

Mansfield Shire Council

Tree Management Plan

2025

Deleted: 2023



Mansfield Shire

Mansfield Shire Council **Tree Management Plan**

Contents

1. Executive Summary4

2. Definitions5

3. Relevant Acts, Standards and Documents7

4. Purpose7

5. Scope.....8

6. Review9

7. Extent of Council Responsibility.....9

8. Areas with Partial Coverage and Areas Not Covered10

9. Planting, Maintenance and Replacement11

 9.1 Proactive Maintenance11

 9.2 Reactive Maintenance11

 9.3 Maintenance Restrictions12

 9.4 Trees of Significance12

 9.5 Removal of significant trees12

 9.6 Managing Pests and Disease13

10. Appeal Relating to Tree Removal and Maintenance.....14

11. Tree Risk Management.....15

 11.1 Guiding Principles.....15

 11.2 Introduction and Principles of Tree risk management.....15

 11.3 Quantified Tree Risk Assessment (QTRA)16

 11.4 Inspections and Risk Assessment for Urban Areas.....21

 11.5 Inspections and Risk Assessment Regime for Rural Areas.....21

 11.6 Modes of Inspection22

 11.7 Proactive Inspections by Risk Rating Areas22

12. Property Damage Caused by Trees24

13. Community Consultation.....24

14. Force Majeure/Exceptional Circumstances.....24

Appendix 1: Road Maintenance Envelope25

Appendix 2: Workflow Chart (Customer Request System)26

Appendix 3: Maps of Town Boundaries and High Risk Areas27

Acknowledgement of Traditional Custodians

Mansfield Shire Council acknowledges the Taungurung people as the traditional custodians and we pay our respects to their Elders past and present. Council extends that respect to all members of our community.

Deleted: Mansfield Shire Council acknowledges the Taungurung people as the traditional owners of the land upon which our Shire is located. We pay our respects to the Taungurung elders, past, present and future and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Mansfield Shire Council **Tree Management Plan**

1. Executive Summary

This document provides Mansfield Shire Council ([Council](#)) with clear management directives towards tree management, and particularly the maintenance and risk management of tree assets growing on Council owned and managed land, which also covers trees within managed roads and other reserves in the Mansfield Shire.

It works in consideration with historical values, current requirements and future objectives.

The value of trees within the environment is widely accepted as high, due to their positive contribution towards maintaining the Shire's sustainability, community health and atmosphere. Collectively, trees add value to our landscapes by softening the harsh lines of buildings, complimenting architecture, improving biodiversity, providing privacy and lowering the ground temperature surrounding treed areas. The understanding of the role that trees play in our environment has led to an increase in the veneration of trees and they can evoke strong passions.

Tree scape values:

- ▶ Improve air quality and catch dust and pollutants
- ▶ Provide shade and shelter in extreme heat and light rain
- ▶ Compliment Environmentally Sustainable Building Design thermal qualities
- ▶ Tree canopy microclimates reduce reflective heat
- ▶ Lower the impacts of storm water runoff, i.e., soil loss, flooding, pollution
- ▶ Filter polluted water
- ▶ Wildlife habitat and corridors
- ▶ Increase biodiversity
- ▶ Aesthetically pleasing character of a town
- ▶ Historical / cultural recognition
- ▶ Increase economic value of housing and residential avenues
- ▶ Lower energy consumption and cost

Council recognises that despite their benefits, the existence of trees in public areas can create an element of risk to the public, property and services through limb loss or complete failure. There are costs in relation to new plantings, including uplifting and formation pruning along with weight reduction and associated maintenance works for larger trees with high access requirements. Trees can have significant impacts on infrastructure including drainage, construction projects, roads, footpaths, playgrounds and buildings.

This Plan details the management strategies that Mansfield Shire Council has in place to ensure the longevity and quality of trees within the Shire's urban and rural environments, as well as the risk management practices that are utilised to protect the community.

Deleted: e

Deleted: extensive

2. Definitions

Term	Definition
Arborist	A person with a Certificate 3 in Arboriculture as a minimum and two years of relevant industrial experience. Consultant arborist must have a minimum diploma level qualification.
High Risk Areas	As defined in Township maps (Appendix 3), an area in which Mansfield Shire Council is the responsible authority or the designated committee of management and is of high use by the public on either a regular or one-off basis. These areas include but are not limited to; <ul style="list-style-type: none"> ▶ shopping precincts ▶ schools and kindergarten precincts ▶ public parks and playgrounds ▶ swimming pool reserves ▶ recreation and sports facilities ▶ carparks and footpaths ▶ reserves ▶ other areas outside Township areas as deemed by Council other land parcels that are high use and are the responsibility of the Mansfield Shire Council
Low Risk Areas	An area outside township maps in which Mansfield Shire Council is the responsible authority or the designated committee of management not including any rural parcels nominated in high or medium risk zones.
Medium Risk Areas	An area within the townships maps which Mansfield Shire Council is the responsible authority or the designated committee of management and is outside of the high use areas (stated above).
Open Space	Refers to land that is publicly accessible and provided for community benefit.
Quantified Tree Risk Assessment (QTRA)	<p>QTRA is a structured methodology used to assess the risk posed by trees in a way that is quantifiable, consistent and defensible. QTRA helps tree managers (like councils, arborists and landowners) make informed decisions about tree safety by:</p> <ul style="list-style-type: none"> • Quantifying the likelihood of tree failure • Assessing the potential consequences (e.g. injury, damage) • Evaluating the exposure of people or property to the risk <p>The outcome is a numerical risk rating which can guide whether a tree should be retained, monitored, pruned or removed.</p>

Mansfield Shire Council **Tree Management Plan**

Term	Definition
Reserve	Includes bushland, parks, gardens, reserves, playgrounds, ovals, and other areas such as water retention locations.
Risk	<u>The likelihood of an event occurring combined with the consequences of that event, typically assessed using a risk matrix or framework aligned with standards such as AS ISO 31000:2018 – Risk Management.</u>
Road	A public or private street, road, or thoroughfare to which public access is available on a continuous or substantially continuous basis to vehicles or pedestrians or both and includes a bridge, viaduct or subway, or an alley, laneway, or walkway.
Street Tree	A tree located within an urban area that has at least a half of its base located within a road verge/road reserve and less than a half in private property and/or that is located on a road reserve within the 50 kms or less speed limit zones.
Tree	A tree is a woody plant with generally a single perennial trunk at least 75 millimetres in diameter at <u>standard</u> height (DSH). Most trees have <u>formed</u> crowns of foliage and attain heights <u>exceeding</u> four (4) metres.
Tree Management Responsibilities	The tree management responsibilities defined within this document are applicable only to those areas directly under the delegated responsibility of Mansfield Shire Council.
<u>Trees on roadsides</u>	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 and unused road reserves.
<u>Trees near Council buildings or structures</u>	<u>Trees located near buildings or structures owned or managed by Council (e.g. community centres).</u>
<u>Trees in Open Spaces, Parks and Reserves</u>	<u>Any tree in Council owned or managed land that is set aside primarily for recreation, nature conservation, passive outdoor enjoyment, and public gatherings.</u>
<u>Tree Hazards</u>	<u>A tree hazard refers to a structural defect, condition, or situation involving a tree (or part of a tree) that poses a potential risk to the safety of people, property, or infrastructure.</u>
Urban Trees	Trees according to the Mansfield Planning Strategy that exist in Main Service Centre, Towns and Townships

Deleted: This will be tailored to the definition from the QTRA.

Deleted: erect

Deleted: breast

Deleted: DBH

Deleted: definitely

Deleted: in excess of

Deleted: R

Deleted: Hazardous Tree

Deleted: Defined as trees that have a defect that may cause injury or property damage if not removed such as:
 Structurally Unsound - Bifurcation with high chance of failure within the next five (5) years, excessive borer activity, dying or dead. ¶
 Exposed Roots - Having a high potential as a trip hazard (provided no remedial action is possible). ¶
 Trees Causing Major Damage - Where tree branches/roots are causing significant damage to Council, utility, or private infrastructure and where this has the potential to increase significantly. ¶
 Inappropriately Located - tall tree species with structural defects under power lines; a tree leaning over road/paths/property whose form cannot be corrected by pruning or other arboricultural methods.

Mansfield Shire Council **Tree Management Plan**

3. Purpose

The purpose of Mansfield Shire Council's (Council's) Tree Management Plan is to provide clear and consistent directives for the management, maintenance, and risk mitigation of tree assets located on Council-owned and managed land. This includes trees along streets, roads, reserves, and public open spaces.

The plan aims to balance the environmental, aesthetic, cultural, and economic value of trees with the need to ensure public safety and protect infrastructure. It outlines responsibilities, inspection regimes, and maintenance strategies to support a sustainable and diverse urban forest while addressing potential risks such as limb failure, disease, and infrastructure damage.

Deleted: To detail how Council deal with trees in respect to inspections, assessments and management of all trees Council is responsible for. Council will serve in the best interest of the whole Shire by delivering quality services and representing the community in wider situations. ¶

4. Relevant Acts, Standards and Documents

Acts

- ▶ *Local Government Act 2020*
- ▶ *Road Management Act 2004*
- ▶ *Road Safety Act 1986*
- ▶ *Occupational Health and Safety Act 2004*
- ▶ *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- ▶ *Flora and Fauna Guarantee Act 1988 (FFG Act)*
- ▶ *Catchment and Land Protection Act 1994*
- ▶ *Environment Effects Act 1978*
- ▶ *Wildlife Act 1975*
- ▶ *Aboriginal Heritage Act 2006*
- ▶ *Heritage Act 1995*
- ▶ *Planning and Environment Act 1987*
- ▶ *Agricultural and Veterinary Chemicals (Control of Use) Act 1992*
- ▶ *Fences Act 1968*

Australian Standards

- ▶ AS 4373 – 2007 Pruning of Amenity Trees
- ▶ AS4970 – 2009 Protection of Trees on Development Sites
- ▶ AS 2303 – 2015 Tree Stock for Landscape Use

Council Documents

- ▶ Council Plan 2025-29
- ▶ Community Initiated Project Policy
- ▶ Community Engagement Policy
- ▶ Mansfield Environment Strategy
- ▶ Street Tree Policy
- ▶ Road Management Plan
- ▶ Road Register
- ▶ Roadside Conservation Management Plan 2014
- ▶ Planning Strategy 2022
- ▶ Local Laws

Deleted: 2021 – 2025

Other Documents

- ▶ The Infrastructure Design Manual
- ▶ Operational Responsibility for Public Roads Code of Practice (Vic Roads)
- ▶ Procedure to rely on the Road safety exemption in planning schemes (DELWP)
- ▶ Mansfield Planning Scheme

Mansfield Shire Council **Tree Management Plan**

5. Scope

The Plan applies to all [street trees](#), [park and open space trees](#), [roadside trees](#) and [trees near Council buildings or structures](#) that Council has management responsibility for and applies to all developers, builders, service providers, Council facility tenants, residents, civil contractors, event organisers and Council officers undertaking activities in proximity to Council trees. Trees excluded from this plan are those on private property, VicRoads managed land, DEECA and Parks Victoria managed land and other land which Council does not have responsibility for.

Deleted: trees on streets, roads, reserves, and public open spaces ...

[A Tree Management Framework has been implemented to support effective management, the following tiered guidance outlines focus areas and considerations for different tree environments:](#)

<u>Category</u>	<u>Focus</u>	<u>Considerations</u>
Street Trees	Amenity, shade and cooling, pedestrian comfort and safety, contribution to neighbourhood character, minimising conflict with infrastructure.	<ul style="list-style-type: none"> ▶ Species selection for narrow verges and constrained sites ▶ Pruning and clearance near powerlines, buildings, and signage ▶ Visibility at intersections, driveways, and pedestrian crossings ▶ Resilience to drought, pests, and diseases ▶ Contribution to canopy cover targets and climate goals
Park and Open Space Trees (including cemeteries)	Biodiversity, canopy coverage, recreational safety, and long-term sustainability.	<ul style="list-style-type: none"> ▶ Habitat value and contribution to ecological networks ▶ Shade provision for play spaces, paths, and gathering areas ▶ Integration with landscape design and open space masterplans ▶ Succession planning and species diversity
Roadside Trees	Fire risk management, road user safety, and conservation values.	<ul style="list-style-type: none"> ▶ Sightlines and clearance for traffic and pedestrians ▶ Native vegetation protection and offset requirements ▶ Weed and pest plant management ▶ Compliance with state road and fire management agencies
Trees near Council Buildings or Structures	Structural safety, aesthetics, shade, and asset protection.	<ul style="list-style-type: none"> ▶ Proximity to and interaction with buildings and services ▶ Root impacts on footpaths, pipes, and underground infrastructure ▶ Maintenance access and tree protection during capital works ▶ Visual contribution to civic and community spaces

Mansfield Shire Council **Tree Management Plan**

6. Review

This Tree Management Plan will be reviewed every four years and any revisions will be subject to community consultation and Council approval processes. The Plan may also be reviewed sooner based on emerging advice, audit, or investigation outcomes. Council may undertake internal or third-party reviews at any time to safeguard the management systems that are in place for the delivery of the levels of service adopted by Council.

7. Extent of Council Responsibility

This Plan extends to the following areas where Council has a maintenance or authority responsibility.

7.1 Urban Trees

In accordance with this document and with reference to its purpose Council will undertake proactive inspection, assessment and action with respect to the trees within its urban areas defined as Main Service Centre, Town or Township as per the Mansfield Planning Strategy (see **Appendix 3** for maps). This includes recreational and public spaces, mitigating the risk to the community through loss of limbs or from total failure which can result in property damage, injury or loss of life. Council is responsible for implementing processes and systems to achieve a proactive urban approach and inspection of trees as set out in this plan.

'Urban' Areas are defined as follows:

- ▶ **Main Service Centre:** Mansfield
- ▶ **Town:** Bonnie Doon
- ▶ **Township:** Jamieson, Merton, Goughs Bay and Merrijig

Council will take a risk management approach with inspection and maintenance of trees in an urban setting [and includes street trees, trees roadsides, trees in open spaces, parks and reserves and trees near Council buildings or structures.](#)

This proactive approach to urban areas will be independent of reactive actions associated with tree failure during storms or other emergency response.

7.2 Rural Trees

Within a road reserve on road register: Council has no responsibility or liability for proactively managing any trees outside the road maintenance envelope, as outlined in **Appendix 1**, unless a previous risk has been raised and a plan is in place to manage that tree.

Within an unused road reserve / or other reserve: Council has no obligation or liability for proactively managing any trees on unused road reserves or other unmanaged reserves that are deemed to be council owned unless a previous risk has been identified and is now being managed under a maintenance schedule.

8. Areas with Partial Coverage and Areas Not Covered

8.1 Crown Land

Within Mansfield Shire there are trees which are located on Crown Land which is managed by other authorities including Department of Energy, Environment and Climate Action, Goulburn Murray Water and Parks Victoria. Any required maintenance or issues raised with Council will be forwarded to the responsible authority. Any existing management agreements will be considered.

8.2 Utility Services and Electrical Line Clearance

The relevant service providers of water, gas, sewer, telecommunications and power are responsible for the maintenance of its infrastructure regarding trees.

8.3 Private or Body Corporate Land

A private street or private land parcel is the responsibility of the private landowner or body corporate. This includes responsibility for:

- ▶ Footpaths and overhanging vegetation
- ▶ Vegetation (including fallen limbs/trees) that obstruct footpaths and roads

8.4 Arterial Roadside Tree Maintenance

The Department of Transport and Planning is the responsible coordinating authority for arterial roads. These include Freeways as well as Declared Arterial and Non-Declared Arterial State Roads.

For Arterial roadsides in an urban area, the municipal council of the municipal district in which the road is located is the responsible authority where the speed limit is 60kph or less.

9. Planting, Maintenance and Replacement

Tree planting should be done in a programmed and sustainable manner, leading to an approach that is environmentally and economically sound. Having the appropriate combination of species and age diversity are an integral part of a sustainable tree population, achieving long term stability and landscape character.

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

Street trees will be planted in line with Mansfield Shire Council's Tree Planting Plan.

Deleted: (under development).

9.1 Proactive Maintenance

In accordance with Table 8 and 9 [under 11.4 and 11.5 of this Plan](#), Council will undertake scheduled inspections of identified risk-based areas. A qualified arborist will examine the trees for any structural faults, disease, or anything that may compromise the integrity of the tree.

All inspections will be recorded on a log that will include:

- ▶ Location and species of the tree
- ▶ Any integrity issues
- ▶ Probability of failure and likely consequences of failure.

If mitigation works are required, they will be carried out in accordance with Table 10 [under 11.6 of this Plan](#).

Deleted: – Maintenance Targets and Response Times

Other proactive activities may include, but not limited to:

- ▶ Removal of dead, hazardous, and declining trees
- ▶ Removal of deadwood
- ▶ Formative pruning
- ▶ Canopy lifting or reduction
- ▶ Removal of hanging, broken or diseased branches
- ▶ Stump removal
- ▶ Removal of redundant tree guards, stakes, and surrounds
- ▶ Maintaining required clearances from properties.

In line with Council's Road Management Plan, vegetation within the "road maintenance envelope" is managed as per section 107 of the *Road Management Act 2004*. This scope is defined in **Appendix 1**.

9.2 Reactive Maintenance

Council will carry out reactive inspections in relation to a tree or trees that are under their management. The following situations will trigger a reactive inspection:

- ▶ A Council employee identifies an issue,
- ▶ A member of the community raises an issue, or
- ▶ An incident has occurred.

Mansfield Shire Council **Tree Management Plan**

Inspections will be carried out according to the timeframes outlined in Table 10 [under 11.6 of this Plan](#) and incidents will be logged according to the Workflow Chart in **Appendix 2**. Council will carry out reactive inspections in accordance with this document and with reference to its purpose, and where trees pose an immediate risk to either persons or Council assets, they will be made safe and/or removed as soon as possible.

Where a tree, in a rural setting on a boundary line does not pose an immediate risk to persons or Council assets and is outside the road maintenance envelope Council may recommend the owner of the adjacent land obtain an arborist's report (at their own cost) on the health and recommendations for the tree.

If a qualified arborist's report identifies a hazardous tree that is likely to fail in a shorter timeframe than it would take to apply for and be issued with a Planning Permit for its removal the applicant may apply to Council to remove the tree. The applicant will require a "Works Within a Road Reserve Permit" and the fee for this will be waived. An arborist's report must be submitted to the Manager Field Services / Environment [and Sustainability](#) Officer for approval for removal. All documentation and approvals must be attached to the original file created for the initial inspection.

If a qualified arborist's report identifies a hazardous tree that is **NOT** likely to fail in a shorter timeframe than it would take to apply for and be issued with a permit for its removal, the applicant will be required to put in a planning application under *Mansfield Planning Scheme 52.17 – Native Vegetation*. The applicant will require a "Works Within a Road Reserve Permit" from Council. An arborist's report must be submitted with any planning application for removal of native vegetation. All documentation and approvals must be attached to the original file created for the initial inspection.

Reactive maintenance is independent of actions associated with tree failure during storms and other emergency responses.

9.3 Maintenance Restrictions

Any works undertaken outside the scope of this plan will require written consent from Council. All State and local planning requirements regarding vegetation removal must be adhered to. A Planning Permit will be required for community or Council requests that fall outside of the Tree Management Plan and/or outside any exemptions. The applicant should seek a Planning Permit and any other relevant permissions at their cost via submission to Council.

9.4 Trees of Significance

There are a number of trees protected under the *Mansfield Planning Scheme - 42.02 Vegetation Protection Overlay* and *43.01 Heritage Overlay* and their associated schedules.

9.5 Removal of significant trees

A General/[Executive](#) Manager or delegated officer may authorise the removal of a tree identified as significant in order to avoid unreasonable risk or damage where a tree is assessed by a qualified arborist and confirmed hazardous.

Where a tree is identified as an immediate hazard, removal may be authorised by the Asset Inspector (with appropriate Arboriculture certification) or delegated officer and undertaken immediately.

Mansfield Shire Council **Tree Management Plan**

9.6 Managing Pests and Disease

Trees are prone to a number of pests and diseases which can compromise the health and structural integrity of a tree. Mansfield Shire has a significant number of elm, oak, plane and ash trees that are regularly monitored and treated for certain pests and diseases such as elm beetle and phytophthora.

Termites are a native species that form part of the natural environment and perform an important role in the ecosystem. Only a dozen or so are known to cause damage from the hundreds of species of termites in Australia. Mansfield Shire is a Declared Termite Area and there are building requirements in place to minimize the impact of termite damage.

In the event that it is suspected a tree may contain termites, the following with Council approval can be undertaken:

- ▶ The drilling or boring of Council trees to ascertain the presence of termites and a written report of findings.
- ▶ The chemical treatment of Council trees against termites from a licensed service provider (Council requires a written report of treatment for its records).
- ▶ The removal of Council trees that are deemed structurally compromised as a preventative measure against termites in accordance with the relevant legislation including the provisions of the planning scheme.

10. Appeal Relating to Tree Removal and Maintenance

Residents or other interested parties may appeal to Council's tree management decision on Council managed land.

If a resident insists on the removal or retention of a tree despite advice and assurances from the [Coordinator Parks and Gardens](#), or delegated officer(s), that the contrary or an alternative is more appropriate, this request must be in writing and addressed to the Manager Field Services.

Deleted: Supervisor

Following receipt of the written request the Manager Field Services shall initiate the following appeal process:

- ▶ Council's arborist will provide a brief 'objective over-view' report to the Manager Field Services that describes the arboricultural issues concerning the tree removal or retention.
- ▶ Following a site inspection the Manager Field Services will either:
 - a) base their decision upon the information contained within the report from an Arborist; or
 - b) Determine to obtain an independent report from a qualified arborist to confirm the arboricultural issues.

When considerable community concern is expressed following notification of a tree management decision, the responsible officer will refer the matter to the [Executive Manager Capital Works & Operations](#).

Deleted: General Manager Infrastructure and Planning

Tree management decisions in a road reserve, park or reserve (subject to statutory constraints) may be authorised by the Manager Field Services or Environment [and Sustainability](#) Officer where on the individual merits of the situation it is considered appropriate. These situations would involve judgment based on a combination of the related arboricultural issues combined with such factors as social, technical, economic, or environmental considerations.

In situations where the delegated officer does not support tree management decisions the delegated officer will advise the resident in writing.

[Council is committed to the active and sustainable management of trees across all land under its care. Trees are vital assets that contribute to the health, safety, character, and resilience of our communities and landscapes. Council will not consider trees for removal for the following reasons:](#)

- ▶ [Blocking views](#)
- ▶ [Dropping leaves or fruit](#)
- ▶ [Minor nuisance or aesthetic & species preference](#)

11. Tree Risk Management

11.1 Guiding Principles

A key reason for tree management is to control the risks to the community. 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 Risk Management approach is based on the three-step process:

1. Inspection of the asset
2. Identify any defects which may affect the structural integrity of the tree
3. Implement the appropriate action within the required response time

11.2 Introduction and Principles of Tree risk management

A primary issue confronting the community is how to manage an extensive tree resource, both from an ecological / landscape perspective and from a public safety standpoint of ensuring that reasonable care is taken to manage the risks associated with trees.

Council manages vast numbers of trees over a large area and within many varied landscape contexts. In most cases, the sheer quantity of trees prohibits an individual tree assessment approach. The time involved in the inspection procedure and the works generated from such inspections would be extensive and prohibitively expensive for the community.

Consequently, a broader, systematic and proactive approach to tree assessment is required that prioritises works on hazard trees based on the establishment of tree risk. A tree risk management program provides a systematic process for scheduling and inspecting trees, enables the prioritisation of works based on perceived risk, and allows judicious use of community resources.

Tree risk management within Mansfield Shire encompasses a broad range of tree related issues. This section of the Tree Management Plan addresses the overall notion of tree asset inspection and management. Varying types of risk associated with trees and [Council](#) processes for addressing these issues are included in other sections of the document, for example tree removal, tree pruning, pest infestation, tree planting and root and infrastructure conflicts.

To effectively identify and manage risks Council will:

- ▶ Use a formal risk assessment program in general conformity with the process set out in AS/NZS 31000:2009
- ▶ Use tree management practices and procedures as laid out in AS/NZS 31000:2009
- ▶ Document all Council tree incidents, actions and works and incorporate within Council's Customer Request System
- ▶ Document all tree incident reports in Council's Customer Request System and refer to delegated officer as soon as is practical
- ▶ Review by Council's Manager Field Services of all tree incidents and document proposed actions in response.
- ▶ Incorporate tree risk management issues and information into a tree asset database (under development).
- ▶ Refer all works and events likely to impact on, or be affected by, Council trees, to Council's Manager Field Services.

Mansfield Shire Council **Tree Management Plan**

11.3 Quantified Tree Risk Assessment (QTRA)

The Quantified Tree Risk Assessment system (QTRA) quantifies three components of the tree failure risk:

1. Target Evaluation
2. Impact Potential
3. Probability of failure

The product of these component probabilities is referred to as the 'Risk of Significant Harm'.

A risk of significant harm or death of 1/10,000 is considered by some authorities to be the limit of acceptable risk to the public at large. Using the 1/10,000 limit, a risk of death exceeding 1/10,000 requires remedial action to reduce the risk (unless the risk is limited to a selective individual or group - such as a tree owner, who may choose to accept a greater or lesser risk).

Additionally, the tree might offer benefits that could be set against the risk of harm. The 1/10,000 threshold is not intended to be applied with absolute rigidity but necessarily includes a degree of flexibility and an informed judgement call to be made in each situation.

Target Evaluation

A target is anything of value that could be harmed in the event of tree failure. Frequent assessment of trees and of associated risks may be essential in areas of high public access or where trees are within striking range of people or valuable property. Conversely, in locations without property and having very low public access, the survey and assessment of tree hazards may be unnecessary. Therefore, the nature of the target beneath or adjacent to a tree should dictate the level of risk assessment that is required.

Impact Potential

A small dead branch of less than 10mm diameter is unlikely to cause significant harm even in the case of direct contact with a target, whilst on average a falling branch with a diameter greater than 150mm is likely to cause harm in the event of contact with all but the most robust target.

The increased potential for injury in relation to the size of tree or branch is proportional to a degree, yet the tree or branch will reach a size where the increased severity of injury is no longer proportional to the increase in size. Similarly, most property likely to be affected by tree failure can incur only a limited level of damage before further damage is likely to be inconsequential, i.e., when it is beyond economic repair.

Probability of Failure

The Probability of Failure component of the system provides five ranges. Each range represents a range of probability of failure occurring within a year, expressed as a ratio calculated from the upper value of that range. Probability of failure will ordinarily be recorded in the tree survey schedules as a range 1 to 5 (see Table 1 below) but may be more accurately evaluated and recorded as a ratio where circumstances dictate.

Risk of Harm = Target x Impact Potential x Probability of Failure

= a risk of death exceeding 1/10,000 requires remedial action to reduce the risk

Mansfield Shire Council **Tree Management Plan**

Table 1: Target Ranges for Property, Pedestrians and Vehicles

Target Range	Property (repair or replacement costs)	Human (not in vehicles)	Vehicle Traffic (number per day)	Ranges of Value (probability of occupation or fraction of \$3,000,000)
1	Very high value \$3,000,000 – >\$300,000	Occupation: Constant – 2.5 hours/day Pedestrians & cyclists: 720/hour – 73/hour	26,000–2,700 @ 110kph 28,000–2,900 @ 100kph 31,000–3,200 @ 90kph 32,000–3,300 @ 80kph 36,000–3,700 @ 70kph 42,000–4,300 @ 60kph 47,000–4,800 @ 50kph	1/1 – >1/10
2	High value \$300,000 – >\$30,000	Occupation: 2.4 hours/day – 15 min/day Pedestrians & cyclists: 72/hour – 8/hour	2,600 – 270 @ 110kph 2,800 – 290 @ 100kph 3,100 – 320 @ 90kph 3,200 – 330 @ 80kph 3,600 – 370 @ 70kph 4,200 – 430 @ 60kph 4,700 – 480 @ 50kph	1/10 – >1/100
3	Moderate - high value \$30,000 – >\$3,000	Occupation: 14 min/day – 2 min/day Pedestrians & cyclists: 7/hour – 2/hour	260 – 27 @ 110kph 280 – 29 @ 100kph 310 – 32 @ 90kph 320 – 33 @ 80kph 360 – 37 @ 70kph 420 – 43 @ 43kph 470 – 48 @ 50kph	1/100 – >1/1,000
4	Moderate value \$3,000 – >\$300	Occupation: 1 min/day – 2 min/week Pedestrians & cyclists: 1/hour – 3/day	26 – 4 @ 110kph 28 – 4 @ 100kph 31 – 4 @ 90kph 32 – 4 @ 80kph 36 – 5 @ 70kph 42 – 5 @ 60kph 47 – 6 @ 50kph	1/1,000 – >1/10,000
5	Low value \$300 – >\$30	Occupation: 1 min/week – 1 min/month Pedestrians & cyclists: 2/day – 2/week	3 – 1 @ 110kph 3 – 1 @ 100kph 3 – 1 @ 90kph 3 – 1 @ 80kph 3 – 1 @ 70kph 4 – 1 @ 60kph 5 – 1 @ 50kph	1/10,000 – >1/100,000
6	Very low value \$30 – \$2	Occupation: <1 min/month – 0.5 min/year Pedestrians & cyclists: 1/week – 6/year	None	1/100,000 – 1/1,000,000

Mansfield Shire Council **Tree Management Plan**

Table 2: Size of Tree Part Likely to Impact Target

Impact potential range	Size of tree part likely to impact target	Impact Potential
1	> 450mm dia.	1/1 – > 1/2
2	450mm dia. – 260mm dia.	1/2 – > 1/8.6
3	250mm dia. – 110mm dia.	1/8.6 – >1/82
4	100mm dia. – 25mm dia.	1/82 – > 1/2,500

* Range 1 is based on a diameter of 600mm.

Table 3: Probability of Failure

Probability of failure range	Probability of failure percentage	Probability ratio
1	>10% - 100%	1/1 – > 1/10
2	> 1% - 10%	1/10 – > 1/100
3	> 0.1% - 1%	1/100 – > 1/1,000
4	> 0.01% - 0.1%	1/1,000 – > 1/10,000
5	> 0.001% - 0.01%	1/10,000 – > 1/100,000
6	> 0.0001% - 0.001%	1/100,000 – > 1/1,000,000
7	> 0.00001% - 0.0001%	1/1,000,000 – > 1/10,000,000

Table 4: Risk Likelihood

Frequency	Description
Certain	The tree has significant supporting root damage, removal of significant adjacent supporting tree, signs of recent tree movement, unsupported split trunk, unsupported fractured branch, hanging branch
Likely	The tree shows signs of over weighted limbs, significant disease, root damage, removal of adjacent supporting tree, supported split trunk, supported fractured branch
Probable	Mature to aged tree in declining condition, and/or structure and/or disease apparent, showing potential branch drop

Mansfield Shire Council **Tree Management Plan**

Frequency	Description
Improbable	The tree appears healthy, but is of a type or condition to potentially develop minor branch drop of live or dead wood
No Detectable Threat	The tree appears healthy, no apparent sign of disease or damage, or is of a size, species, or condition likely to pose a threat

Table 5: Risk Consequences

Severity	Description
Extreme	The tree is in an area high in people or vehicular traffic or near major assets and is of a size, species, or condition, or showing signs of significant movement, root or structural damage, or disease and where its failure is likely to cause significant injury or damage
Serious	The tree is in an area high in people or vehicular traffic or near significant assets where it does pose a threat
Moderate	The tree is in a grassed area with minimal people or vehicular traffic or near significant assets where it may pose a threat
Minor	The tree is out of the way and unlikely to be near people, or vehicular traffic or significant assets where it may pose a threat

Table 6: Risk Rating

	Certain	Likely	Probable	Improbable	No Detectable Threat
Extreme	Critical	Urgent	High	Medium	Medium
Serious	Urgent	High	Medium	Medium	Low
Moderate	High	Medium	Medium	Low	Very Low
Minor	Medium	Medium	Low	Very Low	Negligible

Mansfield Shire Council **Tree Management Plan****Table 7: Treatment Approach**

Probability of failure range	Risk	Suggested treatment approach
1 – Unacceptable Risks will not ordinarily be tolerated	Critical	Control the risk Remedial tree works required as soon as possible
2 – Unacceptable Risks will not ordinarily be tolerated	Urgent	Control the risk Remedial tree works required as soon as possible
3 – Unacceptable Risks will not ordinarily be tolerated	High	Control the risk Remedial tree works required as soon as possible
4 – Unacceptable (where imposed on others) Risks will not ordinarily be tolerated	Medium	Control the risk Review the risk Remedial tree works required
5 – Tolerable (by agreement) Risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value	Low	Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value Review the risk Remedial tree works if required
6 – Tolerable (where imposed on others) Risks are tolerable if as low as reasonably practicable	Very Low	Assess costs and benefits of risk control Control the risk only where a significant benefit might be achieved at reasonable cost Review the risk Remedial tree work if required
7 – Broadly Acceptable Risk is already as low as reasonably practicable	Negligible	No action currently required Review the risk Remedial tree works if required

Mansfield Shire Council **Tree Management Plan****11.4 Inspections and Risk Assessment for Urban Areas**

Council's urban trees are inspected and assessed on a regular basis. The frequency of inspections is determined by the location of the trees and their potential for public risk. Inspections and risk assessments are conducted according to the standardised and documented procedure. Tree inspection intervals are detailed below:

Table 8: Inspection Targets

Inspection Type	High Risk Areas	Medium Risk Areas	Low Risk Areas
Identified tree defect inspection	Annually	Every 2 years	Every 4 years
Proactive tree condition inspection	Every 2 years	Every 4 years	As required

Inspection of tree assets is to identify defects and act to reduce the risk of injury and to prevent or minimise failure and thereby lessen the physical and financial impact on the community.

All trees located on Council managed land in urban areas will be inspected by a suitably qualified arborist to determine the useful life expectancy and ongoing management of the tree based on the assessment of the following:

- ▶ Tree characteristics and health
- ▶ Genus, species, and common name
- ▶ Site conditions
- ▶ Condition/Hazard rating recorded as either: -
 - Defect with high priority.
 - Defect with medium priority.
 - Defect with low priority. or
 - No defect.
- ▶ Description of tree defects (if any) and action required.

11.5 Inspections and Risk Assessment Regime for Rural Areas

Service inspections are conducted on the road maintenance envelope (Appendix 1) as follows:

Table 9: Inspection Regime – Rural Roads

Classification of Roads	Inspection Regime
Access and Limited Access Roads	Inspected every twelve (12) months
Collector Roads	Inspected every six (6) months
Link Roads	Inspected every three (3) months

Mansfield Shire Council **Tree Management Plan**

11.6 Modes of Inspection

11.6.1 Urban Areas - Street Trees, Parks and Open Spaces Trees, Trees near Council Buildings or Structures and Reserves Trees

Council or the community (customer) may report the defects with respect to trees on public land. Inspections are performed in three modes as follows:

1. Inspection by Council for proactive maintenance (defect inspection)
2. Inspection by Council based on customer complaints or reports (reactive inspection)
3. Inspection by Council or by independent Arborist (condition inspection)

11.6.2 Rural Roads - Roadside Trees

Inspections of trees on rural roads are performed in two modes as follows:

1. Inspection by Council for proactive maintenance (defect inspection)
2. Inspection by Council based on customer complaints or reports (reactive/safety inspection)

Table 10 (below) details response times and targets for urban and rural trees.

Table 10: Maintenance Targets and Response Times

	High Risk Area	Medium Risk Area	Low Risk Area
Dangerous Tree Assessment Inspection:	Site Inspection within 24 hrs where practicable	Site Inspection within 2-3 working days	Site Inspection within 7 working days
Dangerous Tree Rectification Action (make safe):	Within 24 hrs where practicable	Within 24 hrs where practicable	Within 48 hrs where practicable
Dangerous Tree Rectification Action (clean up if required):	5 working days	5 working days	10 working days

11.7 Proactive Inspections by Risk Rating Areas

11.7.1 Urban Areas - Street Trees, Parks and Open Spaces Trees, Trees near Council Buildings or Structures and Reserves Trees

High Risk Areas Trees located in high-risk areas will be proactively inspected as per inspection targets

Medium Risk Areas Trees located in medium-risk areas will be proactively inspected as per inspection targets,

Low Risk Areas will be reactively inspected on request, within the timeframes set out in the maintenance targets and response times.

Area Risk Levels will be re-assessed every 4 years along with this Plan and will reflect any changes to volume of use/public events or other changes.

Mansfield Shire Council **Tree Management Plan**

11.7.2 Rural Roads - [Roadside Trees](#)

Trees on rural roads are inspected on a reactive basis to address road safety issues in accordance with Council's Road Management Plan, where identified hazardous trees are removed or pruned to maintain the traffic zone (height and width), which also includes canopy clearing.

Council will respond to reports from the community of dangerous trees in rural areas.

11.7.3 Mitigating Immediate Risks

Where immediate risks are identified, Council has an exemption to conduct remediation works under the following circumstances:

- ▶ DEECA: Exemptions from requiring a planning permit to remove, destroy or lop native vegetation, 2017
- ▶ DEECA Road Safety Exemption: Procedure to rely on the road safety exemption in planning schemes, 2018
- ▶ DEECA Road Safety Exemption - Written agreement for public authorities and municipal councils, Mansfield Shire Council as of 24th October 2018

12. Property Damage Caused by Trees

Council [endeavors](#) to limit potential damage to property through proactive and reactive measures outlined in this document. However, in the instance where Council has no knowledge or record of a tree being a potential risk through internal procedures or external notification, Council is unable to reimburse any costs attributed to the damage caused by a falling tree.

Deleted: endeavours

13. Community Consultation

Council has a commitment to communicate with the community and relevant stakeholders about issues that may impact them. It is important to allow the community to understand the reasons behind decisions being made by Council.

With all decisions regarding the removal of trees, in an Urban setting, there will be a minimum consultation [and notification](#) via Council's social media platforms (e.g., Facebook and Instagram). This does not include any statutory advertising requirements around native vegetation removal.

At the discretion of Council, higher levels of consultation may be required, and if so, will use the Community Engagement Framework to involve the community in the decision making process.

14. Force Majeure/Exceptional Circumstances

Council will endeavour to meet all its commitments under this Tree Management Plan, unless under exceptional circumstances. Such circumstances include but are not limited to:

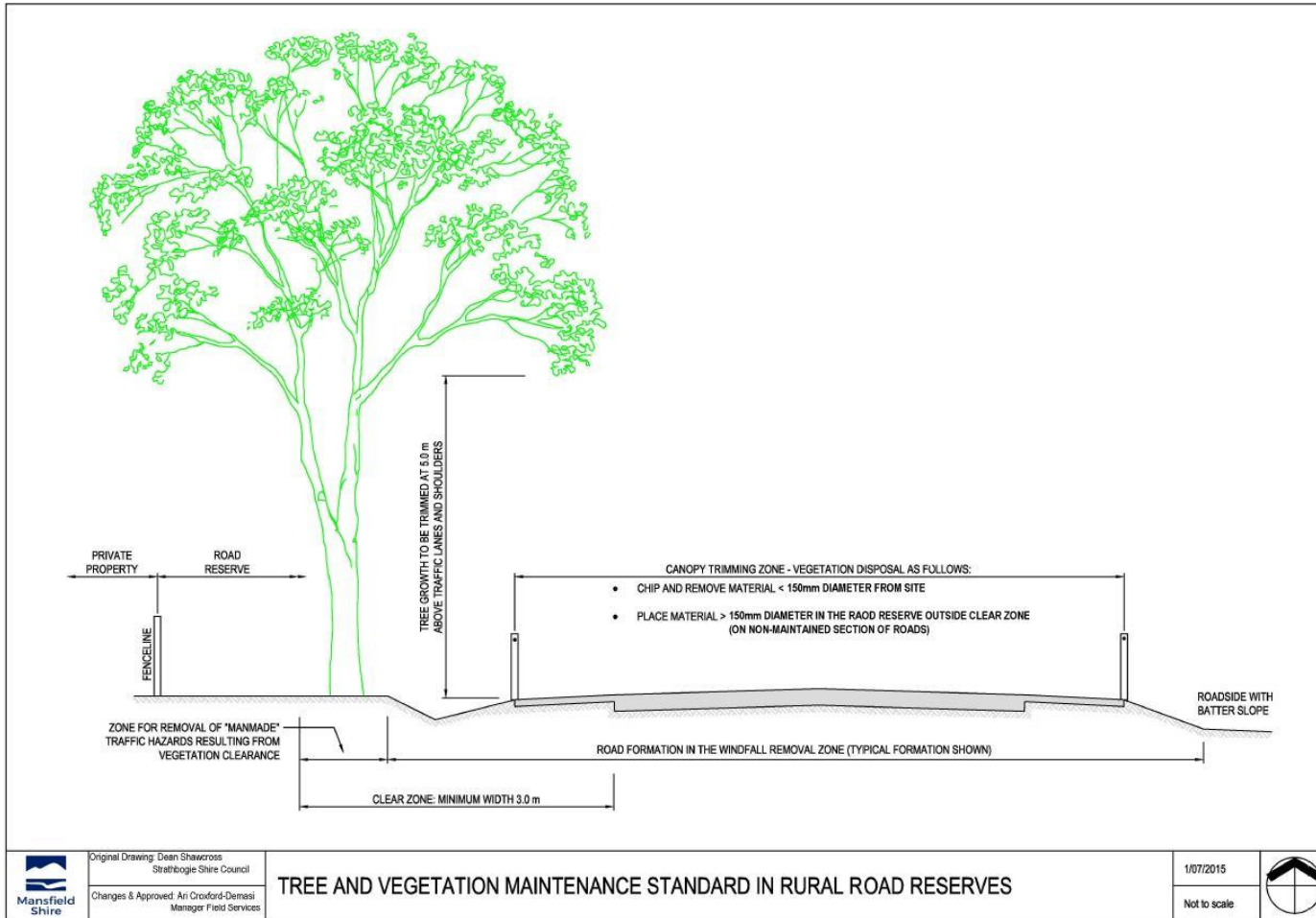
- ▶ Natural Disasters (e.g., floods, bushfire, storms).
- ▶ Significant reduction in financial ability (e.g., economic downturns).
- ▶ Prolonged labour shortage (e.g., ill staff, competitive labour market).

Where exceptional circumstances prevail and the requirements for this Tree Management Plan cannot be met, pursuant to *Section 83 of the Wrongs Act 1958*, the Chief Executive Officer (CEO) will correspond with the Council Officer in charge of this plan and inform them that some or all of the timeframes and responses in Council's Plan are to be suspended.

Once the events beyond the control of Council have been resolved, or if the events have partly abated, Council's CEO will correspond with the Council Officer responsible for this Tree Management Plan and inform them which parts of Council's Plan are to be re-activated and when this is to occur.

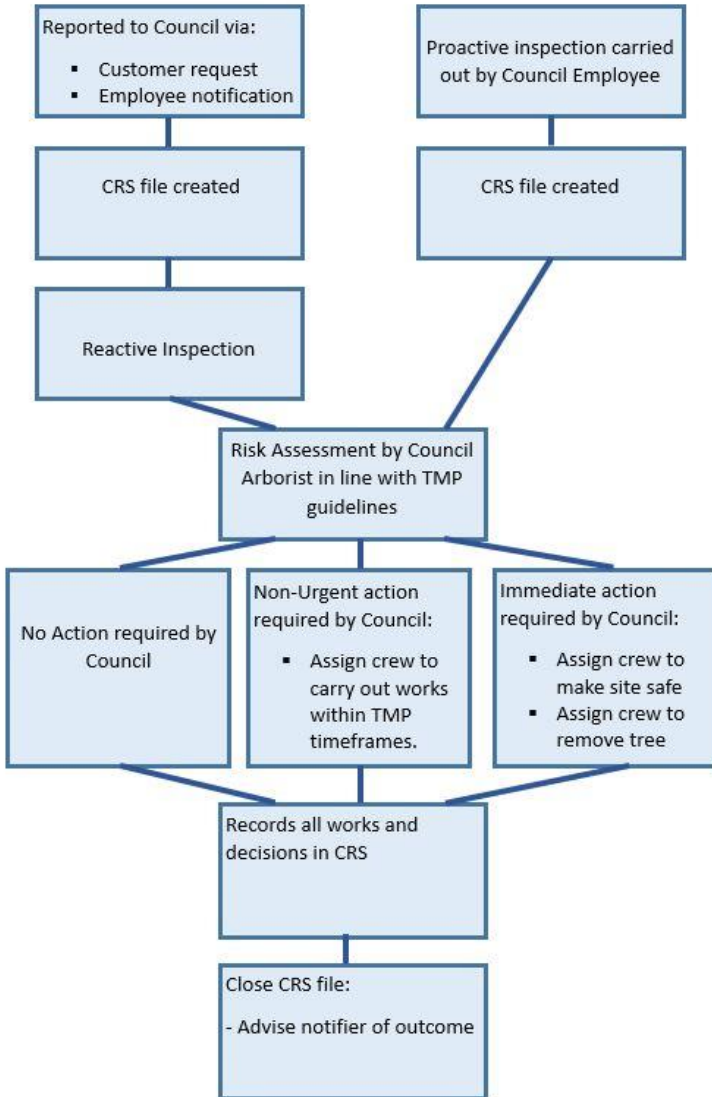
Mansfield Shire Council Tree Management Plan

Appendix 1: Road Maintenance Envelope



Appendix 2: Workflow Chart (Customer Request System)

**Please note "CRS" refers to current Customer Request System being used by Council*

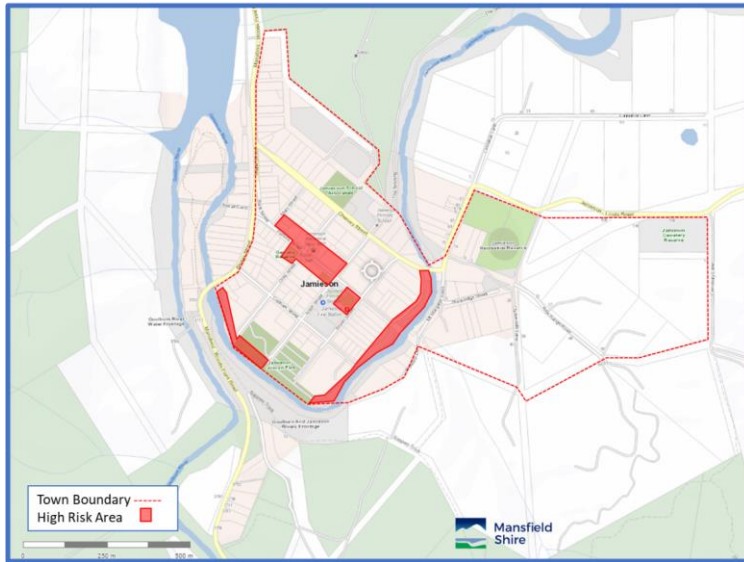


Appendix 3: Maps of Town Boundaries and High Risk Areas

Goughs Bay



Jamieson



Mansfield Shire Council **Tree Management Plan**

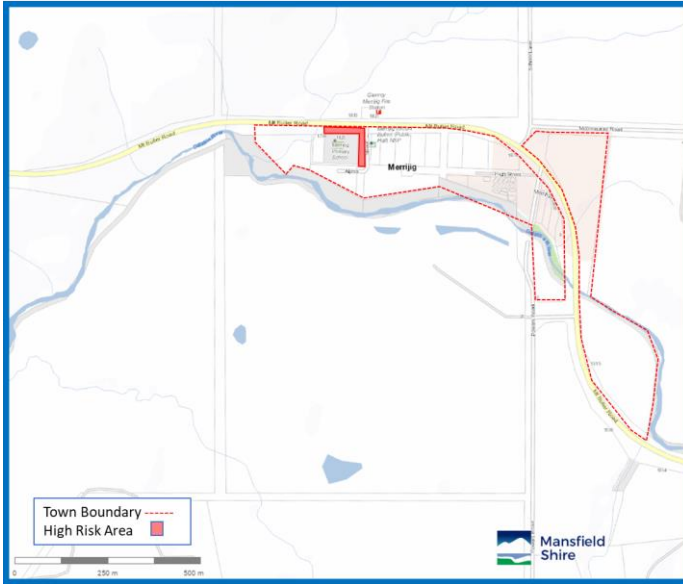
Bonnie Doon



Merton



Merrijig



Mansfield

