Procedure

Tree Management Procedure

Corporate Plan reference:	3.2 Well-managed and maintained open space, waterways and foreshore assets 3.2.5 Develop a Tree and Native Vegetation Policy to enhance the region's urban forest and implement a street tree planting program	
Approved by:	<Insert signature>	<Insert date>
Procedure owner and branch:	Manager Parks & Gardens	
Reference number: *delete line if not applicable*	<eg. Quality management document control number>	

Purpose

- To affirm council's commitment to the management of trees on council controlled land.
- To provide consistent and transparent practices and standards for the *Tree & Native Vegetation Management Policy (Council controlled land)*

Scope

This procedure is applicable to trees on council controlled land under the care and control of Parks and Gardens.

Other branches may use elements of this procedure where it supports consistency and clarity in council operational procedures e.g. unauthorised interference with vegetation procedure.

References

Fact Sheet – Natural Justice

Sunshine Coast Council Strategic Policy Tree & Native Vegetation Management (Council controlled land)

Sunshine Coast Council Complaints Management Process Policy

Sunshine Coast Council Compliance and Enforcement Policy 2009

Sunshine Coast Council Asset Responsibility Matrix

Sunshine Coast Council Centre Design Palettes (for primary urban streetscapes)

Sunshine Coast Council Open Space Landscape Infrastructure Manual (LIM) http://www.sunshinecoast.qld.gov.au/sitePage.cfm?code=lim

Sunshine Coast Council Local Government Area Pest Management Plan

Sunchine Coast Counncil Guidelines for Rural Road Reserves

Local Law No. 1 (Administration) 2011

Local Law No. 4 (Local Government Controlled Areas, Facilities, Infrastructure and Roads) 2011

AS 4373-2007 Pruning of amenity trees

AS 4970-2009 Protection of trees on development sites

Land Protection (Pest and Stock Route Management) Act 2002

Environmental Protection and Biodiversity Conservation Act 1999

Nature Conservation Act 1992

Queensland Heritage Act 1992

Vegetation Management Act 1999

South East Queensland Ecological Restoration Framework

South East Queensland Natural Resource Management Plan 2009-2013

Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016

IACA 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org,au

Australian ICOMOS (1999) The Burra Charter - The Australian ICOMOS Charter for Places of Cultural Significance International Council of Monuments and Sites. www.icomos.org/australia

National Trust of Australia (Vic) (2004) Classification report – Signficant Trees.

Clark, R. (2003) Specifying Trees: a guide to assessment of tree quality. 2nd ed. NATSPEC/construction Information, Sydney.

Moore, G M (1991) Amenity Tree Evaluation: A Revised Method. http://www.arborcad.com/wp- content/uploads/2011/08/Arborcad-Revised-Burnley-Method-of-Tree-Valuation.pdf

Definitions

Conservation value	for the purpose of this procedure, rural road reserve conservation values are defined in line with the SCC Guidelines for Rural Road Reserves
Declared pest plant	plants of a species that have, or could have serious economic, environmental or social impacts and are targeted for control under the *Land Protection (Pest and Stock Route Management) Act 2002*.

Environmentally strategic locations	locations consistent with the Sunshine Coast Biodiversity Strategy 2010-2020 strategic locations key biodiversity investment areas.
Hazard	a source or a situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment, or a combination of these.
Habitat Tree	a living or dead tree that provides significant habitat for wildlife.
Interference in relation to trees or vegetation	to engage in any activity damaging or leading to the death, disfigurement or mutilation of vegetation (as per Local Law No. 4)
Native Vegetation	in relation to this procedure, native vegetation is considered to be any local indigenous plant growing in its natural state whether self-sown or planted, but not including formal landscaped areas or gardens.
Offset	planting undertaken to counterbalance the impact caused by a loss of trees or native vegetation from a particular location and/or the landscape. **Environmental offsets are established at a minimum ratio of 1 for 1** (predominantly stands of native vegetation managed by Environmental Operations Branch, where all types and layers of vegetation within the proposed affected area require offsetting i.e from ground covers through to trees). **Amenity offsets are established in accordance with the Tree Retention Value – refer to Appendix B** (predominantly a tree or stand of trees in a landscaped area such as a park or road reserve, managed by Parks and Gardens Branch).
Nuisance	an unreasonable interference with another person's right to the use and enjoyment of their property.
Risk	the likelihood that a harmful consequence (death, injury or illness) might result when exposed to a hazard. Risk assessment will consider factors such as the level of use of the areas surrounding tree and the proximity of roads, buildings and other structures.
Tree	long lived woody perennial plant with one or relatively few main stems or trunks, usually greater than 5 metres in height on maturity.
Threatened species	native flora and fauna species listed as Rare, Vulnerable or Near Threatened under the *Qld Nature Conservation Act 1992* or a species listed under the federal *Environment Protection and Biodiversity Conservation Act 1999* or on the International Union for Conservation of Nature Red List of Threatened Species.
Significant Tree	(or stand of trees) are trees with aesthetic, historic, scientific or social value for past, present and future generations (Australian ICOMOS,1999).

Responsibility

The Manager, Parks and Gardens Branch is responsible for the development, implementation, review and communication of this procedure.

Procedure Detail

The following procedure will be used to ensure that species selection fits the character of the locality, trees are planted, protected, maintained, removed and replaced in a sustainable manner and that trees are primarily managed to mitigate risk.

The procedure incorporates fundamental tree management activities under the following core categories:

- Tree inspection and maintenance
- Tree removal and offsets
- Tree planting
- New works and protection of existing trees
- Unauthorised interference with vegetation

1. Tree Inspection and Maintenance

Requests may be received in regards to tree condition (health and structure), potential risks and emergencies, nuisance, weed management or conflicts with existing or future infrastructure. Requests are prioritised and assessed in accordance with council's risk management framework. Inspections and maintenance are carried out by qualified council staff or council appointed contractor/s. Tree assessments, whether risk or retention value based, comprise the following key steps;

Assessment

- Recommendation
- Decision
- Notification
- Action

1.1. Tree Inspections

Trees are inspected and assessed with consideration to tree condition (health and structure), estimated useful life expectancy and hazard potential, with priority placed on trees deemed to carry the highest likelihood and consequence of risk. Visual Tree Assessments (VTAs) are undertaken by either council's Arboricultural Unit or council appointed contractor and are carried out on both a proactive and reactive basis in order to identify and manage trees with potential hazards – refer to Appendix A - Risk Rating Methodology for Trees.

It should be recognised that the professional assessment is merely a snapshot of the subject tree's condition and estimated risk at a given point of time and that environmental conditions or other factors may alter the condition of the assessed tree/s within a relatively short timeframe. Where the initial VTA is inconclusive, a second opinion may be obtained from a more senior member of the Arboricultural Unit or council appointed consulting arborist.

Approximate timeframes for responding to non-urgent tree matters

Activities	Dec-Feb	March-Nov
Customer requests Customer requests	6-8 weeks	2-3 weeks
Internal requests (capital projects etc.) inspectionsIn	1 week	1 week
Utility service provider requests (Energex etc.)	1 week	1 week

1.1.1. Proactive Tree Inspections

Council will conduct routine proactive inspections of trees in high visitation or high target areas such as CBD and civic precincts, regional and foreshore parks, and playground areas.

Significant trees and tree species with large fruit or nuts located in high target areas, or species that are vulnerable to health threats may also be proactively inspected at regular intervals.

1.1.2. Reactive Tree Inspections

Reactive tree inspections and associated maintenance is conducted in response to both internal and external customer requests in accordance with agreed service levels. A Visual Tree Assessment (VTA) is undertaken with any necessary maintenance works being programmed as a result of the assessment and customers advised of the outcome.

1.2. Tree Maintenance

Maintenance is determined in accordance with the recommendations of the Visual Tree Assessment and will be carried out in accordance with AS 4373 Pruning of amenity trees. The level of intervention will depend on the species, location, significance and function of the tree, with higher levels of intervention expected for trees growing in high use areas.

1.2.1. Tree Pruning

Pruning may help to maintain an appropriate form and function, reduce risk or keep a tree in good condition. Pruning may be conducted to:

- Enhance the health and structure of a specimen and/or reduce failure risk
- Meet specified clearance requirements for road, footpath and overhead services
- Meet traffic visibility requirements
- Avoid future conflict with infrastructure such as power lines, through formative and directional pruning of young trees

Pruning/maintenance will not be conducted to:

- Minimise leaf, twig or fruit drop, unless part of an existing proactive risk management maintenance program
- Improve the visual appearance and/or shape of a tree
- Minimise limbs overhanging private property, unless deemed hazardous
- Reduce the overall size of a tree
- Discourage native wildlife habitation or passage through a tree or stand of trees
- Reduce shading of property or solar installations
- Create views, with the exception of in situ Cotton Trees (*Hibiscus tiliaceous*) or other suckering species which may be considered for pruning to maintain existing views

Trees in situ prior to solar panels being installed may be pruned to allow additional light to reach panels but not at the expense of the structural integrity of the tree. Such requests will be considered on a case-by-case basis.

Hollowed limbs need to be carefully assessed for habitat potential by council's arboricultural staff or a wildlife spotter catcher prior to commencement of works. Pruning of habitat trees will be minimised wherever possible.

1.2.2. Root Management

Tree roots are opportunistic rather than destructive by nature. Protection of tree root systems is essential for the long term health and stability of trees. Structural damage to the root system of a tree or alteration to the surrounding soil conditions, for example grade changes and machine compaction, can cause instability in the short-term or impact on a trees health in the longer term and potentially reduce a tree's useful life expectancy.

Any intervention with tree root systems will be kept to an absolute minimum and will only be considered as a last resort. All tree root management works are to be undertaken in accordance with guidelines presented in AS 4970-2009 Protection of trees on development sites.

Selective root pruning may be undertaken in exceptional circumstances, however no works that have a significant probability of resulting in major avenues for decay entry (i.e. shaving surface roots) or that may cause the future instability or long-term tree decline (such as the pruning of large diameter roots within a tree's Critical Root Zone (CRZ) are to be undertaken. Open trenching is also actively discouraged within the Tree Protection Zone (TPZ) of a specimen.

In order to prevent tree root entry to pipes, residents should ensure that their pipes are sealed and joined properly when laid; that any cracked or damaged terracotta pipes are upgraded with PVC or that cracked or damaged pipes are sleeved with synthetic liners to prevent tree root entry. Tree root barriers or root deflectors will generally not be used to prevent the risk of tree root damage to private property.

1.3. Habitat Trees and Threatened Species

Habitat trees can be living or dead specimens that provide significant habitat for wildlife. Dead trees with numerous hollows that provide habitat for wildlife should be retained where possible as habitat trees. The habitat value and/or potential of hazardous trees will be considered during visual tree assessments, and where appropriate, endeavors made to retain any such habitat trees.

Where necessary, exclusion zones may be created under habitat trees to exclude the fall zone from public access, with signage indicating that the tree has been retained as a habitat tree. Alternatively pruning may be carried out to effectively manage the risk while allowing ecologically important trees to remain standing.

Where trees have been identified as threatened species or species containing significant habitat for wildlife, tree removal will be undertaken only as a last resort. Where tree removal is considered unavoidable, the Department of Environment and Heritage Protection (EHP) permits and approval requirements must be investigated and met in accordance with the relative legislation - Nature Conservation Act 1992 and/or Vegetation Management Act 1999.

A wildlife spotter/catcher will be required to assess these trees prior to the commencement of works and provide a report to the Senior Arborist regarding relocation of any significant wildlife communities and breeding habitat for threatened species and/or be on site at the time of works to ensure any disturbed wildlife is unharmed and relocated/re-homed. Specific permits are required for interference with threatened species breeding habitat. Advice should be sought from council's Senior Environment Officer in relation to this.

In situations where trees have been identified as an important food source, such as Koala or Glossy Black Cockatoo feed trees for example, every effort must be made to minimize the loss of vegetation from the location.

Tree works or action aimed at discouraging the passage through, or presence of native wildlife in trees will not be undertaken unless required for the safety of wildlife as assessed by an appropriately qualified person and relative permits have been sought and issued.

1.4. Significant Trees

Significant Trees are trees that have exceptional value in terms of their contribution to the environment and may be classed as significant due to their historic, aesthetic, scientific/environmental or cultural attributes. These trees may require a more intensive or specific

inspection and maintenance regime in order to provide a greater level of protection and to maximise the longevity, health and vigour of the tree/s.

Significant trees (or groups of trees) shall be identified following principles found in The Australian ICOMOS Charter for Places of Cultural Significance (The Burra Charter) and Queensland Heritage Act 1992.

Categories of cultural significance are to be based on those developed by the National Trust of Australia (Vic). The following criteria will be used to determine eligibility, which may include a tree or stand of trees:

- That is of horticultural or genetic value and could be an important source of propagating stock, including species that are particularly resistant to disease or exposure
- That occurs in a unique location or context and so provides a contribution to the landscape, including remnant native vegetation, important land marks and trees which form part of a historic garden, park or town
- That is of a species or variety that is rare or a very localised distribution
- That is particularly old or venerable
- That is outstanding for its large height, trunk circumference or canopy spread
- Of outstanding aesthetic significance
- That has outstanding value as habitat for native wildlife
- That exhibits a curious growth form or physical feature such as abnormal outgrowths, natural fusion of branches or severe lightning damage
- That commemorates a particular occasion or having association with an important historical event
- That is associated with aboriginal cultural activities
- That is an outstanding example of the species

For a tree to be considered for inclusion on council's Significant Tree Register (STR), it must meet one or more of the above categories. The listing of a tree on the STR is acknowledgement of an obligation upon council that it should be retained and protected into the longer term. The aim of protection is to prevent or minimise impacts that may be detrimental to the individual or group of trees' long term health and/or stability. Any alteration to a significant tree's physical environment which may endanger the tree's health must be avoided.

Significant trees should be identified during the planning phase of any works or development. The use of best practice techniques during the design phase should assist to mitigate and design out risk to trees (significant or otherwise) during construction activities

Design modification or re-location of structures should be considered to accommodate the setbacks as prescribed by AS 4970-2009 Protection of trees on development sites. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone of a significant tree.

Significant trees will be valued according to the revised Burnley Method of Amenity Tree Valuation (Moore 1991). This value shall be used to determine bonds for significant trees, where there is a risk of damage due to adjacent construction works. The value will also be used in negotiations relating to retention and protection of these trees.

The removal of significant tree is to be avoided unless it forms part of a tree management or succession plan approved by the Manager, Parks and Gardens.

2. Tree Removal and Offsets

Council has an obligation to manage and preserve trees and native vegetation on council controlled land in an efficient, sustainable and safe manner, while preserving the unique character of the region for current and future generations. Retention of healthy, structurally sound trees is desirable; however in some cases tree retention may not be feasible due to the location or species of tree.

All practicable options for resolving issues with trees should be exhausted before tree removal is considered. Tree removals may require state permits and any tree removal will be offset by replacement tree plantings, preferably in the immediate or surrounding local area, to compensate for the loss of tree/s. Every effort should be made to recycle millable logs.

2.1. Tree Removal

Tree removal is a last resort option and primarily undertaken for reasons of public safety, protection of capital assets (where significant conflicts exist) or in the interest of ~~significant~~ community benefit. Tree removal may be considered in the following instances:

- The tree is dead, in irreversible decline or structurally unsound
- The tree is deemed a traffic hazard which cannot be corrected by pruning
- The tree poses a hazard to public safety which cannot be mitigated without adverse effects to the tree
- The tree has been damaged resulting in compromised structural integrity and/or long term viability
- The tree has interfered with above or underground essential services infrastructure, where the infrastructure or tree cannot be modified without detrimental effects on the tree
- The tree is to be removed to allow for the inclusion of infrastructure which provides significant community benefit, where all other options have been exhausted. Such removals will require offset planting, within the immediate or local area as appropriate
- The tree has been deemed as low value in accordance with council's Tree Retention Value – Priority Matrix
- The tree has damaged infrastructure and the cost of ongoing repair is greater than the tree's worth
- The tree has been deemed a nuisance by the Manager Parks & Gardens
- The tree is a declared pest plant
- The tree is a juvenile tree that has self seeded within an existing viewshed

The following do not constitute sufficient reason for the removal of trees:

- Leaf, bark, twig or fruit drop
- The tree species is disliked
- Minor allergies or health problems are being experienced such as hay fever, sinus etc.
- The tree is in the path of a non-essential driveway crossover
- The tree is shading private property or solar installations
- The tree is blocking the view to an advertising billboard, where the tree pre-existed the billboard

2.2. Assessment criteria for tree removals

Where non-hazardous trees are to be considered for removal, trees will be assessed with consideration to their retention value as determined by the Tree Retention Value – Priority Matrix (Institute of Australian Consulting Arborists) (Appendix B). This system utilises qualitative criteria based on the estimated useful life expectancy AND landscape significance of a tree to determine whether its retention value is high, medium or low.

The landscape significance of trees will be assessed in accordance with the following criteria:

- Tree condition, health and structural integrity
- Amenity and visual prominence (scale, size, character, form and landscape impact)
- Remnant/ locally native tree

- Presence of other trees
- Habitat tree, threatened species or part of an endangered community ecosystem
- Future growth potential and site specific constraints
- Environmental or declared pest plant

The estimated useful life expectancy of a tree will be assessed by a qualified arborist.

Trees on council controlled land must only be removed by council or its appointed contractor or with the relevant permit issued by local (council) or state government. A Planting, Clearing or Damaging Vegetation in a Local Government Controlled Area Permit is for external use and applies predominately to the planting or removal of introduced (not naturally occurring) gardens or street trees on council controlled road reserves where the specific vegetation has been deemed low value.

Significant trees and high retention value trees are considered the most critical for preservation and protection. Trees which form part of a Regional Ecosystem “of concern” or “endangered” vegetation community and/or areas which support threatened species must not be removed without appropriate state and federal government approval, under the terms of the NCA and EPBC Acts.

2.3. Nuisance Trees

Council will adopt a ‘good neighbour’ approach to managing trees near property boundaries by undertaking tree maintenance works that address genuine nuisance to the adjacent property owner where possible. Shading of property or solar installations or natural processes such as dropping ofleaves, bark, twigs or fruit are not considered grounds for nuisance. Unseasonal weather conditions such as excessive dry periods may also cause trees to shed higher quantities of leaves during times of stress. Such factors will be taken into consideration during tree assessment.

Under special circumstances, health issues may be given due consideration in assessing customer requests.

2.4. Removal of Eucalypts on Nature Strips

Many Eucalypt species are locally native trees and play a critical role in providing food and/or habitat for wildlife. Many of which are also koala food trees, see below:

Koala Food Trees

Botanical Name	**Common Name**
Acacia aulacocarpa	Hickory Wattle
Acacia melanoxylon	Blackwood
Callitris columellaris	Bribie Island Pine
Corymbia maculata	Spotted Gum
Corymbia gummifera	Red Bloodwood
Corymbia intermdia	Pink Bloodwood
Corymbia tessellaris	Moreton Bay Ash
Eucalyptus acmenioides	White Mahogany
Eucalyptus cloeziana	Gympie Messmate
Eucalyptus crebra	Narrow-leaved Ironbark
Eucalyptus grandis	Flooded Gum
Eucalyptus microcorys	Tallow wood
Eucalyptus pilularis	Blackbutt
Eucalyptus propinqua	Grey Gum
Eucalyptus racemosa	Scribbly Gum
Eucalyptus resinifera	Red Mahogany (Red Stringybark)
Eucalyptus robusta	Swamp Mahogany
Eucalyptus seeana	Narrow Leaved Red Gum
Eucalyptus siderophloia	Grey Ironbark

Whilst the issues associated with perceived risk of Eucalypts in an urban setting are understood, Eucalypts are also an important species that contribute significantly to preserving the unique character of the region.

It is acknowledged that large Eucalypts occurring in isolation or fragmented stands within close proximity to residences may constitute a nuisance or perceived risk.

Where a request for the removal of such a tree has been received, and the specimen does not meet the standard risk based tree removal criteria, it may be treated as a nuisance tree if the following criteria can be met:

- The tree does not form part of a shared canopy or stand that relies on group protection;
- The tree is 10m or greater in height;
- There is potential for the tree to cause damage to nearby residences in the unlikely event of whole tree or major limb failure; and
- All alternative options to mitigate the nuisance or perceived risk have been exhausted.

If a complainant insists on a tree's removal and it meets the above criteria the request may be referred to the Manager, Parks and Gardens to make the final determination. Councilor and community consultation will form a part of the Branch Manager's decision making process. Community consultation will be required to determine the level of support for the removal of the tree, as well as the off-set planting strategy devised for the street or local area.

Any Eucalypt removed must be offset in accordance with this procedure. Refer to Requests to Remove Eucalypts Flowchart

2.5. Tree Replacement / Offsets

Where any tree is removed, whether deemed as hazardous or non-hazardous, appropriate offsets must be planted in order to maintain a no net loss. A no net loss is achieved by undertaking compensatory planting as set out below in order to replace tree/s removed over a given period of time.

2.5.1. Replacement of Hazardous Trees

Where tree/s satisfy the removal criteria in accordance with council's Risk Rating Methodology for Trees (Appendix A), replacement tree/s will be provided at a minimum ratio of one to one, based on 25L stock or greater. It is preferable that the replacement tree is returned to the same location and that it represents the same species as that removed or a more appropriate species for the location.

2.5.2. Replacement/Offsets for Non Hazardous Trees

Trees that require removal for reasons other than declining health or hazard potential are required to be offset in a manner that compensates council and the community for the actual loss of the tree according to its value. Where there is a requirement for the removal of a non-hazardous tree (that does not meet any of the risk based removal criteria) to allow for approved works or other exceptional circumstances and all other design, construction and relocation options have been exhausted, the following applies:

- The tree must be offset according to whether it has been rated as Low, Medium or High Retention Value. If the tree has been classified as High Retention Value, replacement tree planting must achieve a no net canopy area loss within a timeframe of either three or five years of tree removal, depending on where the tree grows (high or low profile location), how difficult re-establishment of trees may be at the specific site and whether the tree is a feature/stand-alone specimen as opposed to growing as a part of a group or stand of trees.
- All costs associated with the original tree/s removal, new tree replacement and establishment are to be met by the person/company/branch of council who requested the tree removal.
- The replacement tree should be planted as close as possible to the location of the original

tree or in the local area if this is not possible.

2.5.3. Determining the retention value of a tree

Criteria such as condition, form, type and the tree's prominence in the landscape are used to determine the tree's Landscape Significance. Three or more criteria in the same Landscape Significance category (High, Medium or Low Landscape Significance) are required for a tree to be classified in that group. Refer to Appendix A.

The Landscape Significance value is then combined with the Estimated Useful Life Expectancy of a tree to determine its Retention Value in accordance with the Tree Retention Value – Priority Matrix (Appendix B).

2.5.4. Determining tree offsets

The Retention Value of a tree dictates the offset method that should be applied as given below:

Tree Retention Value	Offset Method
Low	One for one (1:1)
Medium	Three for one (3:1)
High	No Net Canopy Loss Method (refer Appendix C) • 3 Year replacement timeframe (high profile locations, single specimens, difficult sites for tree establishment) • 5 Year replacement timeframe (low profile sites, trees growing in groups, sites with no tree establishment constraints identified)
Significant Trees	Revised Burnley Method

Offsets may include:

- Direct planting of replacement trees in the same location;
- Planting in a nearby location such as a streetscape or park (where practicality does not permit the replacement planting to occur in the original location);
- The provision of funds to purchase, plant and maintain replacement trees with the dollar figure per tree to be based on current industry prices; or
- The provision of funds in line with the monetary value of the tree (for example Significant Trees) to invest in tree planting or projects that may enhance the health and structure of existing trees of value.

The cost of tree removal (including stump grinding) and offset planting including an appropriate period of establishment maintenance to facilitate private works shall be borne by the person/party responsible for carrying out the works.

2.6. Dispute Resolution / Decision Review

There may be occasions where a resident or group of residents appeal a recommendation or decision made by council's arboricultural assessment officers. Where objections arise or a request for an outcome that is outside the policy and procedure is received, such matters may be reassessed by the Senior Arborist.

An external arborist may also be engaged by council to provide an independent report, with the final decision made by the Manager, Park and Gardens. Any further escalation may be referred to the CEO for further consideration or referral to council.

Where an assessment is inconclusive or challenged a further opinion may be sought – refer to Tree Assessment Decision Flowchart. For any decision where judgment precludes technical

advice, the outcome should be based on the interests of the wider community over the individual resident.

Before selective tree removal is resolved by council, the standard procedures for decision review must be followed to ensure that council's opposition to or support has been fully appraised.

3. Tree Planting

New trees should be planted with consideration to the local conditions and infrastructure present as well as the character of the locality/streetscape with a focus on the right tree for the right location. Existing view lines, particularly in relation to foreshore areas, should be a consideration when selecting tree species for new plantings. Species selection is to ensure that watering will not be required beyond the establishment period in normal circumstances (up to two years). Species selection and planting techniques should be in accordance with council standards contained within the Sunshine Coast Council Open Space Landscape Infrastructure Manual and the Centre Design Palettes for primary urban streetscapes. The Sunshine Coast Council Planning Scheme requires that preference is given to locally native trees when selecting species for planting to reinforce the character of the Sunshine Coast Region.

It is however recognised that non-native species may also form part of the landscape character of the region and in certain situations may be used to replace or compliment existing plantings of the same species.

Species selected should consider the mature dimensions of the canopy, trunk diameter and root development requirements and be based on the following:

- Growth performance and available space
- Suitability to the site conditions and purpose of the planting
- Proximity to existing infrastructure and underground services
- Ongoing safety or visibility for pedestrians or motorists
- Potential to contribute to the overall streetscape and compliment the character of the area

New stock should be selected in accordance with NATSPEC guidelines for tree stock selection.

Streetscape upgrades and other development projects should take all opportunities to increase the number of street trees. Master plans should maximise tree planting opportunities and provide direction for future plantings.

Where trees in high profile areas are nearing the end of their useful lives, successional plantings may be carried out adjacent to the declining trees to ensure continued amenity is provided while the replacement trees are establishing.

3.1. Street Tree Planting

Street tree planting should aim to establish green corridors along arterial roads and major entry roads to CBD areas and promote social and economic activity within major hubs and centres by providing shade and amenity for congregation. Street trees should enhance the character and quality of local streetscapes while performing the essential functions of shading and cooling paths, roads and residential properties; reducing run off and filtering storm water, purifying the air, storing carbon and producing oxygen and providing food and shelter for local wildlife.

Requests for new street trees will be considered in relation to existing street tree planting proposals. Opportunities may arise to reinforce existing street tree planting by infilling where possible and replacing poor specimens.

Community participation in street tree planting programs will be encouraged to promote ongoing stewardship and assist with the watering of new street trees during the establishment period.

3.2. Park Tree Planting

Tree planting within parks should promote shade and amenity at park user areas such as picnic nodes, playgrounds, spectator areas, car parks and along pathways. Placement and grouping of trees should aim to minimise maintenance while enhancing and protecting wildlife habitats. Design principles should aim to promote the planting of trees that will establish or reinforce the presence of a tree canopy within a park.

Community participation in park planting programs will be encouraged to promote ongoing stewardship.

4. Capital Works Projects and Tree Protection

In situations where infrastructure upgrades or capital improvement projects conflict with existing trees, successful tree preservation will depend on the cooperation of those involved in the design and delivery of these projects. Most tree injuries sustained on construction sites are root related, which can cause a decline in the health of a tree over time or where the damage is severe, compromise a tree's stability.

Proactive measures should be taken to ensure that the needs of existing trees are considered at the front end of projects (specifically during the planning and design phases). This should assist to mitigate and design out risks to existing trees via reconfiguration or the use of root-sensitive treatments and methods, and promote greater rates of tree retention and survival post construction.

Formal tree protection measures in accordance with AS 4970-2009 Protection of trees on development sites should be put in place for all construction projects where existing trees occur within or adjacent to the development site. Council officers overseeing such construction projects are responsible for adhering to the tree protection management process as outlined in the standard and the Sunshine Coast Council Open Space Landscape Infrastructure Manual.

Where conflicts cannot be resolved through redesign and tree/s cannot be adequately protected from construction impacts and must be removed, tree offsets shall be funded as a part of the infrastructure project.

Residents will be encouraged through Fact Sheets and customer service scripting to contact council prior to conducting any works on private property that may impact trees on adjacent council controlled land.

5. Unauthorised Interference with Vegetation

Council's Local Laws require residents or property owners to obtain a permit prior to planting, clearing or damaging vegetation (including trees) in a local government controlled area or road reserve.

5.1. Unauthorised Planting

Residents must have a permit prior to planting trees or vegetation on council controlled land. It is however preferred that any new tree plantings are undertaken by council or council appointed contractors. Requests for new tree plantings are to be referred to council's Arboricultural Unit for consideration in the street tree planting program.

Where a resident has planted trees on council controlled land, without council's approval and a resolution cannot be achieved between council and the resident regarding the concerns council may have with the planting, the matter may be referred to Community Response for enforcement action.

The resident may be required to remove or relocate the tree within their own property. Alternatively council may remove such plantings and the resident or property owner may be liable for costs related to this action.

5.2. Damage or Interference

Interference with trees or vegetation is defined in *Local Law No. 4 (Local Government Controlled Areas, Facilities, Infrastructure and Roads) 2011, section 12 (Protection of vegetation).*

It is acknowledged that the unauthorised interference with vegetation in a local government controlled area or road occurs throughout the region. The reasons are varied and could include aesthetic or commercial gain, lack of knowledge of process by the community or a neighbour conflict issue. This procedure supports the use of the Compliance and Enforcement Policy to deal with unauthorised interference with trees or vegetation.

Where appropriate the following actions could apply in the first instance:

- Voluntary site rehabilitation by adjacent residents
- Cooperative assistance by community to rehabilitate the site
- Provision of information and advice such as erection of signage, delivery of workshops or officer site visits educating the community on responsibilities associated with vegetation management on council controlled land.

Where a matter cannot be resolved by Parks and Gardens without enforcement or where the scale of the damage is deemed significant by the Manager, Parks & Gardens, the matter will be referred to Community Response with a recommendation for compliance action. Council may recover costs and compensation for the replacement, loss of amenity value and remedial works required as a result of unlawful actions. Public exclusion from the site and/or a protective screen may be installed to protect new plantings from disturbances such as winds or trampling, especially along foreshore areas. The screen will remain in place until such time that the new tree has grown to the size of the original tree that was removed.

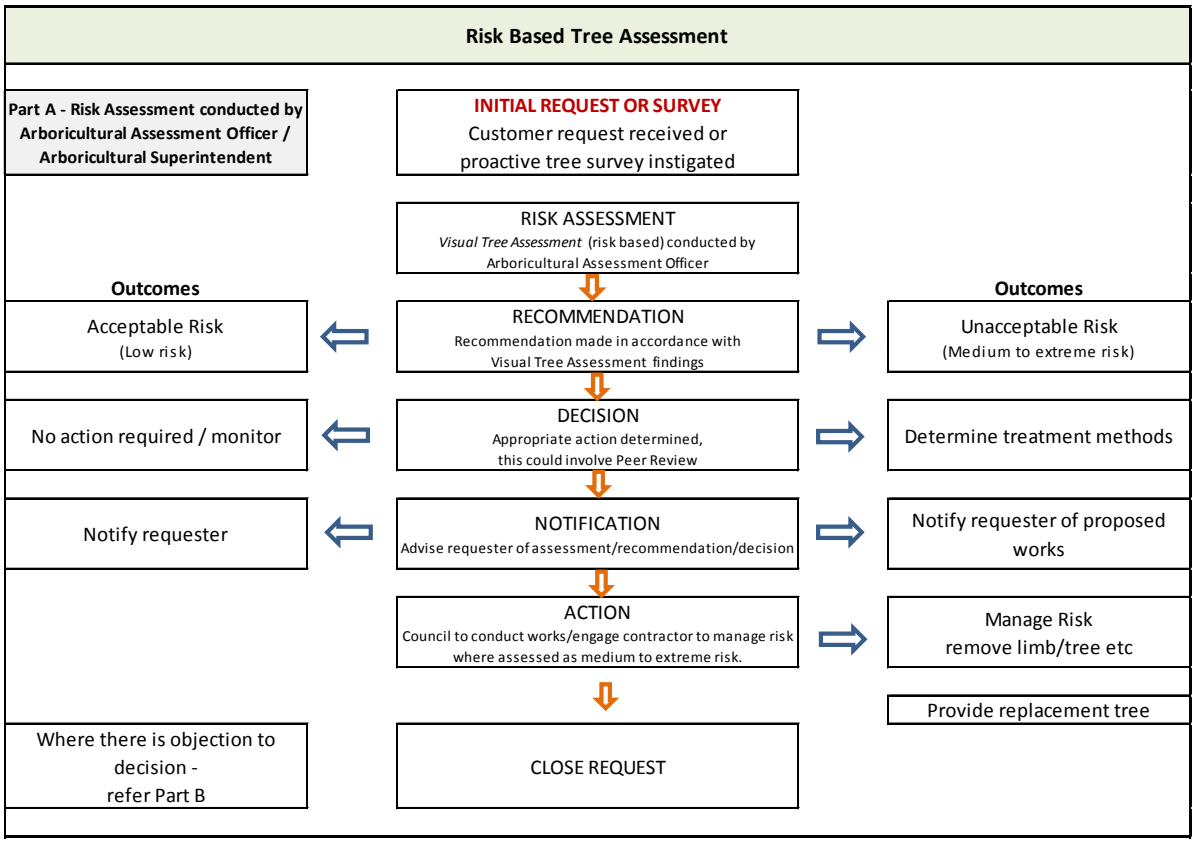
Any action (compliance or other) in relation to such matters will give consideration to natural justice and procedural fairness in accordance with council's Compliance and Enforcement Policy.

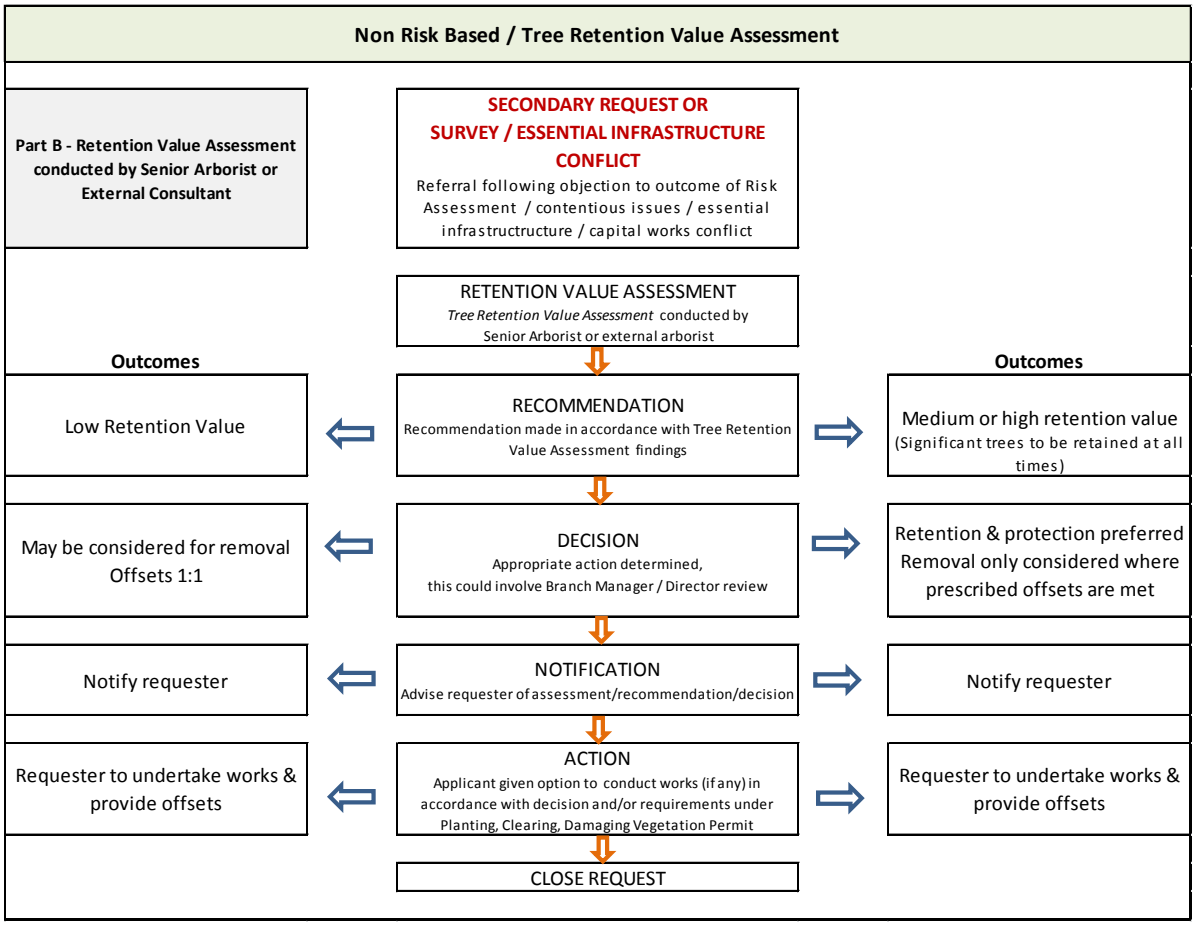
6. Community Education and Consultation

Public consultation will be undertaken in accordance with council's Community Engagement Framework. Community education will be further improved through regular updating of SAFI and factsheets being available on council's website. A proactive role will be taken to foster community involvement in enhancing the tree population, as the needs and benefits of trees are often not fully understood. Increased ownership of trees by the community, resulting in greater surveillance and appreciation for trees may also assist to reduce the occurrence of customer complaints and unlawful interference with trees and vegetation on council controlled land.

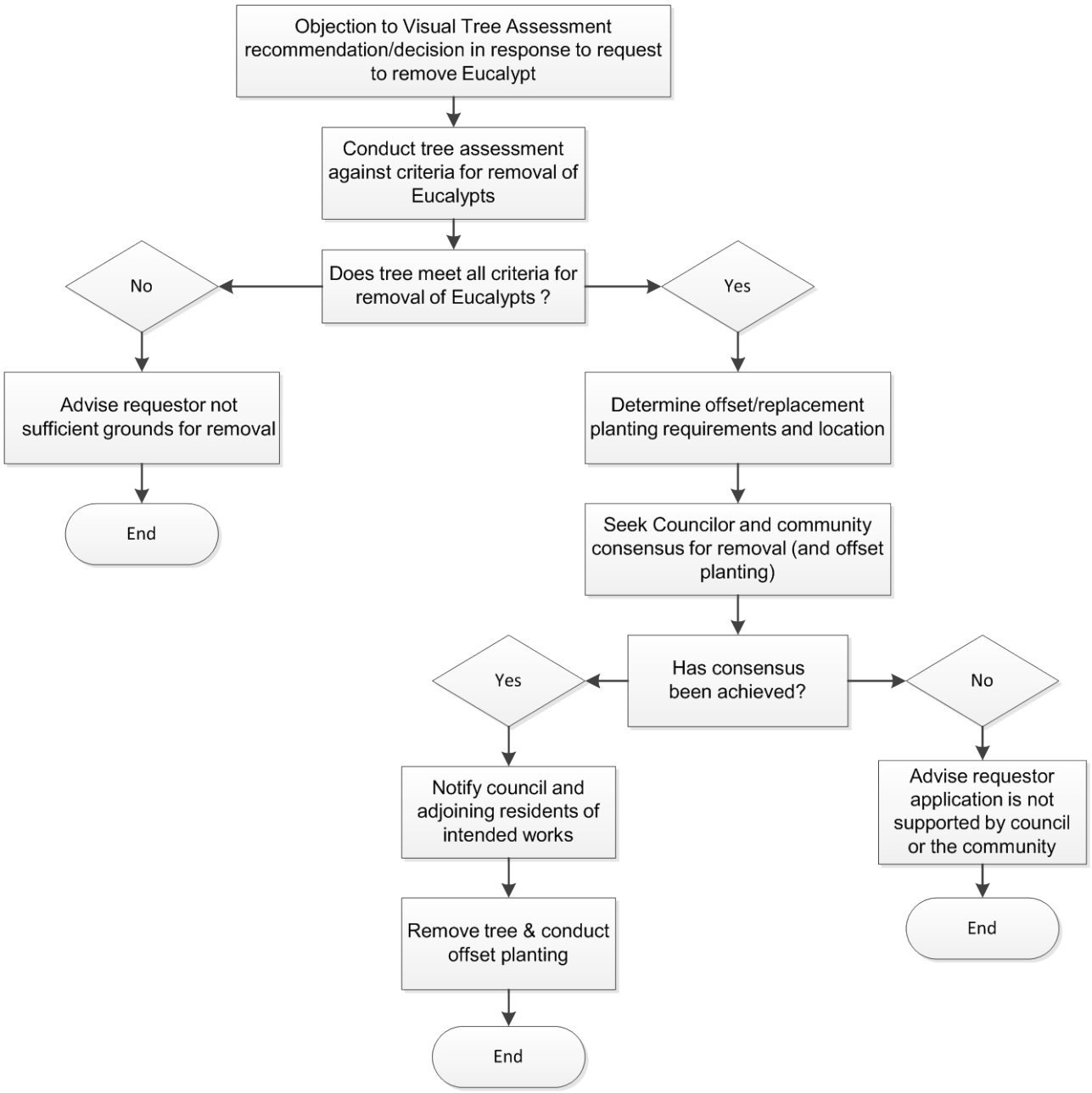
Council will promote responsible arboriculture and provide arboricultural advice to residents and property owners concerning trees on council controlled land. This advice does not extend to privately owned trees.

PROCEDURE DETAIL – TREE ASSESSMENT DECISION PROCESS



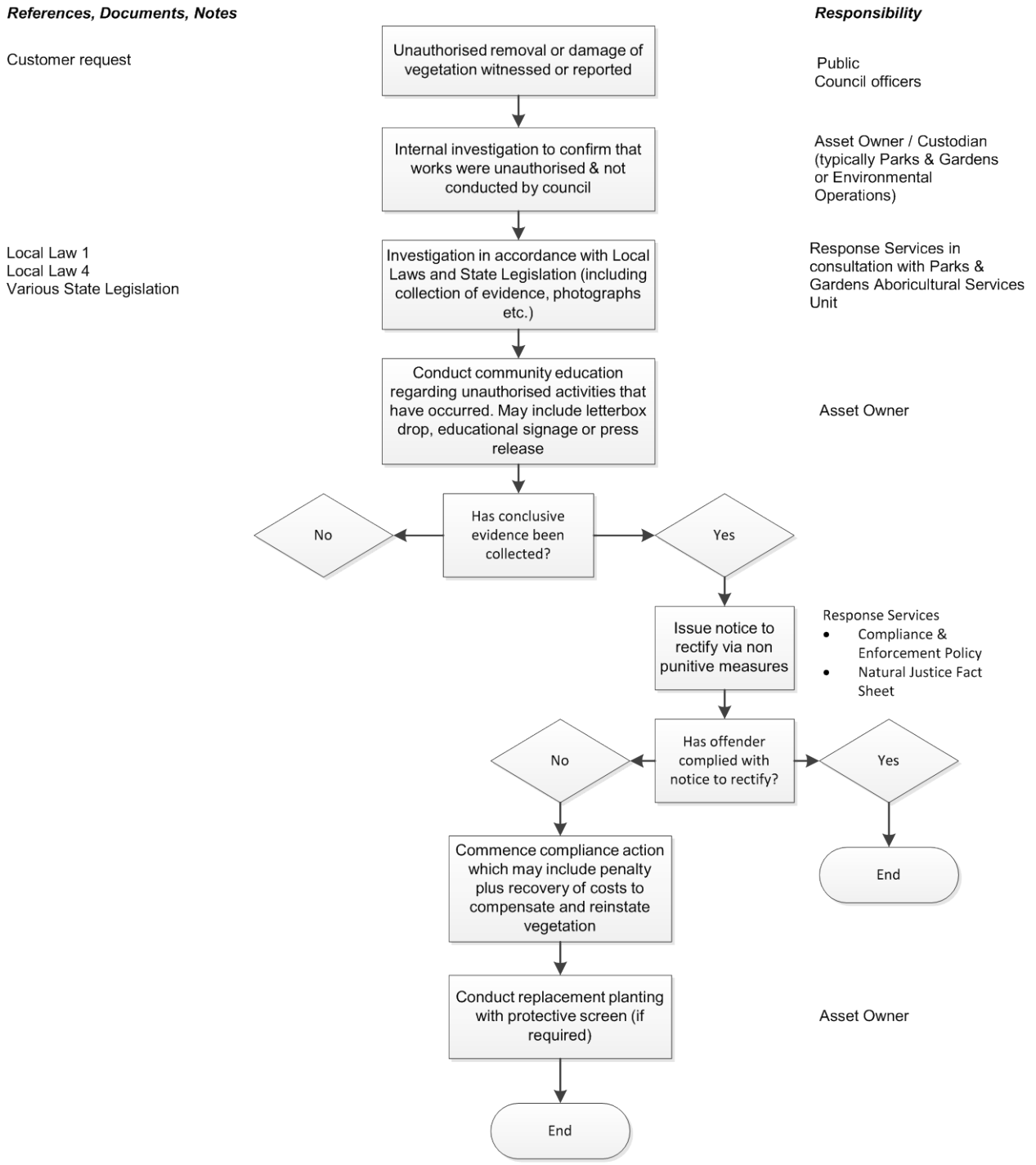


PROCEDURE DETAIL – REQUESTS TO REMOVE EUCALYPT SPECIES



NOTE: If decision challenged refer to 2.6 Dispute Resolution / Decision Review

PROCEDURE DETAIL - UNAUTHORISED REMOVAL OR DAMAGE OF VEGETATION ON COUNCIL CONTROLLED LAND



APPENDIX A - RISK RATING METHODOLOGY FOR TREES (VISUAL TREE ASSESSMENT)

Council's Risk Rating Methodology for Trees is undertaken in two-parts;

Part A determines what the overall outcome of tree failure might be (*consequence*) by considering the potential for a person or property to be targeted if the tree was to fail (*failure target/usage*) along with the potential for the impact to be substantial enough to cause damage (*failure impact*).

Part B determines the overall risk presented by the tree (*hazard rating*) by combining the findings of Part A regarding the potential for damage to life or property to occur as an outcome of failure *(consequence*) with an assessment of the actual likelihood of a tree failure event occurring (*likelihood).* The level of risk will then determine the recommended timeframe for remedial action.

Part A **Determine the target/usage and failure impact factors to assist with determining the consequence**

Failure Target / usage
an estimate of the occupancy and target potential within the fall zone

Score	*Descriptor*	*Example Description*
0	Low use	Low use areas include riparian zones, natural bushland areas with no permanent structures within or definitive pathways, fenced dunal areas, unmade rural road reserves and drainage reserves.
1	Occasional use	Occasional use areas include recreational trails, local residential streets with limited vehicle and foot traffic i.e. suburban culdesacs, low density rural residential areas and unsealed rural roads.
2	Intermittent use	Intermittent use areas include playgrounds, permanent structures, pathways, picnic areas and associated car parking within local recreation parks and amenity reserves, off leash dog parks, fishing and viewing platforms, suburban walkways and bus stops, major roads and local activity centres of hinterland towns and suburban areas with no tourism focus. Residential road corridors.
3	Frequent use	Frequently used areas include playgrounds, permanent structures, car parks & pathways within district recreation parks, sportsgrounds, beach access tracks and popular sections of the coastal pathway, market sites. District activity centres and key business zones, schools, key recreational and community centres and associated car parking. Arterial roads and interconnecting road corridors, bus/train terminals.
4	Constant use	Playgrounds within Sunshine Coast Wide and district recreation parks and tourist hubs. Picnic and BBQ areas of Sunshine Coast Wide recreation parks, foreshore areas, pathways and car parks of popular beaches. Constant use areas include CBD and Civic precincts, coastal tourism focused centres, popular cafe and cultural districts and associated car parking zones. Major regional activity centres and shopping districts, major public infrastructure centres (e.g. major hospitals and university). Major structures within civic, commercial, residential and camping areas. Major road corridors and areas of high traffic congestion.

Failure Impact
the potential impact cause by element failure

Score	*Hazard levels*	*Example Description*
0	Rare	Impact unlikely to result in damage **and/or** size of part <20mm
1	Unlikely	No expected damage, but slightly possibility **and/or** size of part 21-150mm
2	Possible	Possible damage at some time **and/or** size of part 151-450mm
3	Likely	Strong possibility of damage **and/or** size of part 451-750mm
4	Certain	Very likely to cause damage **and/or** size of part >750mm

Failure Target Score + Failure Impact Score = Consequence Rating

Part B Use consequence combined with likelihood to determine Risk Score / Hazard Rating
Hazard rating will determine timeframe for remedial action

Consequence (the potential risk to life or property)	Score	Hazard levels	Example Description
	0-1	Insignificant	No injuries or low financial/property loss
	2-3	Minor	First Aid treatment or medium financial/property loss
	4-5	Moderate	Medical treatment required or high financial/property loss
	6-7	Major	Extensive injuries or major financial/property loss
	8	Catastrophic	Death or major financial/property loss

Likelihood (the chance of an event occurring)	Likelihood	Example Description
	Failure rare	The subject tree appears healthy, is young or has not yet reached maturity, has no apparent signs of compromised structural integrity or damage or reasons for the occurrence of these considering the site context, or is not of a size, condition, life stage or species to pose a threat, and therefore failure would occur rarely and only in exceptional circumstances
	Failure unlikely	The subject tree appears healthy and shows good vigour, is at early maturity or a mature speciman of a long-lived species and has the potential to develop only minor deadwood or defects in the short term, wounding if present consists of small sites only with good wound-wood development and therefore failure is unlikely to occur except in exceptional circumstances
	Failure possible	The subject tree is a mature to aged tree specimen in a declining condition, or short-lived species nearing the end of its useful life, tree defects are present or structural issues have been identified, decay may be apparent, a history of branch shedding may be evident, and therefore failure may possibly occur at some time
	Failure likely	The subject tree indicates numerous and substantial defects, poor wound-wood development/signs of excessive lateral branch weight, decay threshold has been compromised, significant root damage is evident, tree stem supports heavily embedded included bark, fractured branches, major declining branches/trunks, previous significant limb drop events evident, tree is senescent or exhibiting symptoms of severe decline and therefore failure is likely to occur in most circumstances
	Failure certain	The subject tree has considerable structural root damage evident and stability is compromised (for example ground heave coupled with leaning trunk), defects catastrophic for example unsupported active split trunk(s), unsupported splintered /hanging branches, and dead branches/trunks and therefore failure is almost certain to occur in most circumstances

Consequence Score + Likelihood = Risk Score

Risk Score Matrix

Likelihood (Use Part B to determine)	Consequence (Use Part A to determine)				
	Insignificant (0-1)	Minor (2-3)	Moderate (4-5)	Major (6-7)	Catastrophic (8)
Failure certain	Medium	Medium	High	Urgent	Critical
Failure likely	Low	Medium	High	Urgent	Urgent
Failure possible	Low	Medium	Medium	High	Urgent
Failure unlikely	Low	Low	Medium	Medium	High
Failure rare	Low	Low	Low	Medium	Medium

Hazard Rating	Recommend Timeframe for remedial action
Critical	Immediate remedial works required
Urgent	Immediate remedial works required within 3 working days
High	Remedial works required within 2 weeks
Medium	Remedial pruning or as part of routine maintenance. Residual risk tolerable only if further risk reduction is impracticable
Low	No action required

* The Sunshine Coast Council wishes to acknowledge Jason-Jay Fletcher Acting Arborist GCCC for development of risk criteria and timeframes for remedial action in conjunction with Gold Coast City Council officers and authorising their use in this document.

APPENDIX B - TREE RETENTION VALUE PRIORITY MATRIX

The Tree Retention Value - priority rating system determines how important it is to retain a tree considering the tree's significance in the landscape as well as its useful life expectancy.

Council's Tree Retention Value - Priority assessment is undertaken in two-parts.
Part A Determines the tree's Landscape Significance (low, medium or high) - based on meeting three or more criteria in any tree significance category.

Part B combines the tree's Landscape Significance with its Useful Life Expectancy to determine the Tree Retention Value and corresponding tree offset method.

Part A	Determine the tree's significance in the landscape by selecting appropriate option for each criteria (see guidance notes over page). Three or more criteria in any one ***Tree Significance*** category = corresponding ***Landscape Significance*** category

LANDSCAPE SIGNIFICANCE CRITERIA		**Landscape Significance**			
		Low		**Medium**	**High**
Criteria Factor	**Condition**	Poor	Fair-poor	Fair-good	Good
	Type	Weed / pest	Young / inappropriate species	Common	Remnant/ rare/ exceptional
	Importance of position in landscape	None	Little	Some	Considerable
	Relation to setting	Barely suitable	Fairly suitable	Suitable	Especially suitable
	Form	Poor	Fair	Fair-good	Good
	Special factors	No	No	No	Yes

Part B	Use ***Landscape Significance*** rating along with ***Estimated Life Expectancy*** to determine tree ***Retention Value*** ***Retention Value*** will also determine ***Offset Method*** to be used, should the tree be removed

TREE RETENTION VALUE PRIORITY MATRIX		**Landscape Significance**			
		Low **Environmental Pest / Noxious Weed Species**	**Low**	**Medium**	**High**
Estimated useful life expectancy	**Long** > 20 years	Consider for removal	Consider for retention	Priority for retention	Priority for retention
	Medium 5 - 20 years	Consider for removal	Consider for retention	Consider for retention	Priority for retention
	Short < 5 years	Consider for removal	Consider for removal	Consider for removal	Consider for removal
	Dead	Consider for removal	Consider for removal	Consider for removal	Consider for removal

Legend for Matrix Assessment & Corresponding Offsets Required			
	Low Retention Value (Consider for Removal)	These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.	**Offset Method:** 1:1
	Medium Retention Value (Consider for Retention)	These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.	**Offset Method:** 3:1
	High Retention Value (Priority for Retention)	These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 Protection of trees on development sites. Tree sensitive construction measures must be implemented e.g. pier and beam etc. if works are to proceed within the Tree Protection Zone.	**Offset Method:** No Net Canopy Loss (Singular or group tree)

* The above table is an adaption fo the Draft Australian / New Zealand Standard - Amenity Trees - Guide to Valuation and IACA, 2010 Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculurists, Australia

Landscape Significance - Guidance Notes

CONDITION	Poor	The tree is in poor condition
	Fair-poor	The tree is in fair-poor condition
	Fair-good	The tree is in fair-good condition
	Good	The tree is in good condition
TYPE	Weed/pest	The tree is an environmental pest species of the Sunshine Coast or declared pest plant
	Young/ inappropriate species	The tree is a young specimen and can easily be replaced with the same species or an inappropriate species that should be replaced with a more suitable species. These trees may also be readily transplanted
	Common	The tree is a planted locally native or a native or exotic species that is commonly planted in the local area
	Remnant/rare/ exceptional	The tree is a remnant or is a planted locally native specimen and/or is rare or uncommon in the local area. The tree may be considered an exceptional specimen and/or culturally significant for reasons of botanical interest, significant age, size, appearance or habitat value
IMPORTANCE OF POSITION IN LANDSCAPE **The aesthetic value of the tree, taking into account impact on the landscape should the tree be removed**	None	The tree provides a minor contribution only or has a negative impact on the visual character and amenity of the area
	Little	The tree is not visible, or is only partly visible from surrounding properties as obstructed by other vegetation or buildings.
	Some	The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street and/or the tree provides a fair contribution to the visual character and amenity of the area
	Considerable	The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and/or makes a significant contribution to local amenity. Trees in foreshore locations or remnant/rare/exceptional trees should also be included in this category as an outcome of their very presence despite their actual prominence in the landscape
RELATION TO SETTING The tree's suitability to the particular setting	Barely suitable	The tree's growth is severely restricted by above or below ground influences and is unlikely to reach full dimensions typical for the species - tree is inappropriate to the site conditions
	Fairly suitable	The tree's growth is moderately constrained by above or below ground influences, reducing its ability to reach dimensions typical for the species
	Suitable	Minor constraints may exist but should not limit the trees potential to reach full dimensions if site conditions are not significantly altered
	Especially suitable	The growing environment supports the tree to its full dimensions above and below ground without conflict or constraint
FORM Form not need be natural to be rated as good	Poor	The tree is in poor structural condition and is compromised as an outcome of poor stock quality, damage or decline, or stunted or supressed tree
	Fair	The tree has form atypical of the species but is not significantly structurally compromised
	Fair-good	The tree has form typical or atypical of the species but remains attractive and viable
	Good	The tree has good form for the species
SPECIAL FACTORS	In certain cases trees warrant acknowledgement for special factors. Some examples of special factors include: Historical associations Unusual botanical interest Food or habitat value Great rarity Exceptional landscape value Obscures an unpleasant view The loss of the tree forming part of a deliberate composition - such as in an avenue or at a focal point, that would detract from the scene The tree is located in a conservation area designated partly because of the importance of its trees The tree grows in a location where it is difficult to establish new trees due to site specific conditions or a high incidence of vandalism	

APPENDIX C – NO NET CANOPY LOSS METHOD

(for calculating off-sets for trees classified as high priority for retention)

If the subject tree to be removed doesn't satisfy the standard risk based tree removal criteria and is rated as a High Retention Value/Priority for retention according to the Tree Retention Value - Priority Matrix, the No Net Canopy Loss method for calculating offsets will apply. The theory behind this method is that compensatory planting must achieve no net canopy area loss within either 3 years of the subject tree being removed (based on a 45 litre nursery stock size) if the tree grows on its own, is in a high profile location and/or grows in a site where tree establishment is difficult or 5 years if the tree grows as a part of a group, is in a low profile area and there are no known constraints for tree establishment in the area.

It is projected that a 45 litre tree will produce a canopy diameter of 2.0 metres (1.0m radius) in 3 years and 2.8 metres in 5 years (1.4m radius) and has a base value of $300.00 (including supply, installation, and 12 months establishment maintenance).

Example: An original tree of 6 m canopy diameter has an approximate canopy area of 28 square metres, and would require 9 x 45 litre compensatory trees to achieve the no net canopy loss within

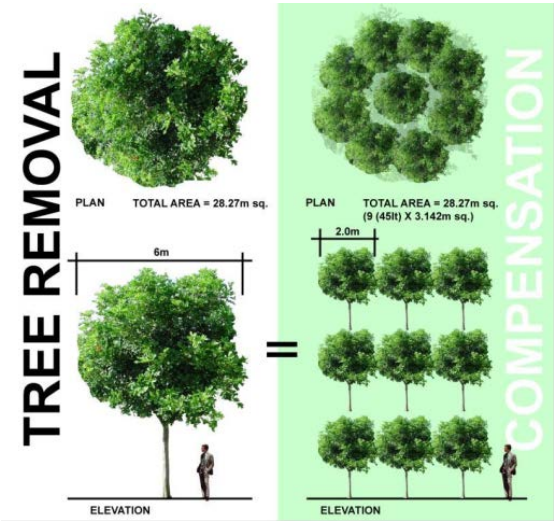
3 years. The mathematical calculation is as follows:

Tree with a 6m diameter canopy (3m radius)

1. 3.142 (π) x 3 x 3 = 28.28m2.

2. 28.28 m2 ÷ 3.142m2 (3.142 (π) x 1.0m x 1.0m) = **9 trees**
3. 9 x $300.00 (45 litre) = $2,700

Diagrammatically shown as:



The same tree requiring replacement according to no net canopy loss after **5 years** would require 4.5 new trees. The mathematical calculation is as follows:

Tree with a 6m diameter canopy (3m radius)

1. 3.142 (π) x 3 x 3 = 28.28m2.

2. 28.28 m2 ÷ 6.16m2 (3.142 (π) x 1.4m x 1.4m) = **4.5 trees**
3. 3 x $300.00 (45 litre) = $900

The Sunshine Coast Council wishes to acknowledge Lyndal Plant of Brisbane City Council for the development of the No canopy loss model. The above version has been modified and authorised for use by Sunshine Coast Council in consultation with Jason-Jay Fletcher, Acting Arborist Gold Coast City Council.

Version control:

Version	Reason/ Trigger	Change (Y/N)	Endorsed/ Reviewed by	Date
1.0	Re-badged department	Y	Executive Officer	21/07/2014
	e.g. Review			