the interest of maintaining the large trees and avoiding unnecessary damage to services.

Power lines are found on the north side west of Clarke Street and the south side east of Clarke Street. This poses a challenge for the development of a consistent planting theme. Existing trees comprise many Desert Ash, as well as Melaleucas and Brush Box, although there are many vacant planting sites. Vacant land on the south side opposite the Council Reserve may also present an opportunity to augment future street tree planting. The Waterworks Trust facility offers a similar opportunity.

Proposed species

*It is recommended that at the east end, in the unmade road reserve, existing exotic plantings be progressively replaced with local native habitat corridor themes. For Waller Street proper, as indicated above, a native planting theme is preferred. If powerlines require a 'double sided' approach, suitable candidate trees would include Red flowering Black Ironbark (*E. sideroxylon* 'Rosa'), and Bloodwood (*E. eximia*).*

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix F

SCOPE OF TREE MAINTENANCE PROGRAM

Version 1.01

Scope of Tree Maintenance Program

This maintenance plan covers the urban areas of the following towns within the Benalla Rural City:

- Baddaginnie
- Benalla
- Devenish
- Goorambat
- Swanpool
- Tatong
- Thoona.

Individual township boundaries relating to the maintenance plan are defined by; 60-80 speed restrictions signs, residential streets or footpaths. Vegetation outside of the defined areas are managed by others with the exception of matters relating to road management issues.

It is accepted that this maintenance plan also relates only to those trees that have been planted specifically for beautification, enhancement, commemoration purposes or other specified and accepted purposes by Council.

This acceptance excludes naturally self generated vegetation in areas of urban development which does not nor likely to, impact or roadway or footway infrastructure or users safety. In these cases, no specific maintenance of such trees is planned under this maintenance plan.

Defined areas within each township may be changed as development and expansion of the urban area occurs.

Planning Scheme Provisions

Of particular relevant importance within Benalla Township are the Heritage Overlay provisions of the Benalla Planning Scheme.

The places as listed within the Schedule to the Heritage Overlay being part of Section 43.01 Heritage Overlay of the Benalla Planning Scheme to which this plan is affected are as listed in Table S1 below.

PS Ref	Map	Heritage Place	Tree Controls Apply?
HO12		Benalla Gardens, Bridge Street, Benalla	Yes
HO15		Faithful Massacre Site and Memorial, Lakeview Close, Benalla	Yes
HO25		Arundel Street Urban Conservation Area Benalla	Yes
HO26		Benalla Central Urban Conservation Area Benalla	Yes
HO66		Kelly Tree, Stringybark Creek, Tatong Tolmie Road, Tolmie	Yes
HO67		Kelly Site, Kelly's Creek, Tatong Tolmie Road, Tolmie	Yes

Table S1

Reference should be made to the Benalla Planning Scheme Section 43.01 Heritage Overlay for full listings of sites to which the Heritage Overlays apply.

The purpose of the Heritage Overlay includes statements:

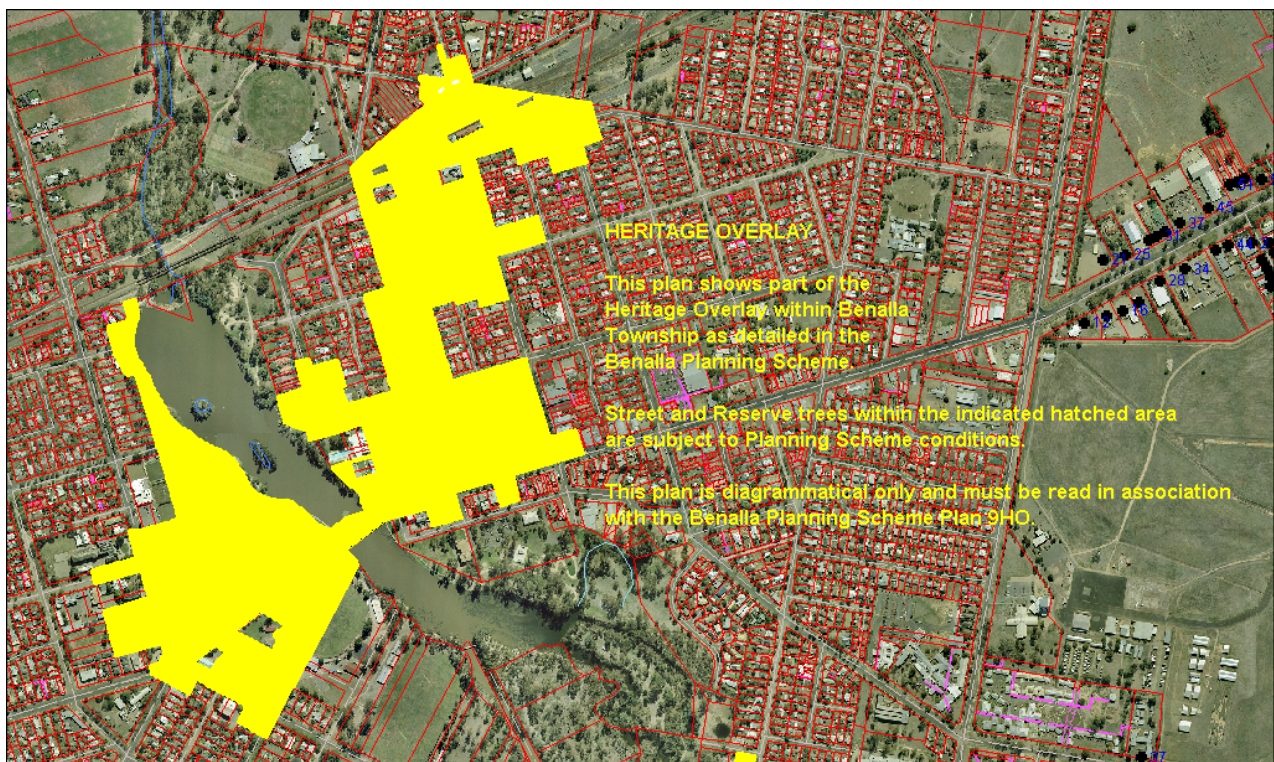
- To conserve and enhance heritage places of natural or cultural significance.
- To conserve and enhance those elements which contribute to the significance of heritage places.

Therefore a Planning permit is required for works including:

- Remove, destroy or lop a tree if the schedule to this overlay identifies the heritage places one where tree controls apply.

The above clause does not apply:

- To any action which is necessary to keep the whole or any part of a tree clear of an electric line provided the action is carried out in accordance with a code of practice prepared under Section 86 of the Electrical Safety Act 1998.
- If the tree presents an immediate risk of personnel injury or damage to property.



Map of part Heritage Overlay affected area inclusive of street and reserve trees under management of this plan.

Limitations of Responsibility

Benalla

As shown on plan below, the area of responsibility for tree maintenance within the Benalla Township is limited to those areas of Broken River islands, such as Casey Island and Jaycee Island, within close proximity to the established walking paths.

It is recognised that a duty of care exists to identify, inspect and maintain those trees within 20 metres of the walking path likely to have an impact of the walking paths and pedestrians. Open park areas including playgrounds, picnic areas and where seating facilities are provided are to be included within areas for the tree maintenance program.

Rural Plantations

Plantations on roadsides within the municipality will be included within the tree maintenance program only where such plantations have been approved for planting by Council Officers and where Council accepts maintenance responsibility.

All plantations approved and planted shall be mapped and appropriately recorded so as to provide ready access to plantation information. A list of plantations identified is shown below.

Offset Plantations

'Offset plantings' occur as a result of Planning Permit Approval conditions for the removal of existing trees through roadwork, building or other works undertaken by Council where Planning Approval is required to remove vegetation.

Plantations for 'Offset' planting will be included within the tree maintenance program. All plantations approved and planted shall be mapped and appropriately recorded so as to provide ready access to plantation information. A list of offset plantations identified is shown below.

Plantations and Offset Register Listing

Tree removal address	Date of planting	Off set planting address	Permit number
Price Road Mokoan Biolink Channel Removal of five Eucalyptus species Airport OLS	0.6 hectares 8-9 October 2016	Biolinks channel between Sydney Road & Morey	P0034/16 DA63454

Appendix G

PLANTING DETAILS

PLANTING A TREE

This planting guide is prepared as an indication of the method adopted by the Benalla Rural City Council for planting of street and park trees within the municipality.

Subject to all other implications and guidelines of the Tree Maintenance Plan being adopted the following planting process is to be observed.

Quality Stock

Selecting the right tree for the right place is as equally important as planting a tree of high quality as per AS2303:2015 Tree Stock for Landscape Use.

The quality of planting stock used in streets and reserves is a major determinant of success in establishment of the plantings. The first step in avoiding future hazards trees is to plant high quality stock.

Quality plantings can only be achieved by careful inspection and selection of stock from nurseries of known capabilities.

The best insurance to ensure quality stock is to:

- deal with a reputable nursery
- establish careful specifications
- look for stock with overall health and vigour
- reserve the right to reject stock upon delivery.

When purchasing planting stock, consider stock that has the correct form to develop into an ideal tree rather than looking like a fully-formed tree in miniature. This will minimise pruning in the landscape.

Factors to be noted:

- no bifurcations or included bark on any street tree stock
- radial branch attachment around the trunk
- strong branch attachment (>45deg angles to trunk)
- trees appropriately limbed-up to above 1.8m
- twiggy, over-formed canopies should be avoided
- single straight trunk.

High quality stock has:

- enough sound roots to support healthy growth
- a trunk free of mechanical wounds and wounds from incorrect pruning
- strong form with well-spaced, firmly attached branches.

Stock purchased in containers should have:

- containers large enough for the canopy size
- containers designed to reduce root spirals
- container profile broad and shallow:

15 - 20 litre containers	plants 1.5 to 2.0 m - maximum height
40 - 50 litre containers	plants 2.1 to 3.0 m - maximum height
75 – 100 litre containers	plants 3.1 to 4.0 m - maximum height.

When purchasing the right quality stock the following recommendations are advised:

- *choose a complete growing system that will give you the appropriate root quality, free from root deformation*
- *make certain that the root mass is appropriate to support the canopy*
- *check the canopy development to assure easy tree management after planting without immediate pruning*
- *check the trunk taper to assure that the plant will require staking only for protection.*

Any of these problems alone or in combination with the others will greatly reduce the tree's chances for a long, attractive, healthy and productive life.

Plantings

A hole twice the width of the root ball of the tree to be planted and no deeper than the height of the root ball is dug. The soil removed from the hole is used as backfill around the root ball. No soil amendments are recommended when planting a tree – therefore, no compost, peat moss, or shredded pine bark should be added to the backfill.

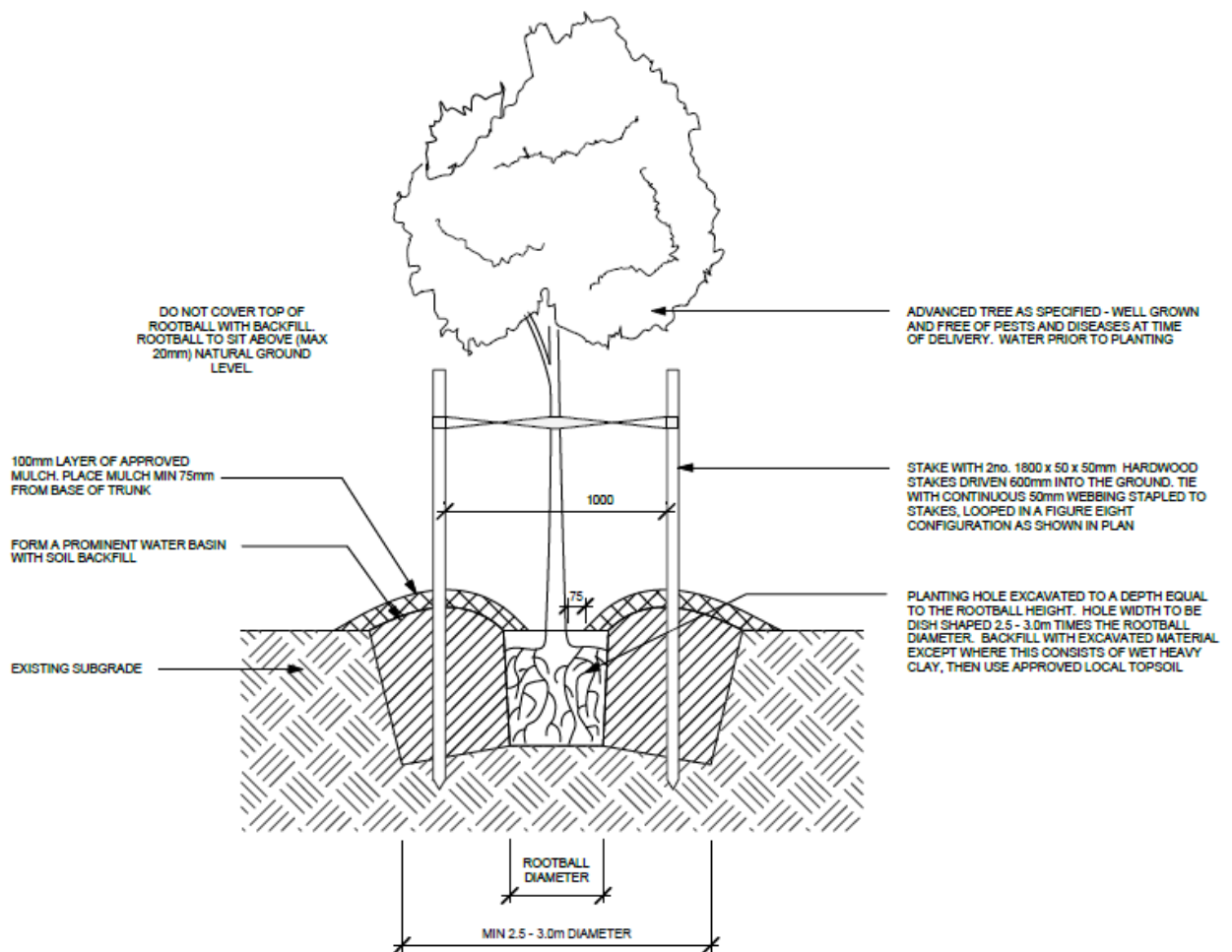
After planting, build a 100mm tall berm around the edge of the hole. Fill the berm with mulch (i.e. shredded bark, compost). The mulch and berm make it easier to water the tree and reduce weed competition.

For most trees, staking is not recommended. However, if the tree is not sturdy enough, use two stakes, one on each side of the tree and give the trunk support for the first year only.

Immediately after planting, water the tree in by filling the bermed basin with water. This will settle the existing soil around the root ball. Water weekly as required, as the tree cannot be allowed to dry out, until the tree is established (approximately two year period). The goal is to wean the tree slowly off of supplementary irrigation and get the root system large enough for the tree to thrive on natural rainfall.

It is advisable to plant during the cooler months of the year, as a general rule, planting in dry districts is best undertaken at the commencement of the season when the first rains have fallen. In wetter districts or frost prone locations, it is advisable to plant during early spring. Open rooted plants should be planted during their dormant season, preferably in June or July.

Note: these are guidelines only. Use your index finger to check the soil moisture under the mulch. If the soil is cool to the touch, do not water. If it is dry, then water. More plants are killed by over-watering than by under-watering.



PRUNING YOUNG TREES

The main reasons for pruning ornamental and shade trees include safety, health and aesthetics.

At Planting

Little, if any, pruning should be needed at the time of planting. This is particularly true if high quality stock has been purchased for planting.

Any pruning at the planting stage should be limited to corrective pruning.

Corrective & Formative Pruning

- Remove diseased, dead or broken branches.
- Eliminate double stems (Codominant stems).
- Remove branches with included bark in their attachments.
- Remove broken or damaged, crossing or rubbing branches.
- Do not crown prune nor remove lower branches.

Wound Dressing

Wound dressing is neither necessary nor recommended for most pruning cuts. Dressings do not necessarily hasten wound closure or reduce wood decay. However, dressings can reduce sap flow from wounds and can help prevent the transmission of certain diseases.

If oaks or elms are wounded or pruned and it is prudent to dress the wound. A latex material should be applied not an oil or asphalt based paint to prevent introduction of pathogens in the specific cases of Dutch Elm Disease or Oak Wilt.

References:

Urban Tree Risk Management - *A Community Guide to Program Design and Implementation*.

USDA Forest Service

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix H

STREET LISTING

SUCCESSION PLANTING

Streets identified for succession planting – Priority high.

Street	Reason for removal Problem	Solution	Removal	Replant species
Church Mair	Trees are in senescence High risk, high traffic volume.	Succession planting in blocks.	All species identified by Arborist report.	<i>Ulmus sapporo</i> Autumn gold (Elm disease resistant) <i>Ulmus parvifolia</i> Chinese elm <i>Zelkova</i> Wireless
Hair Crescent	Powerline clearance, not compliant Gum tree. High Risk.	All street re-plant.	Gum tree to be compliant All trees.	<i>Lagerstoemia</i> sp
Nunn	Trees are in senescence High risk, high traffic volume.	Succession planting in blocks.	All species identified by Arborist report.	<i>Ulmus sapporo</i> Autumn gold (Elm disease resistant) <i>Ulmus parvifolia</i> Chinese elm
Botanical Gardens	Isolated trees High risk, traffic volume.	As required	All species identified by Arborist report.	Replace with existing species
Wedge	Trees are in senescence High	Succession planting in blocks.	All species identified by Arborist report.	<i>Ulmus sapporo</i> Autumn gold <i>Ulmus parvifolia</i> Chinese elm <i>Zelkova</i> Wireless
Deas	Trees are in senescence High Probability of failure.	Succession planting in blocks.	All species identified by Arborist report.	<i>Ulmus sapporo</i> Autumn gold <i>Ulmus parvifolia</i> Chinese elm

Priority medium risk - individual trees or street.

Street	Problem	Solution	Removal	Replant species
Amos Avenue	Mature trees under powerline.	Remove and replant street.	All	Under powerline species
Byrne Street	Opportunity to remove trees causing damage to infrastructure.	Remove and replant street.	Three trees to be removed on one block.	<i>Zelkova</i>
Schulz Street	Unsuitable tree in growing medium. Poor nursery stock.	Remove the remaining under the criteria of resident owner consensus.	Seven gums and two Manchurian pear.	Suitable planting for 1.7m Treat as power line species. <i>Lagerstroemia</i> sp. Crepe myrtle

Priority low risk - individual trees or streets.

Street	Problem	Solution	Removal	Replant species
Ackerly Avenue	Arterial road, dead, missing unsightly.	Remove and replant street.	All	
Bridge Street East & West	Arterial road, dead, missing unsightly.	Part planting or all streetscape.		May be better/cheaper/approved to plant with existing, fill gaps with non- preferred species.
Melrose Street	Unsightly after powerline prune. Aged ash tree under powerlines.	Replant all street.	Total of 40 trees both sides.	Remove powerline side only?
Meadows Avenue	Unsightly after powerline prune Aged ash tree under powerlines.	As above.		
Smythe Street	Tree replacement beatification.	Centre medium planting and nature strip.		

Consideration should be given to:

- probability of failure – risk to Council
- compliancy to powerline
- major arterial roads rather minor roads, greater exposure to visitors
- tree species - road and medium strip size
- VicRoads criteria – tree size and road requirements
- street scape all or part - replanting with non-preferred species e.g. Queensland box gum nuts slip hazard and Golden ash root disturbance(west bridge street)
- Council operating budgets.

Appendix I

LETTER TREE PLANTING



A new street tree has been planted.

WE'VE PLANTED A STREET TREE IN FRONT OF YOUR HOME.

The tree was selected as the most appropriate based on local conditions, climate, the existing streetscape and resilience to pests and disease. We plant trees in winter and for the first two summers, we water them regularly.

To help look after your tree, we ask that you:

- provide additional water over summer (not grey water)
- contact us if your tree appears stressed or damaged
- don't prune, restake or re-tie the tree
- don't place grass clippings or mulch at the base of the tree
- avoid using brush cutters or whipper-snippers near the base of the tree



Contact the Council's Customer Service Centre on
03 5761 2600 if you have any questions.



Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix J

LETTER TREE MAINTENANCE

NOTICE TO OWNER/OCCUPIER STREET TREE MAINTENANCE

Location -

Property Number – Identified with painted white dot Date -

The Council wishes to notify you that it will be carrying out maintenance works on the street tree at the above location. This work is to be carried out as part of the Council's responsibility to manage its infrastructure for the health and amenity of the tree, and the safety of all users of the street.

If you have any concerns regarding this program, please contact Parks Coordinator Dean Steegstra on 5760 2673.

The nature strip requires attention in one or more of the areas listed below.

Works to be carried out are:

- ☐ Removal of roadside plantings
- ☐ Understory pruning on nature strip
- ☐ Removal of deadwood / diseased growth
- ☐ Co dominant Reduction
- ☐ Formative Pruning
- ☐ Pruning to address power line safety
- ☒ Tree Removal
- ☐ Root Barrier
- ☐ Ground Injection
- ☐ Foliar Spraying

Works are programmed to commence - Within 14 days

Benalla Rural City Council
Tree Asset and Maintenance Management Plan

Appendix K

REFERENCES AND LEGISLATIVE REQUIREMENTS

REFERENCES

Benalla Planning Scheme	Benalla Rural City Heritage Overlay Provision
Benalla Rural City Council	Road Management Plan November 2017
Benalla Rural City Council	Roadside Vegetation Management Plan 2014
Benalla Street Trees - Policies and Strategies February 2007	Des Gunn Landscape Design
Delatite Shire – Elm Tree Register (Benalla)	S Gibbons - Australian Tree Management 1999
Tree Assessment Reports for Delatite Shire - Devenish Township	S Gibbons - Australian Tree Management 2000
Australian Standard AS4373	2007 <i>Pruning of Amenity Trees</i>
Australian Standard AS4970	2009 <i>Protection of Trees on Development Sites</i>
Australian Standard AS2303	2015 <i>Tree Stock for Landscape Use</i>
Australian Standard AS/NZS 2890.1	2004 <i>Parking Facilities</i>
Victorian Road Management Act Code of Practice for Worksite Safety	Traffic Management Act 2004
Guidelines to the Electricity Safety	(Electric Line Clearance) Regulations 2015
Code of practice of electrical safety for work on or near high voltage electrical apparatus	(The Blue Book) Victoria 2005
Community Tree Risk Management	Program Planning and Design
Urban Tree Risk Management - USDA Forest Service	A Community Guide to Program Design and Implementation
The Body Language of Trees	Claus Mattheck & Helge Breloer Department of the Environment Transport and the Regions: London
Urban Forest Strategy. Making A Great City Greener 2012-2032	http://www.melbourne.vic.gov.au/SiteCollectionDocuments/urban-forest-strategy.pdf
Managing and Assessing Aging Urban Trees	Martin Norris – Open Space Planner, Wellington Shire Council Tree net proceedings of the 6 th National Street Tree Symposium 2005

LEGISLATIVE REQUIREMENTS

The Local Government Act (1989)

Road Management Act 2004

The purpose of this Act is to establish a coordinated management system for public roads that will promote safe and efficient state and local public road networks and the responsible use of road reserves.

The Victorian Planning & Environment Act (1987)

Prior to removing, destroying or lopping native vegetation a permit must be issued by the Responsible Authority. Some exemptions apply.

Electrical Safety Act 1998

Part 8 of the Electricity Safety Act 1998 (specifically section 89) requires that there shall at all times be regulations in place specifying a compulsory Code of Practice for Tree Clearing.

Victorian Electricity Safety (Electric Line Clearance) Regulations 2015

These regulations prescribed as the “Code” for the purpose of the Electricity Safety Act requires persons responsible for the maintenance of electrical lines to ensure that the risk of vegetation interfering with electrical lines is minimised.

As part of the Act council is required to submit an annual Electric Line Clearance Management Plan to the Chief Electrical Inspectors Office (CEIO). This plan identifies locations of vegetation, including species type, location of High voltage (HV), Low voltage (LV) electrical lines, pruning requirements and area of responsibility.

Aboriginal Heritage Act 2006

The main purposes of this Act are—

- *To provide for the protection of Aboriginal cultural heritage and Aboriginal intangible heritage in Victoria; and*
- *To empower traditional owners as protectors of their cultural heritage on behalf of Aboriginal people and all other peoples; and*
- *To strengthen the ongoing right to maintain the distinctive spiritual, cultural, material and economic relationship of traditional owners with the land and waters and other resources with which they have a connection under traditional laws and customs; and*
- *To promote respect for Aboriginal cultural heritage, contributing to its protection as part of the common heritage of all peoples and to the sustainable development and management of land and of the environment.*

Agricultural and Veterinary Chemicals (Control of Use) Act 1992

Regulations relate to matters such as spray drift, agricultural chemical user's permit, registration requirements for chemicals and chemical control areas. A Code of Good Practice for Farm Chemical Spray Application has been produced by Agricultural Victoria.

Country Fire Authority Act 1958

Tree management activities are to abide by this Act and activities are not to be undertaken during weather conditions that could ignite a fire.

Flora and Fauna Act 1988

Public authorities must have regard to flora and fauna conservation and management objectives which are:

- *To guarantee that Victoria's flora and fauna can survive, flourish and retain their potential for evolutionary development in the wild; and*
- *To conserve Victoria's flora and fauna communities.*

Heritage Act 1995

The main purposes of this Act are:

- *To provide for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects; and*
- *To establish a Heritage Council; and*
- *To establish a Victorian Heritage Register.*

Other future References and / or Federal / State Legislated Acts

Whilst this Appendix lists a number of References and Legislative Acts, the maintenance and management of trees within the municipality is not limited to those references and Act as listed.

Other reference material may be used if deemed appropriate and will be included in the appendix following review of the plan as adopted.

Any relevant Federal and/or State Legislation as enacted is to be considered as being included within this Appendix and will be included following review of the plan as adopted.

Benalla Rural City Council

Tree Asset and Maintenance Management Plan

Appendix L

MANAGEMENT MAINTENANCE PLAN IMPROVEMENTS



Benalla Rural City Council
January 2019
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