



Tree Management Plan

2020-2024



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APPROVAL

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1. Executive Summary

This Tree Management Plan has been developed in order to:

- Provide a clearly defined and consistent approach to the way Central Goldfields Shire Council manages tree assets and issues from an operational perspective; and
- Assist Central Goldfields Shire Council staff in determining priorities for tree programs and works.
- Support and complement Council's focus on a greening approach and achieving urban cooling.

The Tree Management Plan will provide principles and reference policies for how Central Goldfields Shire Council addresses:

- Tree management;
- Risk identification and mitigation;
- Tree inspections and assessments;
- Tree selection and planting;
- Tree removal;
- Tree protection;
- Infrastructure protection;
- Electric line clearance;
- Tree maintenance.

2. Background

Central Goldfields Shire Council has a very wide diversity of trees in terms of species, age, size and density.

In mid-2016 an alliance was formed between the municipalities of Buloke, Gannawarra, Loddon, Central Goldfields, Mt Alexander and Macedon Ranges. A Victorian state government grant to conduct a street tree inventory within these municipalities was approved. The preliminary trial data capture and upload to council systems was conducted in late 2016.

From January to March 2017, 31,852 assets were recorded across the 6 local government areas. Information was collected by a 6 person team of qualified arborists from Homewood Consulting recording information relating to tree species, dimensions, condition, recommended works and risk.

Within Central Goldfields there were a total of 6,088 trees assessed and recorded. Data collected included tree species, life expectancy, trees dead or in poor health, trees that have been worked on, trees that have not been worked on, tree removals, high moderate and low risk trees.

Through this process a significant amount of data on Council's trees has been collected and recorded. Maintaining records requires significant resources in order to protect and enhance the overall treescape within the shire.

Trees are an essential part of the urban and rural fabric, providing economic, social and ecological benefits. They are highly important and should be managed similarly to other Council assets including the drainage network, roads and footpaths. Trees are however living assets and need to be managed as such.

3. Tree Management Issues

Trees, like any other asset, need to be managed to maximise their benefits and minimise adverse effects. As biological assets, trees do not behave evenly over their life and are prone to many factors outside the control of the tree owner e.g. drought, weather, site conditions and disease. Their life cycle can vary enormously, is not easy to predict and requires ongoing assessment.

Trees take many years to develop to maturity and provide maximum benefits to the community and the local ecology. They cannot be quickly replaced. The retention and protection of larger trees in particular is important, especially in an expanding and ever changing urban environment as they provide the maximum community benefit. The Central Goldfields Shire Council is committed to the efficient and effective management of trees within the municipality, however given the number of trees, it is not possible to completely address all risks associated with trees at any one time. As such, the inspection and maintenance of the tree network is conducted on a risk basis. Trees are assessed based on their location, any identifiable defects, and the probability of the defects resulting in limb or trunk failure and the likely consequences if failure occurs. Proactive and reactive works will always need to be managed carefully when the level of resources is limited.

An inventory of trees which includes their location, species, condition, size and surrounding environment provides the basis for making informed decisions. It is also essential to be able to interrogate the data and keep the information up-to-date. To this end it is imperative that any works conducted are recorded in Council's asset management system, "Asset Master". Council continues these efforts to map and assess the large number of trees within the municipality. Currency and completeness of inventory data are also essential for good long term strategic assessment, direction and plan development.

4. Risk Management

A primary reason for tree asset management is to manage the risks to the community. The Risk Management approach is based on a three-step process:

- Inspect the asset;
- Identify any defects which may affect the structural integrity of the tree;
- Implement the appropriate action within the required Response Time (see Appendix B).

The risk associated with trees is a combination of the location and condition of the tree and the public or asset use in the vicinity of the tree. Management of the risk needs to take these factors into account.

The Australian Standard, (ISO 31000:2018 Risk Management), provides a sound methodology for managing risk and is used for these assessments.

Risk assessment is the overriding factor in determining priority for works and allocating resources. Inspections and risk assessments require standardised and documented procedures. These are undertaken by suitably qualified and experienced Arborists.

4.1.1 Proactive Inspections

These inspections are scheduled in accordance with Appendix A. A qualified Arborist will inspect the tree for any defects which may impact the structural integrity of the tree. Any mitigation works logged on the tree will be determined in accordance with the location of the tree, the type of defect identified and the likelihood that the defect will result in trunk or branch failure and the likely consequences if failure occurs. Mitigation works will be referred for further action in accordance with Appendix B.

4.1.2 Reactive Inspections

These inspections come about after Council is notified of:

- An incident related to an insurance claim;
- A report of an issue by the community;
- Identification of an issue by a Council employee.

Depending on the Risk Assessment, within 2 – 30 working days of Council's Arborist team becoming aware of an issue, an appropriately qualified Arborist will carry out an inspection and confirm any defects or issues and then refer these for further action in accordance with the time frames stipulated in Appendix B below. The reactive inspection timeframe will be determined by the location of the tree and the nature of the defect or incident.

4.1.3 Integrated Asset Management System

Council utilises an Integrated Asset Management System (IAMS) to store all relevant information regarding Council's tree assets, as well as the results of any inspections, and works carried out. This system enables the appropriate scheduling of maintenance and programmed works, as well as providing data for the internal auditing of processes.

4.1.4 Customer Tracking and Document Management Systems

Council's asset management system includes a customer request module that records and associates customer requests with inspections and outcomes. The system enables the appropriate delegation of maintenance and programming requests to the Operations team.

5. Plan Improvement and Monitoring

The Tree Management Plan is an evolving document to be reviewed and refined on an ongoing basis. A complete review of the plan and compliance is to be conducted every four years within 12 months of any council election.

5.1.1 Performance Measures

The following objectives must be met to measure the performance of the plan:

- Inspection frequencies meet the prescribed schedule; and
- Responses to defect requests within the prescribed timeframe.

A report is to be presented to the General Manager Infrastructure Assets and Planning on an annual basis regarding compliance with the plan.

5.1.2 Internal Auditing of Processes

The processes that are to be audited internally annually are as follows:

- Recording of complaints/requests in the appropriate database in the manner required;
- Complaint/request is inspected and/or assessed in relation to risk/safety & specified maintenance intervention levels;
- Proactive inspections are carried out as scheduled;
- Relevant inspection reporting and recording mechanisms are in place;
- Reported defects are being properly recorded in the system;
- Where required, appropriate rectification responses are determined and Works Orders issued;

- Record of maintenance activities is made in the database against the asset, including actual date of completion;
- Record that maintenance works have been delivered as intended (i.e. an appropriate Council Officer has signed off on the satisfactory completion of the work);
- Management system in place to record and respond to customer enquiries;
- Asset handover/update process is being managed as required.

The outcome of the internal audit is to be reported to Council's Audit Committee, while responsibility for overseeing the audit process belongs to the General Manager Infrastructure Assets and Planning.

6. Access to Document

This document is available to the public at the following locations:

- Online at www.CentralGoldfields.vic.gov.au; and
- Council Depot, 72 Burns Street, Maryborough Vic 3465.

7. Definitions

- "TMP" – Tree Management Plan
- "Street trees" – trees planted by Council, or for which Council has assumed responsibility, located in the road reserve.
- "Parkland trees" – trees planted by Council, or for which Council has assumed responsibility, on land located in public parks and reserves.
- "Private trees" – trees located on private property.
- "Roadside trees" – trees located on the road reserve which have not been planted by Council or trees for which Council has not assumed responsibility – typically rural roads.
- "Arborist (qualified)" – a person with a Certificate 3 in Arboriculture as a minimum (or equivalent qualification), and a minimum of three years of relevant industry experience. Consulting and inspecting (Certificate 5 or diploma or higher)
- "Structural defect" – A weak point in or on a tree causing its structural deterioration diminishing its stability in full or part.
- "Diameter at Breast Height (DBH)" – a measurement taken at 1.4. metres above the ground, that being a convenient height at which to measure a tree's diameter. For trees on slopes, multi-trunked trees, leaning trees or where branches interfere with measuring at 1.4 metres, refer to the International Society of Arboriculture's "Simplified Guide to Measuring DBH".
- "Immediate risk" – a qualified Arborist has determined that the structural integrity of the tree is in such poor condition that it creates a risk of failure in the near future and may cause injury to the public or damage to property.

8. Applicability

This Tree Management Plan applies to the following:

- Street trees planted by Council or for which Council has assumed responsibility
- Parkland trees planted by Council or for which Council has assumed responsibility located in Council managed parks and reserves
- Trees located in other Council owned for managed properties.

Excluded from the TMP are the following:

- Private trees located on private land
- Roadside trees pursuant to Section 107 of the Road Management Act 2004.

Whilst (except when put on notice of a defect or danger) Council has no Statutory or Common Law duty to inspect roadside trees, inspections and mitigation works are conducted when resources allow for such works or in the event of a reactive inspection.

9. Tree Inspections

Council will endeavour to assess all applicable trees within the municipality to determine their potential for public risk with inspection frequencies determined by that potential. Trees in “high risk” areas will warrant more frequent inspections.

Appendix A details the location of these “high risk” areas, and provides a hierarchy for further tree inspections.

To enable Council to effectively monitor and maintain its tree assets Council must maintain an up-to-date inventory of applicable trees within the Asset Management System (AMS).

Each tree in the AMS is uniquely identified and assigned a category in the hierarchy relevant to its location. Further information relating to the AMS can be found in the Asset Management Strategy and the relevant Asset Management Plans.

Information contained within this inventory is defined within Council’s data standards.

10. Tree Selection and Planting

Street and parkland tree planting should be done in a programmed and sustainable manner. This approach is sound both environmentally and economically. Due to lead times associated with the production of tree stock it is essential to forward plan to determine what tree stock will be needed to be assured of obtaining the right species, acceptable quality of stock and availability at the right time.

A “sustained amenity” approach which results in a diversity of tree ages and sizes across the municipality, should be followed to achieve long term stability of the tree population and landscape character.

The right mix of species and age diversity are vital components of a sustainable tree population. A generally accepted rule for achieving this is for a single generation to not make up any more than ten percent of the whole tree population. The age of trees should also be spread evenly across the towns within the shire with variation between young and old trees to lessen the impact of, or need, to remove large areas of trees.

Priority for tree planting by the Central Goldfields Shire Council should be given to:

- Major road entry spins to all communities;
- Areas with a lack of trees;
- Areas where residents or community groups have requested trees;
- High profile and high use areas;
- Areas where there are high percentages of old aged trees, low species diversity and/or trees in poor condition; and
- Sites where trees have been removed.

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

- Preferred “Landscape Character”;
- Adopted masterplans, strategies and development plans;
- The significance of previous history of tree planting;
- Drought tolerance/low water usage;
- Longevity;
- Growth habit, size and structural integrity;
- Tolerance to harsh urban environments;
- Soil type and structure;
- Root growth characteristics and tolerances;
- Pruning requirements;
- Amount and type of debris shed;
- Proximity and form of surrounding existing and future below ground and above ground infrastructure;
- Solar radiation/orientation;

- Pest and disease susceptibility;
- Existing and future use of the surrounding area;
- Habitat value;
- Suitability to a public environment ie allergens or pathogens
- Weed potential;
- Existing and likely future adjacent land use; and
- Future planning for expected climate change.

Trees shall be planted in the nature strip of each property using the following guidelines:

- 4 metres from a fire hydrant
- 1 metre from underground services
- 1 metre either side of a pedestrian gate
- 3 metres from a vehicular driveway
- 5 metres from an intersection
- 3 metres from power poles
- 7 metres from a street light
- Existing Avenues/replacement plantings – same alignment
- Nature strips (standard) – 1.5m from back of kerb where practicable
- Nature strips (wide) – Centre
- 15 metres from Centre of intersection
- Streets with setback drainage and wide road shoulders – minimum 3m from sealed road edge.
- 1 Tree every 15 Meters or 1 Per Frontage

Note: location of overhead and underground services may result in variations to the above guidelines.

Central Goldfields Shire Council's Annual Tree Planting program will be undertaken from May to September. Single or replacement planting may occur outside this timeframe if adequate watering can be provided.

Where advanced stock is to be planted, trees shall comply with the National Specification and be a minimum of 1.5 metres high.

Planting of all trees shall be in accordance with International Society of Arboriculture standards for tree planting.

New trees planted in prominent locations where there is potential for future root damage to hard landscape features or services shall have root control barrier installed at the time of planting.

New tree planting should reinforce the existing character of municipal areas. Cross referencing Council documents such as Open Space Strategies and Masterplans must be part of the selection process.

Council must be consulted and give approval for any significant tree planting within streets and parklands it controls, or will take control of as Council will ultimately become responsible for their maintenance and any problems that may arise.

Refer AS 2303-2018 Tree Stock for Landscape Use.

11. Tree Removal

Trees can take many years to develop fully and once removed cannot be quickly replaced. Urban trees are living organisms with a finite lifespan; they often grow in non-ideal environments; they can be subject to numerous forms of physical damage; and can become a potential risk. Removal of trees will therefore be a regular and necessary process of Council's tree management program. Tree removal decisions must be undertaken systematically and with due consideration of all factors.

Prior to tree removal in most instances an attempt will be made to inform adjacent residents of the removal works. Notification will generally be in the form of an informational letter, either physical or electronic, to the residence. Council officers will also 'door knock' prior to works starting where possible.

Exceptions to the notification process are when there is an immediate risk to the public or property. In these cases, tree removal will occur as a priority to ensure public safety. Additionally, trees assessed by Council's qualified Arborists as being an immediate risk to public safety are exempt from the requirement for a planning permit.

All State and local planning requirements controlling the removal of trees must be adhered to.

Where possible Council tree removals should involve some form of consultation with directly affected parties unless there is an immediate risk to public safety. In these instances, all assessment documentation and photographs must be recorded in Councils Records system.

Council's Operations department will liaise with stakeholders in relation to any queries regarding the removal of the tree. When consultation is possible and practicable, written notification of Council's intention to remove the tree will be sent to the residence directly adjacent to the tree. Any trees removed should be replaced when possible in order to maintain the sustainability of the overall tree asset.

Any decision to remove a tree will be based on the best long-term outcome for the community as a whole.

In the event of any unauthorised removal, damage, application of herbicide or any impact leading to the death or irreversible damage to public trees any costs incurred by Council for the removal, reinstatement and replanting including aftercare will be recouped from the responsible persons or corporate body.

Any costs incurred by Council for removal and reinstatement resulting from unauthorised landscaping, planting or other unauthorised works in a Council road reserve will be recouped from the responsible persons or corporate body.

12. Tree Protection

All work on and around trees must comply with:

- AS 4373-2007 Pruning of amenity trees; and
- AS 4970-2009 Protection of trees on development sites.

Trees and infrastructure are essential items in a modern environment. It is simply not possible to avoid all potential conflicts. They can be minimised however through innovative design and correct management of maintenance activities.

Trees may be subject to damage, above and below ground, from civil works. Where any civil works are proposed in the vicinity of trees, an assessment and works plan is essential to ensure tree damage is avoided or minimized. Large tree specimens that may have local or cultural significance may require protection measures that are not general practice for most street and park trees. Protection measures for these trees may include fencing, mulching, greater clearances from adjoining works and structural assistance measures such as propping or cable bracing to protect from damage or disturbance.

Over the trafficable lane of a road reserve, Council has a legal obligation to provide adequate tree clearance for traffic but not for telecommunication cables. Clearance around telecommunications cables is the responsibility of the telecommunications provider.

Works within the vicinity of a Council tree or trees that will become the responsibility of Council must comply with AS 4970-2009.

13. Infrastructure Protection

Infrastructure may be subject to damage/ interference from adjacent trees. When any tree plantings are proposed in the vicinity of above and below ground infrastructure, careful consideration of species selection, soil type, planting technique, available root space and the appropriateness of root control measures are needed to ensure damage is avoided or minimised. In the vicinity will generally mean within the expected mature “drip-line” of a tree or at least a radius from the centre of the trunk equal to 12 times the mature trunk diameter, whichever is the greater.

Tree roots are not invasive by nature but are known to seek water in damaged drainage pipes. The responsibility for unblocking and repair of the private house drainage pipes remains with the property owner.

Tree roots can, on occasions cause damage to vehicle crossovers, fences and other private infrastructure. Upon being informed of such damage, Council shall inspect the tree and, if appropriate, undertake remediation works which may include arranging for a root prune and installation of a root barrier.

Refer Australian Standard AS 28702011 Residential Slabs and Footings.

14. Electric Line Clearance

Energy Safe Victoria (ESV) is the responsible authority for ensuring electrical safety of the power distribution system in Victoria. The Central Goldfields Shire Council has a statutory obligation under the Electricity Safety Act (1998) for maintaining clearance of public trees from overhead power lines within the “Declared Area”.

The “Declared Area” is clearly defined and mapped and is entirely within the urban area of Maryborough only.

Refer to the “Central Goldfields Shire Council Electric Line Clearance Management Plan” for details on how this is managed and “Declared Area” maps.

Maintaining overhead electric line clearances for all trees outside of the ‘Declared Area’ is the responsibility of the local power distribution company which is Powercor. In some cases private land owners are responsible for the clearance of trees from powerlines.

15. Tree Maintenance

Tree maintenance should be based on a risk priority basis. High priority maintenance works must take precedence over reactionary or lower priority requests. Due to the specialised nature of tree works only experienced Council staff and or approved contractors are to undertake maintenance works on Council trees.

Formative tree works on young and developing trees has the potential to significantly reduce the future risks and costs associated with mature trees. Formative works on young street trees should aim to develop a straight single trunked tree that is clear of side branching up to approximately 2.5 meters from the base.

Refer Australian Standard AS 4373-2007.

16. Existing Tree Controls and Regulations

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

It is the responsibility of all persons to ensure they do not do anything that is in contravention of any existing laws and regulations. The following information is provided to assist you in determining what laws and regulations may apply to your situation.

There is State Government legislation which controls what may or may not be done with vegetation e.g. the Planning and Environment Act 1987. More information on this Act and the Department of Environment, Land, Water and Planning's Native Vegetation Management Framework (NVMF) can be found at www.dwelp.vic.gov.au/planning.

Central Goldfields Shire Council has a variety of planning scheme overlays and local laws that specify what may or may not be undertaken with certain types of vegetation. Some of the overlays include:

- Vegetation Protection Overlay1 (VPO1) - native vegetation only
- Vegetation Protection Overlay 2 (VPO2) - native and exotic vegetation
- Heritage Overlay (HO)
- Significant Landscape Overlay (SLO)
- Environmental Significance Overlay (ESO)
- Neighbourhood Character Overlay (NCO)
- Erosion Management Overlay (EMO)
- Salinity Management Overlay (SMO)
- Public Acquisition Overlay (PAO).

More details can be found on these at www.centralgoldfields.vic.gov.au.

17. Exceptional Circumstances

Trees are a living organism and the environment in which they live can change quickly. Council will make every endeavour to meet all aspects of its Tree Management Plan. However, in the event of natural disasters and other events including, but not limited to, storms, fires, floods, droughts, a lack of Council staff or suitably qualified Contractors and the like, Council reserves the right to suspend compliance with its Tree Management Plan.

General Manager Infrastructure Assets and Planning, will inform the Chief Executive Officer and Council's Property and Risk department in writing of any suspensions or reactivations of the Tree Management Plan.

18. Appendix A

Inspection Frequencies

Hierarchy Category	Proactive Inspections - Defect	Reactive Inspections
T1-High use areas <ul style="list-style-type: none"> • Childcare/Kindergartens • Caravan Parks • Regional Parks See Appendix D	Every 12 months	Within 2 working days of notification
T2-Parks and High risk areas including <ul style="list-style-type: none"> • Picnic tables • Playgrounds • BBQ's • Swimming pools • Main School entrances • School crossings • Bus stops • Shopping precincts- major retail areas. 	Every 24 months	Within 5 working days of notification
T3-General Parks, Reserves and Street trees	Every 5 years	Within 10 working days of notification
T4-Low use public areas with dispersed recreation walkways, easements, drainage reserves, vacant open areas, riparian zones and peripheral areas with limited use and access	Reactive inspections only	Within 30 working days of notification

19. Appendix B

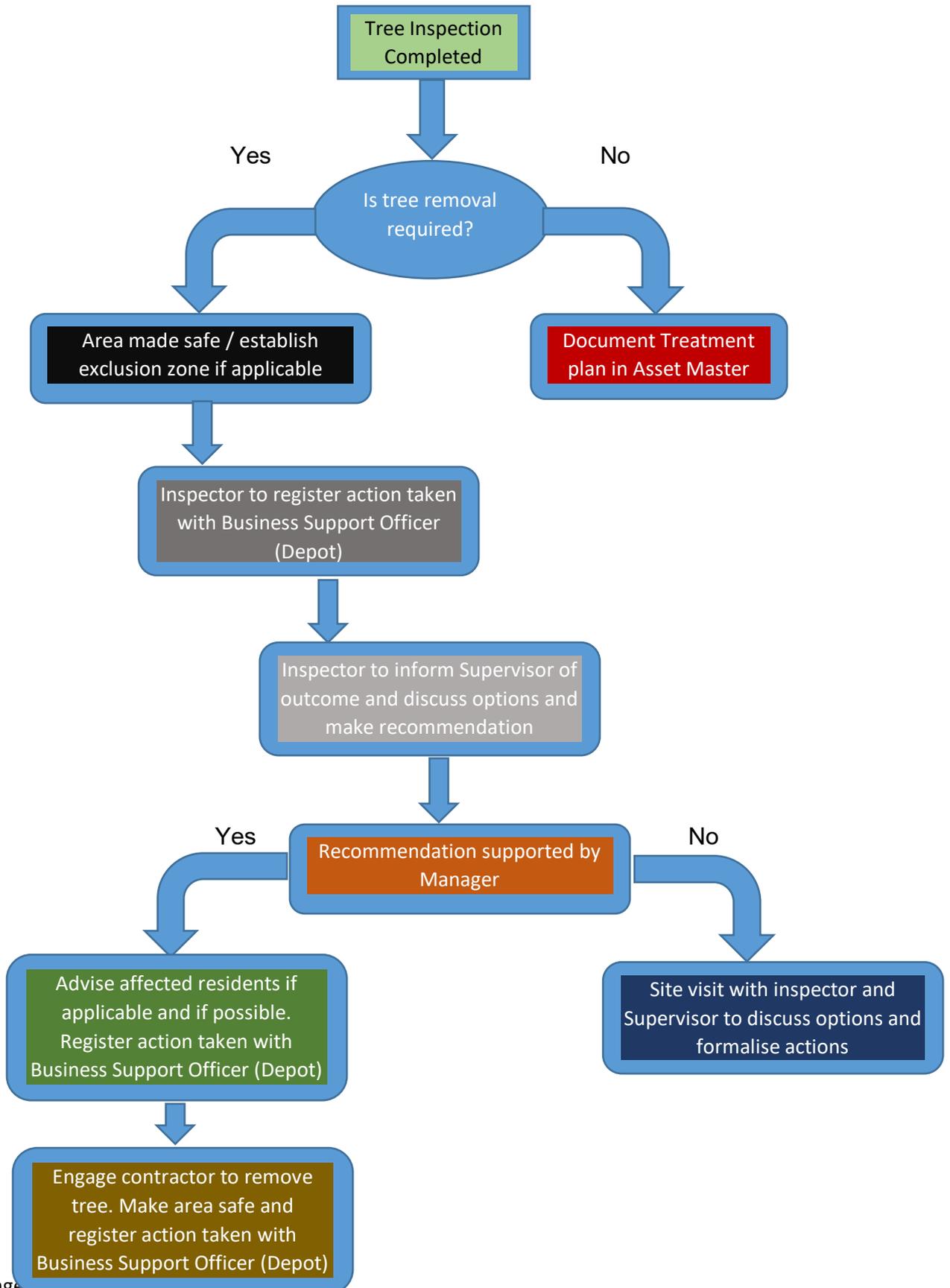
Response Times

Tree Defect				
Description	Response Code by Hierarchy			
	T1	T2	T3	T4
Poor structure	B	B	C	E
Dead tree	B	C	E	F
Broken and hanging branches	A	A	B	C
Deadwood	B	C	E	F
Fallen tree	A	A	C	F
Fallen branch	A	B	C	F
Root plate lift/sink	A	A	B	B
Contacting powerlines	B	B	B	A
Tree root infrastructure damage	D	D	D	D

Response Time Code	Notification Source*	Notification To Arborist Unit	Rectification Response Time*
A	Asset Inspection Officer	Immediate Notification – phone call + AMS	2 working days
	Customer/Other Officer	As soon as possible – phone call + AMS	
B	Asset Inspection Officer	Same day	5 working day
	Customer/Other Officer	Pathway/AMS workflow	
C	Asset Inspection Officer	Same day	1 month
	Customer/Other Officer	Pathway/AMS workflow	
D	Asset Inspection Officer	Same day	3 months
	Customer/Other Officer	Pathway/AMS workflow	
E	Asset Inspection Officer	Same day	6 months
	Customer/Other Officer	Pathway/AMS workflow	
F	Asset Inspection Officer	Same day	12 months
	Customer/Other Officer	Pathway/AMS workflow	

Appendix C

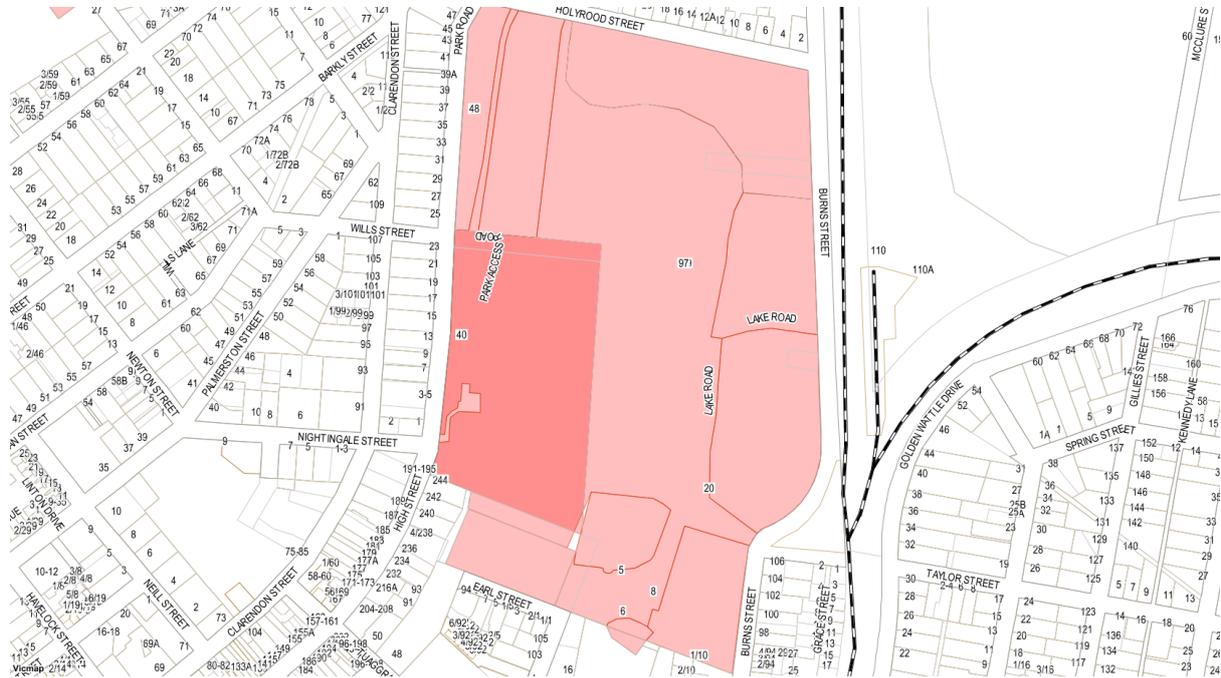
Emergency Tree Removal Procedure



20. Appendix D

T1 Inspection Zones

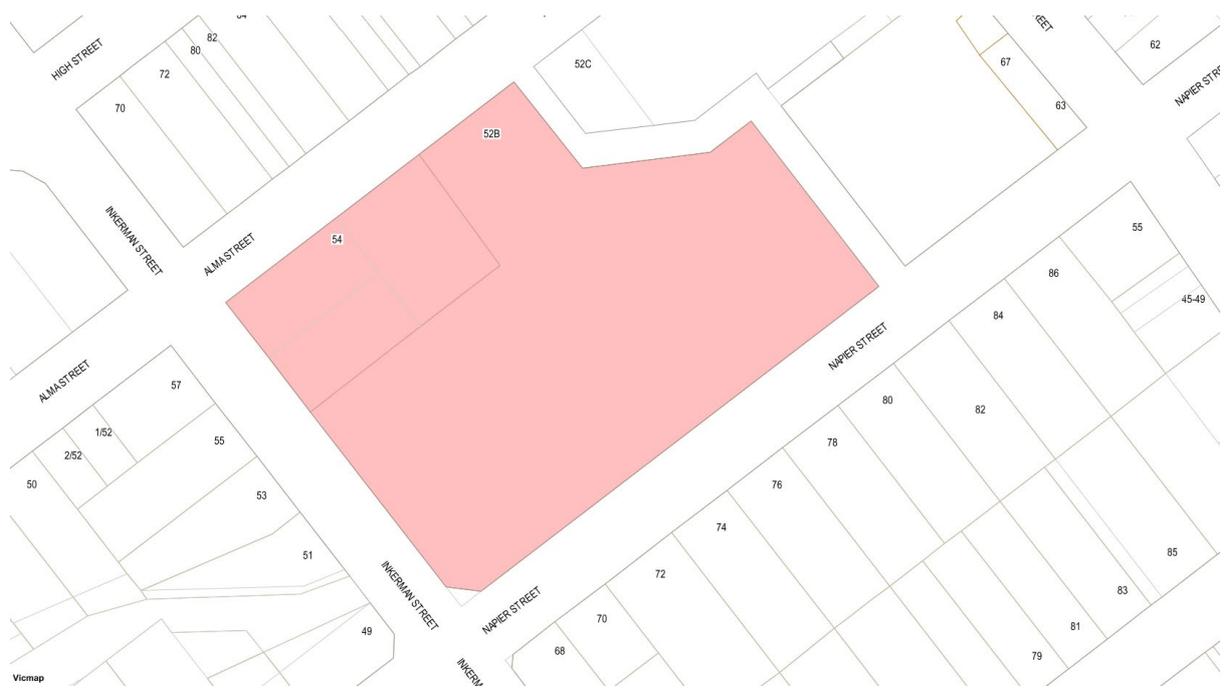
Princes Park Precinct Including Maryborough Caravan Park, T.L. Stone Kindergarten



Dunolly Kindergarten



Phillips Gardens



A.G. Leech Kindergarten

