



Urban Tree & Nature Strip Management Plan

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Table of Contents

1.	Introduction	4
2.	Objective	4
3.	Areas of Responsibility	5
4.	Tree Management	5
5.	Risk Identification and Mitigation	5
6.	Tree Selection and Planting	5
6.1	Tree Planting Consultation Process	6
7.	Tree Removal	6
7.1	Trees Threatening to Cause Significant Property Damage	7
7.2	Trees Causing Significant Interference to Services or Mains	8
7.2.1	Power Lines	8
7.2.2	Water Mains	8
7.2.3	Footpaths & Kerb and Channel	8
7.3	Tree Causing Sight Distance Problems for Pedestrians or Motorist	8
7.4	Trees that have been Damaged due to Storms or High Winds	9
7.5	Tree is Diseased, Dying or Dead	9
7.6	Self-Sown or Sucker Growth	9
7.7	Trees Not Growing True to Type	9
7.8	Horizontal or Vertical Clearances	9
7.9	Emergency Tree Removals	9
7.10	Tree Removal Practices	10
7.11	Removal of Waste Material & Stumps	10
7.12	Tree Removal Consultation Process	10
8.	Significant Tree Protection	10
9.	Infrastructure Protection	11
9.1	Council Response	11
9.1.1	Footpaths, Road, Road Underground Drainage and Kerb and Channel	11
9.1.2	Vehicle Crossovers and Fences	12
9.1.3	Household Stormwater and Sewerage Services	12
9.1.4	Dwellings and Other Damage	13
10.	Electric Line Clearance	13
11.	Tree Maintenance	13
11.1	Pruning	13
11.2	Property Lines	14

11.3	Shading	14
11.4	Root Barrier Installation & Root Pruning	15
12.	Environmental and Community Imperatives	15
13.	Pest and Disease Control	15
14.	Urban Nature Strip Management Guidelines	15
14.1	What is a Nature Strip?.....	15
14.2	Maintenance of Nature Strip.....	16
14.3	Acceptable Condition of Nature Strips	16
14.4	Nature Strip Council Responsibility.....	16
14.5	Failure to Maintain a Nature Strip.....	16
14.6	Repair of Nature Strip Damage	16
14.7	Items Not Permitted on the Nature Strip.....	17
14.8	Alternative Nature Strip Treatment	17
14.8.1	Grassed Nature Strip.....	17
14.8.2	Permeable Surface Treatment using fine gravel	17
APPENDIX A - Tree Selection Process.....		18
APPENDIX B - Preferred Tree Species.....		20
APPENDIX C - Tree Planting Program.....		28
APPENDIX D - Risk Assessment Template.....		30
APPENDIX E - Guidelines for Work near Council Trees		31
APPENDIX F - Tree Removal Checklist		32

1. Introduction

Northern Grampians Shire Council is committed to the efficient and effective management of trees and nature strips on Council owned or managed land including street and open space trees. Good planning and appropriate maintenance is vital for safe and manageable street and roadside trees that will provide aesthetic, material, environmental and ecological benefits to the community.

It is clear that urban trees, including street and open space trees, offer major benefits to the community. It is Council's role to manage these trees in a safe, effective and efficient manner to provide maximum aesthetic, physical and psychological benefits to the community.

2. Objective

This management plan supports the Urban Tree & Nature Strip Management Policy by providing guidance on how Northern Grampians Shire Council (NGSC) will undertake urban tree management and maintenance.

Street trees help to create softness and beauty in otherwise harsh streetscapes. As such they add significantly to the enjoyment of our urban environment and to the value of properties. By applying appropriate levels of resources and best practice management, the Northern Grampian Shire Council will develop streetscapes of attractive, healthy and safe trees for the benefit of the entire community, both now and in the future.

The objective of this plan is to:

- Acknowledge the important role trees play in our lives and environment,
- Provide a framework for the protection and enhancement of street, roadside and open space,
- Provide a clearly defined and consistent approach to the way the NGSC manages the tree issues,
- Assist the NGSC in determining priorities for the tree programs and works.

The Urban Tree Management Plan will provide principles and procedures for following issues,

- Tree Management
- Risk Identification and Mitigation
- Tree Selection and Planting
- Tree Removal
- Significant Tree Protection
- Infrastructure Protection
- Electric Line Clearance
- Tree Maintenance
- Environmental and Community Imperatives
- Pest and Disease Control

3. Areas of Responsibility

This management plan covers the urban areas within the following towns,

- Stawell
- St Arnaud
- Great Western
- Halls Gap
- Glenorchy
- Marnoo
- Navarre
- Stuart Mill

4. Tree Management

Urban trees provide significant benefits to the community however they can conflict with other essential infrastructure. Trees are just one component within a network of assets Council has management responsibility for. Integrating their management aspects is essential to maximise benefits and minimise conflicts.

Trees have a finite life, their genetic potential and the external factors that impact on them determine how well they perform. In the case of street trees, the growing conditions are usually significantly altered from those encountered in their natural growing environment.

Street trees also grow amongst people and property and as such pose management challenges as a result of community expectations for amenity, functionality and safety. The impact of the artificial growing environment and the community requirements of street trees is that street trees require intensive management.

5. Risk Identification and Mitigation

Urban trees have an inherent risk which must be managed effectively. The risk associated with the trees is a combination of the condition of the tree and the use or “target” in the vicinity of the tree. Management of the risk needs to take both of these factors into account.

A formal risk assessment of all situations where trees exist needs to be undertaken to accurately identify the risks, determine appropriate actions and assign priorities. Risk assessments/potential should be the overriding factor in determining priority for works and allocating resources. Works by external contractors and land owners can have a significant impact on the risk potential of Council trees. Control over or awareness of works in the vicinity of Council trees is vital to ensure risk minimisation.

Council will only do a risk assessment, when a potential risk is reported to the Council by community or other external parties. (Appendix D).

6. Tree Selection and Planting

The selection of appropriate trees for urban street planting will be critical for successful establishment and well managed streetscape. Council’s Parks & Garden team will ensure that the species selected for planting are rigorously assessed to ensure the establishment of the right tree for the right location. The trees selected for the planting will be from the preferred species list (Appendix B).

A detailed tree selection process is attached to this document. (Appendix A)

Tree species selection will consider the following requirements,

- The surrounding composition of the vegetation and any local environmental or aesthetic considerations.
- The purpose of the road and any impact the trees might have on the road or any other assets.
- The impact of the tree planting on statutory and regulatory requirements with regard to service utilities and other built infrastructure present above or below ground.
- The possible impacts on the safety of the public.
- Utilising the best available arboriculture standards, including ease of maintenance, longevity, growth rate and appearance.
- Any other matters which might be pertinent to the site or local conditions including soil and weather conditions.

Residents are not to plant trees in the road verge or in community open space. Unauthorised planting of inappropriate tree or plant species may be removed from the road verge and or community open space.

6.1 Tree Planting Consultation Process

Wherever tree planting is proposed adjoining landowners should be notified and consulted about the species selected for the particular street. The following consultation process will be implemented in relation to street tree planting process:

- The nearest ten properties will be notified by a letter drop. If there are multiple units at the one property, they will all be notified.
- All councillors will be notified by email.
- All persons notified will be allowed seven days to respond.
- When objections have been received, the Parks & Garden Team Leader should contact the objector/s and attempt to allay the concerns or provide details about the specie selection process. If the objection remains and the selected specie remains the Parks and Gardens Team Leader's outcome, the matter will be referred to Council

7. Tree Removal

Removal of trees from nature strips and open space is potentially the greatest cause of conflict in the management of urban trees. Understandably, customers become very attached to a tree that has been living and growing near their home no matter what age the tree is. Prudent tree management requires the assumption that every tree, no matter how insignificant it may appear, has some value to someone.

It sometimes becomes necessary to remove trees, either because of a problem with the tree itself, or to facilitate development or installation of infrastructure. Experience has shown that the concern associated with the removal of trees can be minimised through proper consultation with customers and demonstration of respect for the importance of trees by Council and the communication of these views to the community.

There is a need for the Parks and Gardens Team to efficiently process requests of this nature and to take appropriate action that addresses needs and protects Council interests in risk management.

The reason for these requests can be numerous. The most common requests are:-

- Tree threatening to cause significant property damage. (Either to private or Council owned property).
- Tree causing significant interference to services or mains ie. Power lines, water, sewer, kerb or pavement.
- Tree causing sight distance problems for pedestrians and/or motorists. Can be at intersections, driveways or footpaths etc.
- Tree being storm damaged or having failed in part due to shedding limbs.
- Tree is dying, diseased or dead.

There are also occasions when the Parks and Gardens Team need to take action on trees (without customer requests) for the same reasons above, as well as the following.

- Self-sown or sucker growth;
- Trees that have not grown true to type;
- Horizontal and vertical clearances.
- Trees that have reached the end of their useful life.

This would enable the removal of inappropriate trees before requests are made or any damage has occurred to person or property.

The Parks and Gardens Team have authority to remove trees under the following circumstances,

7.1 Trees Threatening to Cause Significant Property Damage

A tree in this situation would usually be large enough to overhang or reach private property if the tree failed in part or completely. The assessment of the tree however should allow for history of the individual tree and species in general determining the likelihood of failure. There would need to be evidence of the tree failing or shedding limbs previously or the same species demonstrating a history of limb failure.

Instability in the ground would necessitate removal. This could be caused by poor root development or interruption by excavation to the root system or ground movement due to extreme seasonal conditions and is usually determined by witnessing ground or tree movement or recent changes to ground surface.

Removal of a tree that threatens property should only be considered if pruning is not viable.

- if sufficient pruning to remove risk is carried out but destroys the aesthetic amenity.
- If pruning creates an unacceptable balance of crown.
- If pruning creates ongoing maintenance problems with managing secondary growth.
- If pruning exposes the remaining crown to risk of failure.

7.2 Trees Causing Significant Interference to Services or Mains

7.2.1 Power Lines

Council has a responsibility to maintain clearance of trees from power lines in the St Arnaud and Stawell declared urban areas under Electricity Safety Act 1998 and in accordance with the Electricity Safety (Electric Line Clearance) Regulations 2010 (see also Northern Grampians Shire Council Line Clearance Management Plan).

In most instances where conflict occurs between trees and overhead power lines, regular formative pruning allows acceptable co-existence. In some instances however, particularly if an unsuitable species has more recently been planted under power lines, severe pruning of the tree would leave it with little or no crown and unacceptable visually. The cost/benefit ration in relation to performing the work annually would be unacceptable and would have little benefit by way of shade and aesthetics.

Some species do not recover well from pruning at non target zones and the resultant secondary growth can often lead to failure. Trees falling into this category should be removed.

7.2.2 Water Mains

Interruption to water mains and services is less of a problem as the tree roots have to physically alter the alignment of a pipe to rupture it. Most problems caused in this way can be solved by root pruning. Extensive root disturbance sufficient to fracture a water main, however, may require more extensive root pruning. The tree should be removed only if the tree is destabilized by such pruning or the reoccurrence of the pruning outweigh the cost/benefit of the trees existence. This situation would be infrequent.

Root invasion of private sewer lines is more common and does not always require or warrant the removal of the tree. Usually, once a tree roots have invaded a sewer line they become a regular maintenance problem as little root growth has to be made to re-invade the pipes after clearing. One solution can be to chemically treat the sewer with a root inhibitor using commercial contractors. This process is quite expensive but gives a guarantee of 3 years of no root invasion.

Removal of trees for sewer blocks should only occur when the tree is isolated from like species ie. not part of a planned, uniform planting and will have little effect on visual amenity.

7.2.3 Footpaths & Kerb and Channel

Root disturbance to footpath or kerb and channel should generally be treated as follows. In most cases root pruning when concrete repairs are made are sufficient to alleviate this. There are circumstances, however, where such pruning will either destabilize or threaten the health of the tree and in these circumstances the tree should be removed. This would usually relate to trees in narrow nature strips where pruning would have to be done too close to the trunk of tree.

7.3 Tree Causing Sight Distance Problems for Pedestrians or Motorist

These can usually be rectified by pruning. However, in some cases where an intersection treatment has altered traffic flow or a tree has grown to a dimension where pruning cannot meet sight distance requirements, the tree may be removed.

Other instances may relate to

- Sucker growth or self-sown; and
- Trees less than 10 years old

If sight distances cannot be maintained by pruning then the trees would need to be removed.

7.4 Trees that have been damaged due to Storms or High Winds

These can usually be repaired by pruning. In some cases the damage may be significant enough to threaten remaining crown structure by increased exposure to elements or by actually fracturing other limbs. A complete assessment would need to be made of the trees' crown in order to determine the trees' viability. Also, limb shedding of trees in conditions other than storms is an indication of a change in health or circumstances of the trees environment that necessitated the limb shedding. The same treatment should apply to storm damaged trees and in extreme cases the trees removal may be warranted.

As in all tree assessments these types of assessments can be critical as such a dramatic change to a trees structure is usually an indication of other forces impacting on the tree. If the tree is not removed its condition should be monitored as the loss of structure could lead to further deterioration of the tree.

7.5 Tree is Diseased, Dying or Dead

A tree that is diseased beyond effective control and is clearly dying should be removed to minimise spread of diseases if in proximity to other host plants. Obviously dying or dead trees should be removed as soon as possible, preferably before they become a risk to person or property and in particular in urban constructed street environments where a loss of amenity exists.

7.6 Self-Sown or Sucker Growth

These may need to be removed as usually problems exist with poor siting. ie. inhibiting sight distances, obstructing drains, shoulders, clearances etc. or damage to kerbing, footpath, or services if in urban environment.

7.7 Trees Not Growing True to Type

These can fall into the category of 7.1 or they can be species under cultivation that for a variety of reasons are clearly not going to be viable. Examples of this are trees that due to poor root development (mainly due to inadequate propagation practices) are unstable or causing root related damage that is not manageable by pruning. Another common fault is the development of severe bifurcation's (twin, competing stems at an acute angle to one another) due to genetically poor stock that because of these deformities are going to have a high risk of limb failure which would leave remaining crown structure of tree unviable.

7.8 Horizontal or Vertical Clearances

Council has a responsibility to provide adequate horizontal and vertical clearances of trees from roadways in a variety of road classification situations. These clearances can often be met by pruning, but in some cases pruning is neither practical nor adequate and trees must be removed. Often these conditions would relate to 7.1 and 7.2.

7.9 Emergency Tree Removals

Request for emergency tree removals to allow urgent repairs to water or sewerage services may be approved by a Council Officer other than the Parks & Gardens Team Leader where:

- The Parks & Gardens Team Leader or authorised representative is not available to assess the tree; and
- The tree poses an immediate danger to the public; or

- All alternatives to removal are explored; or
- The tree is not more than 5 metres tall or 2 metres wide. Removal of larger trees will require the further approval of the authorised officer.

7.10 Tree Removal Practices

Any removal of trees should always be carried out by competent employees or contractors utilising safe and appropriate methods and equipment in line with any Occupational Health and Safety or other regulations.

7.11 Removal of Waste Material & Stumps

Any foliage and light limbs should be removed from site to an approved landfill site. Material should preferably be chipped but in isolated cases it may be impractical due to small volume of material being processed.

Stumps in constructed streets and roads should preferably be removed by stump grinding machines. This reduces disturbance to surrounding soil and finished grades and is usually more cost efficient. After stump is removed by either method any excess spoil or waste material should be removed from site and soil/surface finish should be restored consistent with prior surrounding conditions.

In constructed streets/nature strips this may require the addition of suitable top soil and sowing with lawn seed.

7.12 Tree Removal Consultation Process

Wherever tree removing takes place adjoining landowners should be notified of the reason for the removal and if possible notified of the timing of the removal, particularly if there may be restrictions to access to their property due to the removal works, use of machinery etc.

With the exception of emergency removals (as described above), the following consultation process will be implemented in relation to street trees:

- The nearest ten properties will be notified by a letter drop. If there are multiple units at the one property, they will all be notified.
- All councillors will be notified by email.
- All persons notified will be allowed seven days to respond.
- Where the Parks and Gardens Officer (or deputy) has recommended tree removal, but objections have been received, the Officer should contact the objector/s and attempt to allay the concerns or pursue alternatives to removal. If the objection remains and removal remains the Parks and Gardens Officer's preferred outcome, the matter will be referred to Council.

8. Significant Tree Protection

There is number of trees within the Northern Grampians Shire Council that are of local significance. These trees should be protected and maintained at a high level in order to preserve their community values.

Significant trees, older trees or larger trees need the greatest protection owing to the potential for a major public risk event and/or property damage, the irreplaceable environmental and cultural benefits they provide and, in some cases, their inability to recover from even minor damage or disturbance.

Many authorities and private contractors have responsibility for or are involved in conducting works adjacent to Council trees, particularly in streets. All parties involved need to give due consideration to other assets that they are likely to impact upon. A guideline for working near Council trees has been developed and will be provided to the contractors who work around Council trees. (Appendix E)

9. Infrastructure Protection

Infrastructure is regularly subject to damage from adjacent trees. When any tree planting 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 10 times the mature trunk diameter, whichever is greater.

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

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

Any trees or shrubs planted without Council permission and not in conformance with Council’s tree selection and planting principles will be removed accordance with Council’s tree removal procedure.

9.1 Council Response

The response by Council to damage caused by trees will vary according to the nature and extent of the damage. The most commonly reported types of damage and Council’s response to each are outlined below.

9.1.1 Footpaths, Road, Road Underground Drainage and Kerb and Channel

As Council is responsible for both the tree and the road reserve structures, the procedure for dealing with damage issues is relatively straightforward.

Council’s response to this type of damage is:

- Damage is inspected by the Engineering Staff or representative
- When the repair priority is sufficiently high for work to take place, the damaged section is to be removed and the offending roots exposed
- Roots up to 50mm diameter may be cut with a clean, sharp implement and removed by the on-site employees or Contractor staff.
- Roots with a diameter greater than 50mm may not be cut unless authorised by the Parks & Gardens Officer or authorised representative.
- If roots which have caused or are likely to cause damage, can’t be cut without affecting the stability or health of the tree, options such as realignment of the structure are to be considered by the Parks & Gardens Officer and Works Officer. The level of expenditure committed to redesign is to be reflected by the condition and significance of the tree.
- If no other option is deemed practical, the tree may be removed in accordance with the Tree Removal Procedure.

9.1.2 Vehicle Crossovers and Fences

Although vehicle crossovers traverse Council land, their maintenance and repair is the responsibility of the owner of the property the crossover serves. The issue of liability for damage to these structures must be addressed prior to the commencement of repairs.

Council's response to this type of damage is:

- The damage is inspected by the Parks & Gardens Officer or representative, who will conduct sufficient investigation to determine with a high degree of confidence whether they believe the damage was caused by a Council owned tree or not. It will be worthwhile to provide photographic evidence.
- The Officer's findings will be reported to the Governance Officer, who will then accept or deny liability on behalf of Council.
- Where the cause of damage is denied as Council responsibility, the owner will need to provide additional evidence to be referred to Council's Insurer.
- Where Council confirms liability, the Parks & Gardens Officer will look to prevent further damage by root pruning, placement of root barrier or as a last resort, tree removal. Tree removal is to be in accordance with the Tree Removal Procedure.
- In the case of a crossover, if roots, which have caused or are likely to cause damage, cannot be cut without affecting the stability or health of the tree, the Parks & Gardens Officer may discuss with Works Officer, and subsequently the owner, options such as realignment of the crossover. The level of expenditure committed to redesign is to be reflected by the condition and significance of the tree.
- Discussions should take place with the owner, as to (a) whether any action needs take place (e.g. minor cracking), (b) in the case of a crossover whether grinding will alleviate the problem or (c) the extent of the damaged section of crossover or fence which requires repair.

9.1.3 Household Stormwater and Sewerage Services

Although household stormwater pipes may traverse Council land, their maintenance and repair is the responsibility of the owner of the property. Similarly, household sewerage pipes will be the owner's responsibility out to the Inspection Opening at the Sewer Main. In many cases the infiltration of roots into the pipes will be caused by substandard pipework. Council will generally deny any liability for these cases. The only remaining issue would be where roots have externally distorted the pipe. The issue of liability for damage to these pipes must be addressed at the time where such fault is found and prior to the commencement of repairs, to allow adequate investigation.

Council's response to this type of damage is:

- The damage is inspected by the Parks & Gardens Officer or representative, who will conduct sufficient investigation to determine with a high degree of confidence whether they believe the damage was caused by a Council owned tree or not and whether faults in the pipe have contributed. It will be worthwhile to provide photographic evidence.
- The Officer's findings will be reported to the Governance Officer, who will then accept or deny liability on behalf of Council.
- Where the cause of damage is denied as Council responsibility, the owner will need to provide additional evidence to be referred to Council's Insurer.
- Where Council confirms liability, the Parks & Gardens Officer will look to prevent further damage by root pruning, placement of root barrier or as a last resort, tree removal. Tree removal is to be in accordance with the Tree Removal Procedure.
- Discussions should take place with the owner, as to the extent of the damaged section of pipe, which requires repair.

9.1.4 Dwellings and Other Damage

Claims against Council for damage to dwelling and built structures (excluding fences) on private property and other damage caused by fallen trees or limbs should be immediately referred to Council's Governance Officer for assessment.

10. Electric Line Clearance

Energy Safe Victoria (ESV) is responsible for ensuring electrical safety. Northern Grampians Shire Council has a statutory obligation under the Electricity Safety Act 1998 for maintain public trees clear of overhead Declared Area.

Refer to the Council's "Electric Line Clearance Management Plan" for details on how this is managed and declared area maps. Maintaining overhead electric line clearances for all trees in this area is the responsibility of the local distribution company (i.e. Powercor). Council's street tree planting, species selection and pruning practises aim to minimise conflicts with overhead electric lines.

11. Tree Maintenance

Council has the responsibility to provide adequate maintenance on trees within urban streets, open space and park lands in the townships. Maintenance of clearances (e.g. for pedestrians, vehicles, buildings & signage) and traffic sight distances is critical. The correct maintenance regime on young and developing trees has the potential to significantly reduce the future risk and cost associated with mature trees.

Root growth of trees can be less than is desirable owing to the constraints of the root zone environment. Damage to infrastructure from tree roots may require measures to be taken that are not in the best interest of the tree. A variety of procedures to control and/or enhance root growth need to be investigated and trailed.

Where trees have been lopped or damaged without the permission of Council the offending party will be charged by Council the full cost for restoration of the tree.

11.1 Pruning

Pruning is an essential component of the management of Council's tree asset. Once trees are established, pruning is the key maintenance process to keep individual trees in a safe and visually appealing condition. As a general rule, the pruning of trees should be minimised, as all pruning cuts are potentially injurious and trees look more appealing when left to form their natural shape. Trees should only be pruned to achieve specific goals.

Council trees should be pruned to:

- Maintain public safety through the removal of structurally unsound limbs
- Maintain tree health through the removal of dead or diseased material
- Maintain prescribed clearances from services
- Maintain prescribed clearances from roads, footpaths and driveways
- Ensure traffic safety and visibility of road signs
- Maintain tree form through the removal of misshapen limbs
- Minimise future work requirements through the removal of potential problems at an early stage

Council trees should be pruned in accordance with the Australian Standard for Tree Pruning, AS4373. Pruning should be carried out on a programmed basis, with each tree being visited and pruned as necessary at least once every three years. In addition, individual trees may be pruned as necessary in response to customer requests from residents, Council staff or other parties.

Pruning of Council owned trees by anyone other than Council staff or Council engaged contractors are not permitted.

Trees should be pruned to maintain the following clearances:

- Power lines as per Electric Line Clearance Management Plan
- Over Footpaths 2.5m to the lowest foliage or limb
- Over Driveways 3.0m to the lowest foliage or limb
- Over Roadways 3.5m to the lowest foliage or limb at kerb and 4.5m over main trafficable Carriageway (excludes parking areas)
- Traffic Sight Lines vehicles approaching an intersection or a driveway, should be visible to a pedestrian or the driver of a vehicle from the following distances,

Speed Limit (Km/h)	Distance (m)
40	60
50	80
60	105
80	165

11.2 Property Lines

An ideal landscape is one in which street trees and trees in private property combine to form an interwoven canopy, which softens the hard lines of property boundaries, footpaths and roads. Countering this ideal is the legal right of property owners to remove limbs that grow into their properties from adjoining public land or properties.

Where a branch from a street tree is growing over private property and causing concern to the property owner, Council will seek to alleviate the problem through judicious pruning and negotiation with the property owner. Pruning back to the property boundary in a manner that will adversely affect the form of the tree should only be performed as a last resort.

Similarly, Council will generally only request cutting back of trees and shrubs from adjoining private properties in relation to retaining safe travel along footpaths and roads.

11.3 Shading

Trees will only be pruned to alleviate shading of private properties only if:

- The pruning will have a genuine long lasting benefit; and
- The form of the tree will not be adversely affected.

11.4 Root Barrier Installation & Root Pruning

Root barriers are placed within the root zone to control the growth of root systems into locations where they cause safety or structural issues. Root barriers have their best effect when installed at the time of tree planting. The expense of placing root barriers will mean that they are only located where they are likely to be effective and the cost is warranted when weighed against the likelihood and future cost of damage. Retro fitting of root barriers is less effective, likely to be more extensive/expensive and will usually be associated with root pruning, which incorporates other health issues for the tree. For these reasons, it is usually avoided for all but exceptional circumstances.

Root pruning is generally only performed where a specific problem with nearby infrastructure exists. Root pruning cuts provide an entry point for disease. Major root pruning can also affect the overall stability of the tree. Issues of such a major nature that the tree requires removal are to follow the Tree Removal Process.

12. Environmental and Community Imperatives

Residents generally have in interest and often strong view on tree issues that are close to their properties. Consultation with residents can create a much better understanding of tree issues and a wider acceptance of the role and works undertaken by the Council. It should therefore be an integral part of tree management practices for the Northern Grampians Shire Council.

Large trees are the most effective sinks of old carbon and their protection and further planting is important in overcoming greenhouse effects. Equally, planting of young trees is important to provide a method of trapping new carbon emissions. Recycling of materials from tree maintenance operations such as woodchip, leaves, timber can reduce cost and will reduce dependence upon landfill.

13. Pest and Disease Control

Trees are subject to a range of pests and diseases. The concept of eradication is not practical in most cases, many are part of a natural balanced system and harm minimisation should be seen as the best approach. Acceptable “thresholds” need to be determined for each problem.

Pest and disease do not recognise boundaries so a co-operative approach required between land owners/managers. Where pests and diseases have the potential to affect Council’s tree asset or significant trees Council should assist residents and other land managers in being aware of potential problems, control options and determining the best control method.

14. Urban Nature Strip Management Guidelines

Nature strips play an important role in the aesthetic, environmental and social health of the municipality. Nature strips complement and enhance the streetscape by providing a green zone between carriageway, pedestrian footpath and the adjacent property.

14.1 What is a Nature Strip?

The term commonly refers to an area of land between the property boundary and the road kerb or edge of the road in an urban street. Generally this land is managed by Council as part of the road reserve, but it's often maintained by residents. The typical treatment is grass with street trees planted as per the Urban Tree Management Plan.

14.2 Maintenance of Nature Strip

The nature strip is a public land and forms part of the road reserve. While Council is the responsible authority, it does not undertake any renovation or maintenance (including mowing and watering) of nature strips unless the condition of the nature strip is considered to be a potential fire hazard, pedestrian trip or fall hazard or other hazardous condition, or interferes with the drain.

Council relies on the goodwill and established community expectations that residents will mow and / or otherwise maintain the nature strip in order to present a neat and tidy streetscape.

14.3 Acceptable Condition of Nature Strips

A nature strip should be maintained to a reasonable level of appearance. This usually translates to the regular mowing of grass throughout of the year, in order to keep the nature strip aesthetically pleasing and conforming to the overall streetscape of our urban areas.

14.4 Nature Strip Council Responsibility

Council will maintain nature strips adjoining or within,

- Public reserve areas such as parks or garden
- Council facilities such as public buildings, recreation grounds

Parks and Garden will maintain above mentioned nature strips as per the annual maintenance program. The annual maintenance program will be prepared as per adopted budget and available resources.

14.5 Failure to Maintain a Nature Strip

Where a resident fails to maintain a nature strip in accordance with these guidelines and:

- Interferes with drainage,
- The condition of the nature strip is a traffic or pedestrian hazard or,
- It does not provide appropriate pedestrian access or,
- It becomes a safety or fire hazard or,
- It becomes unsightly or impacts unfavourably & significantly on the local amenity

Northern Grampian Shire will arrange for maintenances or reinstatement of the nature strip. However the frequency of mowing a particular neglected nature strip is limited to a maximum of two per year. Normally this kind of mowing activity will be programmed prior to the declared fire season and Easter or Christmas to present a tidy town for visitors and the community.

14.6 Repair of Nature Strip Damage

Council and utility authorities that supply water, gas, electricity and telecommunications, may from time to time require access to the nature strip to perform maintenance work. The service authority is responsible for repair and reinstatement of the nature strip upon work completion.

If the nature strip is damaged as a result of building works on private property, the builder or property owner is responsible for repair and reinstatement of the nature strip.

14.7 Items Not Permitted on the Nature Strip

In addition to any item which an Authorised Officer of the Northern Grampians Shire Council considers may constitute a risk, items that must not be installed or which are not permitted as part of the nature strip include,

- Shredded plant products such as wood chips and bark
- Rocks or pebbles greater than 7 mm diameter
- Blue Stone pitchers, railway sleepers or retaining walls
- Hard surfaces such as concrete, pavers, asphalt or stepping stones are not permitted in residential areas.
- Irrigation systems
- Letter Boxes, which must be on private property
- Temporary or permanent electrical wiring, including tree lightings
- Metal stakes or star pickets

14.8 Alternative Nature Strip Treatment

14.8.1 Grassed Nature Strip

Grassed nature strips are the most common form of nature strip treatment throughout the Northern Grampians Shire Council. The use of suitable grasses provides a low maintenance treatment which requires periodic mowing to maintain.

14.8.2 Permeable Surface Treatment using fine gravel

An alternative to grass is a permeable surface treatment such as granitic sand or stones less than 7 mm. This is a low maintenance treatment however it will require periodic weeding and maintenance. Permeable surface treatment such as granitic sand will only be approved by Council Officers after consideration of Slip & trip risk associated with the site or adjoining footpath.

Please contact Council's Parks & Garden Team leader on 5358 8700 to discuss about the alternative options for the nature strip.

APPENDIX A - Tree Selection Process

The street tree species will be selected for planting depending on their suitability for the site. A number of factors will be considered before selecting a species for a particular site from the preferred species list (Appendix B).

Tree Selection Framework



Site Considerations

Natural Site Factors	Descriptors
Soil Type	Soil condition of the site including base material depth and slope
Aspect	Sun exposure: North/South/East/West
Slope	Steep / Moderate / Minor
Rain Exposure	Rain Shadow: yes/no
Nearby remnant vegetation	Adjacent, nearby, not like to be affected
Water table	High, moderate, depth, deep water table
Space available to plant	Nature strip width suitable : yes/no

Human Site Factors	Descriptors
Nearby Services	Overhead power lines , in ground services, street furniture
Street Lighting	Impact upon: crossings, intersections and other facilities
Impervious Surface	Surrounding, nearby, no impact
Traffic Condition	Sight distance , road category
Heritage location	Recognised heritage area
Local Character	Contribution to the unique characteristics – environmental, visual & cultural – that define the identity of a place

Qualities of individual Species	Descriptors
Root/branch/fruit behaviour	Potential for damage and liability claims
Mature height/width	Height and width of the specie
Water Requirements	High/medium/low
Longevity	Long/medium/ short lived
Conformity of street aesthetic	Yes /no

Weather tolerance	Yes/no
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APPENDIX B - Preferred Tree Species

These specie selections are for street tree plantings. For parks, reserves and other amenity landscaped areas, the species selection list is more varied. This preferred species list will be reviewed annually.

Species for under power lines

- Lagerstroemia "Souix" (crepe myrtle)
- Lagerstroemia "Tuscarora"(crepe myrtle)
- Callistemon species
- Prunus cerasifera "Nigra" (power lines)
- Prunus blireana (power lines)
- Eucalyptus leucoxylon "Euky Dwarf"
- Pyrus calleryana "Edgewood" (ornamental pear)
- Pyrus betulaefolia "South worth dancer" (ornamental pear)
- Eucalyptus torquata

Species for larger nature strips (no powerlines)

- Pyrus calleryana "Bradford" (ornamental pear)
- Pyrus calleryana "Capitol" (ornamental pear)
- Pyrus calleryana "Chanticleer" (ornamental pear)
- Pyrus Ussuriensis (Manchurian pear)
- Ulmus parvifolia (chinese elm)
- Quercus species (oak) only in streets to maintain existing avenues of oaks
- Angophora costata
- Eucalyptus leucoxylon ssp megalocarpa

1. Lagerstromia "Souix"



2. Lagerstromia "Tuscorora"



3. Callistemon species



4. *Prunus blireana*



5. *Prunus cerasifera* "Nigra"



6. *Eucalyptus leucoxylon* "Euky Dwarf"



7. *Pyrus Calleryana* “edgewood”



8. *Pyrus betulaefolia* “southworth dancer”



9. *Eucalyptus torquata*



10 Pyrus "Bradford"



11. Pyrus "Capitol"



12. Pyrus "Chanticleer"



13. *Pyrus ussuriensis*



14. *Ulmus parvifolia*



15. *Angophora costata*



16 Eucalyptus leucoxylon ssp megalocarpa



APPENDIX C - Tree Planting Program 2012/2013

STAWELL TOWNSHIP

Street	Tree Type	Quantity
Barnes Street	Crepe Myrtle "souix" Pyrus-Ussurisensis	20 1
Church Street	Crepe Myrtle "souix"	7
Clifton Avenue	Pyrus-Edgedell Chinese Elm	12 1
Cooper Street	Pyrus-Bradford	1
D'Arcy Street, Doyle to Sloane Street	Pyrus-Chanticleer	25
Darlington Road	Pyrus-Southworth "dancer"	6
Dawson Street	Pyrus-Southworth "dancer" Ulmus-Procera	16 1
Holt Street	Pyrus-Southworth "dancer"	1
London Road	Pyrus-Edgedell	1
Mary Street	Crepe Myrtle "natchez"	31
Moonlight Street	Pyrus-Southworth "dancer"	1
Playford Street, Western Highway to Lake Road	Fraxinus "urbanite"	10
Scotland Place	Crepe Myrtle "souix"	6
Sherriff Street, Crothers to Dawson Street	Crepe Myrtle "souix"	53
Sloane Street, Sherriff to Cooper Street	Crepe Myrtle "souix" Pyrus-Chanticleer	36 4
Victoria Street (Caltex Garage site)	Pyrus-Bradford	3
Upper Walker Street	Pyrus-Capitol	2
Wakeham Street	Pyrus-Ussurisensis	1
Uri Court	Corymbia Maculata	24
Public Open Spaces	Assorted Natives	20
• Cooper Street	Assorted Natives	30
• Drain Reserve (Taylors Gully)	Assorted Natives	12
• Fraser Park	Assorted Natives	50
	Assorted Natives	20

Reserve		
• Reserve	Magdala	
• Dams	Maude Street	
• Reserve (Athletic Oval bank)	North Park	

ST ARNAUD TOWNSHIP

Street	Tree Type	Quantity
Beaconsfield/Alma Street	To be decided	To be decided
Butcher Street	To be decided	7
Dundas Street	To be decided	28
Edward Street	To be decided	11
Kings Avenue (8 & 21)	Oak replacements	2
Long Street	To be decided	10
Napier Street (out stand garden beds)	Crepe Myrtle “tuscorara”	7
Powell Street	To be decided	12
Silvermines Road (medium strip)	Pyrus-Capitol	22
Smith Street	Crepe Myrtle “tuscorara”	10
Public Open Spaces		
• King Georges Park	Replacements as required	
• Pioneer Park	Replacements as required	
• Queen Mary Gardens	Replacements as required	

OTHER URBAN TOWNSHIPS

Replacements will be carried out as identified during the financial year

This list is subject to annual budget & available resources.

APPENDIX D - Risk Assessment Template

Urban Tree Risk Assessment

Location: Date:

Species: Height & Crown Width:

Age	Juvenile	
	Semi Mature	
	Mature	

Tree Location	Residential	
	CBD	
	Rec Reserve	

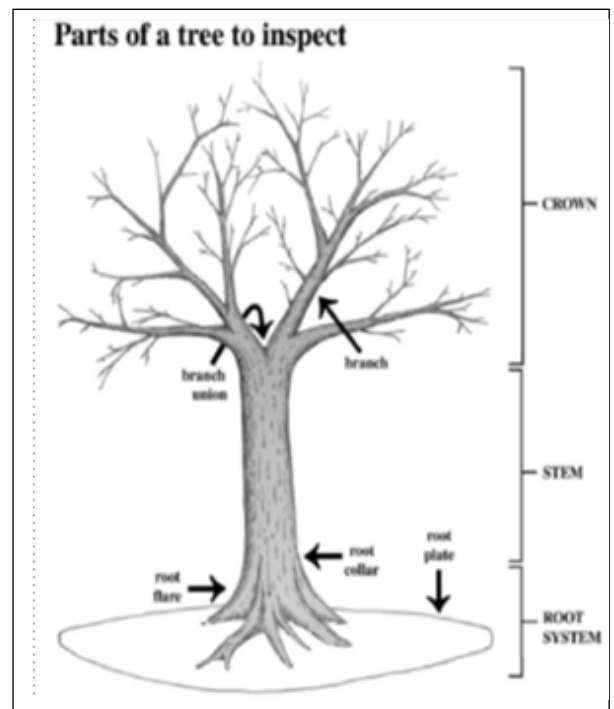
Life Remaining	0	
	0 – 5	
	5 – 10	
	10 +	

Crown Growth	Symmetrical	
	Unbalanced	

Stem & Branch Damages	Dead Branches	
	Co – Dominant Stems	
	Poor Branch Attachments	
	Visible Cracks	
	Poor tree Structure	
	Decay	

Signs of Problems	Loose Bark	
	Cavities	
	Seams	
	Burls	
	Stubs	
	Cankers	
	Pest & Diseases	

Roots Zone	Uplifting Roots	
	Girdling Roots	
	Diseases	



General Comments

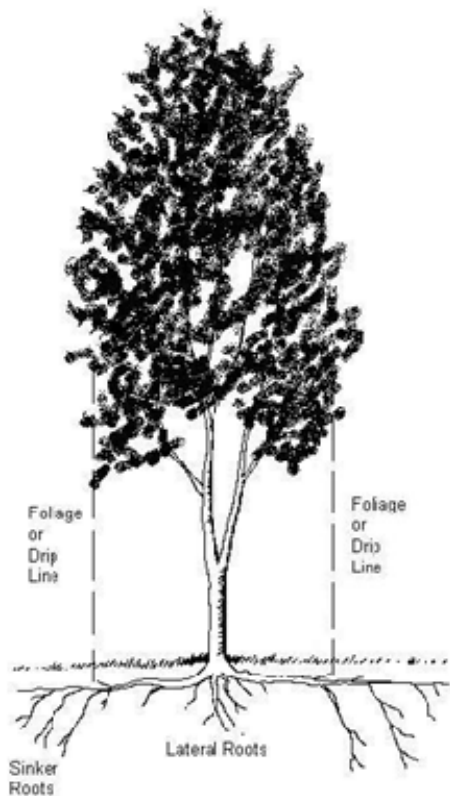
Works Required

Conclusion	No further Action Required	
	Monitor & Review in 12 months	
	Minor works required & Schedule in Parks & Garden Team works program	
	Tree Audit Required	

Assessed by:

APPENDIX E - Guidelines for Work near Council Trees

It is recommended that the following information become the basis for the data sheet given to the public as Guidelines for Work near Council Trees.



Depiction of Drip Line

- No mechanical excavation may take place within the drip line of a Council tree. The drip line is defined as the outer most ends of the branches and foliage. (Refer to the Depiction) This distance from the trunk can be identified by (a) assessing the point where the long horizontal branches end and measuring back to the tree's trunk or (b) in the case of tall, narrow trees, the drip line is to be taken as one third the tree's height or 1.5 metres whichever is the greater.
- Installation of pipes shall be performed using boring techniques at a minimum depth of 600mm. Approval must first be obtained from Council's Parks & Gardens Team Leader. Where boring is not possible, excavation is to be by hand with care taken not to damage tree roots.
- No tree root with a diameter greater than 60mm may be cut without the approval of the Parks & Gardens Team Leader.
- NO TREE MAY BE REMOVED WITHOUT COUNCIL CONSENT. The issuing of any other permit does not override this requirement.
- No tree may be pruned or branches removed by anyone other than someone authorised by the Parks & Gardens Team Leader, except in an emergency situation, or with Council's written consent.
- The stockpiling of materials, debris and soil within the drip line IS NOT ACCEPTABLE. Materials and equipment to be used on site should be stored on site.
- No vehicles, plant or skips are to be placed/ parked on the nature strip without the express consent of Council's Local Laws Department.
- All works must be undertaken with caution in proximity to Council trees and any damage is to be promptly reported to the Parks & Gardens Team Leader.
- The individual proposing or implementing the work will be responsible for arranging a site meeting with Council's Parks & Gardens Team Leader to discuss any impact the work will have on Council trees.
- If you require any further information relating to these matters, please contact Council's Parks & Gardens Team Leader on 5358 8700.

A COPY OF THIS SHEET IS TO BE GIVEN TO THE ON SITE SUPERVISOR TO ENSURE ALL CONDITIONS ARE COMPLIED WITH. FAILURE TO DO SO WILL NOT REMOVE THE PERMIT HOLDER'S RESPONSIBILITY.

APPENDIX F - Tree Removal Checklist

TREE REMOVAL REQUEST / ACTION

Location of Tree :
Species of Tree :
Date of Assessment:
Person doing Assessment Name: Position:

Does the tree fit any of the following categories?		Yes	No
Threatening to cause significant property damage		<input type="checkbox"/>	<input type="checkbox"/>
Tree causing interference to services or mains		<input type="checkbox"/>	<input type="checkbox"/>
If so which	Kerb/Channel	<input type="checkbox"/>	<input type="checkbox"/>
	Water	<input type="checkbox"/>	<input type="checkbox"/>
	Sewer	<input type="checkbox"/>	<input type="checkbox"/>
	Power	<input type="checkbox"/>	<input type="checkbox"/>
	Other: specify:	<input type="checkbox"/>	<input type="checkbox"/>
Causing sight distance problems		<input type="checkbox"/>	<input type="checkbox"/>
Storm damaged or limb/crown failure		<input type="checkbox"/>	<input type="checkbox"/>
Dying, diseased or dead		<input type="checkbox"/>	<input type="checkbox"/>
Self-sown or sucker growth		<input type="checkbox"/>	<input type="checkbox"/>
Under 10 years old		<input type="checkbox"/>	<input type="checkbox"/>
True to type		<input type="checkbox"/>	<input type="checkbox"/>
Insufficient vertical or horizontal clearance		<input type="checkbox"/>	<input type="checkbox"/>
Can any pruning work or other treatment allow the tree to remain?			
Without posing further or unacceptable risk		<input type="checkbox"/>	<input type="checkbox"/>
General comments on assessment:			
.....			

Action Required

Specify:

Any other information: