

# Street Tree Policy Update

# Street Tree Policy 2010









# CONTENT

1	Introduction	5
1.1	Purpose	5
1.2	The Benefits of Street Trees to the Community	6
2	Council's Commitment to Street Tree Management	9
2.1	Street Tree Risk Management	9
2.2	Street Tree Planting	9
2.2.1	Introduction	9
2.2.2	Tree Selection	10
2.2.3	Procurement, Planting and Establishment Maintenance	11
2.2.4	Planting Programs	12
2.3	Street Tree Pruning	13
2.4	Street Tree Removal	14
2.5	Street Tree Root Management	15
2.6	Street Tree Protection	15
2.7	Street Tree Health Care and Nuisance Pest Control	15
3	Brimbank's Community and Street Trees	17
3.1	Introduction	17
3.2	Street Tree Planting and Consultation with the Community	17
3.3	Community Education and Street Trees	18
3.4	Requests for Street Tree Maintenance and Planting	19
3.5	Local and State Laws relating to Street Trees	19
3.6	Protection of Street Trees from Vandalism, Accidents and Loss due to	
	Adjacent Land Development	20
3.6.1	Definitions	20
3.6.2	Protection of Street Trees from Adjacent Development	21
3.6.3	Unauthorised Damage or Removal of Street Trees	22
3.7	Claims for Damages Caused by Street Trees	22
4	References	23

# APPENDICES

А	Assigning a Monetary Value to a Street Tree	25
В	Activities restricted within the Crown Periphery of a Street Tree	29









# 1. INTRODUCTION

### 1.1. Purpose

Developing and maintaining tree lined streets, in the City's neighbourhoods, within its Town Centres and along its main thoroughfares is an important part of improving the character and image of Brimbank and making it a more attractive and enjoyable place to live. This document sets out Council's approach to the management of street trees as part of a commitment to creating and maintaining an attractive and safe urban environment.

This Policy has been prepared to assist residents, property owners, contractors, land developers, Council officers, service authorities and interested persons in understanding and appreciating the processes and actions required to appropriately manage street trees within the City, as determined by the community and Council.

The goal of street tree management is based on an understanding of the dynamic nature of the resource, its aesthetic and safety requirements, public attitude and perception, and Council's commitment to engaging and working with the community.

In order to sustain the landscape and meet public demand, trees need to be planted and established, maintained and removed. Planning and consultation is required in order to facilitate each of these processes.

This policy document provides an overview for the management of street trees located on Council managed road reserves and includes guidelines and actions for:

- Risk Management
- Planting including selection, procurement, planting and establishment maintenance
- Pruning
- Removal
- Root Management
- Protection
- Plant Health Care and Nuisance Pest Control
- Consultation and Inclusion



# 1.2. The Benefits of Street Trees to the Community

The value of street trees to the community and the urban environment is often overlooked but are significant and quantifiable contributors to the four principle tenets of the Brimbank Community Plan 2009 - 2030:

- **Community Wellbeing** ~ Street trees provide a sense of 'place' and soften the often harsh urban environment making it a more serene and welcoming place in which to live and work. Because of their potential for long life, street trees frequently remind us of our history and define a neighborhood's character. Street trees have a significant influence on physical and mental health by providing natural restorative spaces in the urban context.
- Urban Design & Infrastructure ~ Street trees can make an important contribution to neighbourhood character and the image of a City. Melbourne's well known boulevards are memorable largely because their street trees. Street trees provide several architectural and engineering functions. They provide privacy, emphasise views, or screen out objectionable views. They reduce glare and reflection. They direct pedestrian traffic and can calm traffic. They provide background to and soften, complement, or enhance architecture. The shade provided by street trees can also reduce pavement fatigue improving public safety and reducing management costs.
- Sustainable Environments ~ Street trees alter the environment in which we live by moderating climate, improving air quality, conserving water, and harboring wildlife. They can act as windbreaks and deflect rain fall along foot paths. Trees intercept water, store some of it, and reduce storm water runoff. Temperature in the vicinity of trees is cooler than that away from trees. Trees can improve air quality as leaves filter the air we breathe by removing dust, carbon dioxide and other particulates—and give off oxygen. Birds and other wildlife are also attracted to trees.

In addition, street trees support urban sustainability by providing economic benefits both direct and indirect. Direct economic benefits are associated with reduced energy costs. Cooling costs are lower in a treeshaded streets. Heating costs are reduced when street trees provide a windbreak. Large, appropriate street tree plantings increase local property values. The indirect economic benefits of trees can be greater and community wide. Lower electricity bills are paid by communities when power companies are able to use less water in their cooling towers, build fewer new facilities to meet peak demands and use fewer measures to control air pollution. Communities also can save money if fewer facilities must be built to control storm water.

The use of indigenous tree species in road reserves adjacent to and linking reserves rich in local flora and fauna can assist in the maintenance and enhancement of local biodiversity.



• Council and the Community Working Together ~ Council's Street Tree Infill Program (STIP) informs and involves the community in the process for determining tree species to be planted in residential streets. Council intends to review all planting programs to include improved consultation processes and will look for ways to actively involve residents in planting works. In addition, Council is proposing to develop an education program around street trees.

### **ACTIONS**

• As of January 2010, Brimbank has approximately 89,000 registered street trees which represents approximately 60% of available planting locations within the City's streets. The City aspires to achieving 95% street tree stocking by 2030 through tree planting and appropriate management, creating an urban forest oasis in the western suburbs where residents and visitors will want to live and work.











# 2. COUNCIL'S COMMITMENT TO STREET TREE MANAGEMENT

The following statements have been adopted to maintain and improve the current integrity of the urban forest and to ensure the future development and safety of the City's street tree assets to the benefit of our community.

# 2.1. Street Tree Risk Management

Council recognises its duties and responsibilities in the management of risk associated with its street tree assets and this will be conducted in accordance with Council's Risk Management Policy and Strategies as developed from AS4360/2004 'Risk Management'.

Public safety will be maintained through the use of generally accepted professional practices of tree assessment and treatment in order to reduce risk associated with hazardous trees to an acceptable level.

### **ACTIONS**

- Utilise a program of systematic tree assessment and 'best practice' tree management to mitigate tree risk for residents and visitors to the City
- Maintain accurate and current documentation on the management of Council's tree assets
- Maintain high standards of tree management to current 'best practice' and recognised standards
- Provide adequate resources to ensure proper tree management to mitigate risk potential

# 2.2. Street Tree Planting

### 2.2.1. Introduction

The right tree for the right place with due consideration to biological and functional, aesthetic and design requirement criteria is of paramount importance. The most successful course is to match the planting site limitations with the right tree for that site.

There is no one perfect urban tree. It is also important to understand that there is no one urban environment. The urban environment is a varied conglomeration of microclimates. Above ground or below ground site conditions can change dramatically within the space of a few metres. Consequently, a site analysis of each major planting site will allow more appropriate tree selections.

Appropriate site assessment and tree selection can have the following benefits.

• Mitigate conflicts between tree roots and adjacent infrastructure.



- Reduce the incidence of pest and disease outbreaks. This can be achieved through selecting resistant varieties of trees and increasing species diversity through the City.
- Increase plant performance by attributing species to particular soil conditions.
- Increased tree longevity so that tree benefits exceed the costs. The benefit of an urban tree is directly proportional to its crown size or volume and longevity in the landscape.
- Reduced maintenance costs, e.g. pruning requirements can be reduced by selecting smaller trees under power lines or narrow canopy form for busy roads.
- Produce attractive streetscapes that reinforce the pervading landscape and architectural character.
- Reduced environmental demand trees that have tolerance of drought and generally not require additional resource inputs.

Tree selection will take into account relative plant tolerances and adaptability, and integration into surrounding planting themes.

Procedural solutions such as community consultation and the detailed review of horticultural, arboricultural, planning and historical literature associated with the proposed planting site will be considered.

### 2.2.2. Tree Selection

Species will be selected that do not require excessive resource input to maintain them in a safe and aesthetically pleasing manner. Tree species known to cause excessive damage to infrastructure will be avoided. Tree species that are known for their structural integrity and limited litter drop will be preferred.

Australian species from other localities and exotic species can make positive contributions to the landscape. In some cases, these species are better adapted to the conditions of the highly modified urban environment and have positive attributes that fulfill specific landscape functions.

Remnant and indigenous vegetation has an important role to play in urban landscapes. The maturity of existing remnant vegetation is impossible to replace and the diversity of natural plant communities is difficult to replicate. Preservation of existing remnant vegetation is the most efficient way to incorporate biodiversity in urban landscapes.

The use of indigenous tree species in streets will have greater impact and benefit when used adjacent to or to link open space that has significant remnant vegetation.

Tree selection will be based on the following criteria:



- **Biological Requirements** ~ the trees' ability to tolerate urban conditions. The species selected should have high tolerance levels that will allow establishment and sustained growth while producing desired benefits with low management inputs. It also relates to available root space to sustain the potential tree size.
- Ecological Issues ~ includes tree diversity, maintaining and enhancing existing significant areas of native and remnant indigenous vegetation, and selecting plants that do not have the potential to become woody weeds and impact on natural systems.
- Functional and Spatial Issues ~ includes crown and foliage type within the constraints of the urban environment and the trees tolerance to pruning. It also relates to the tree's root system and its limited impact on adjacent infrastructure.
- Aesthetic Issues ~ the ability for trees to enhance the visual amenity of a streetscape or area, without negative impact to surrounding infrastructure and the fit with neighbourhood character, including existing street trees, is also a consideration.
- Health Considerations ~ species selection will utilise trees that have no known or low levels of toxic or allergenic characteristics.
- **Tree Longevity** ~ the longer a tree is allowed to grow in a site the greater the benefits to the landscape and return on initial investment the trees will have.
- **Commercial Availability** ~ to successfully provide the desired numbers and size for tree planting programs.

### 2.2.3. Procurement, Planting and Establishment Maintenance

The procurement of trees for street tree planting will be undertaken in accordance with Brimbank City Council's Planting Supply Specifications. The height of planting stock is dependent upon availability but is generally between 1.0 metres and 2.8 metres tall.

Street tree planting will be undertaken in accordance with Brimbank City Council's Planting Street Trees Specifications which is based on current 'best practice'.

Establishment maintenance for street tree planting will be undertaken in accordance with Brimbank City Council's Maintenance of Street Trees Specifications. A program of tree establishment and aftercare maintenance that includes watering, mulching, weed control and formative pruning will extend for a minimum two years after planting. The period of aftercare maintenance may be extended, depending upon seasonal conditions and tree establishment. During periods of water restrictions, recycled A class water with Total Dissolved Solids (TDS) rates less than 850ppm may be used upon street trees for all or part of the duration of the two-year tree establishment period.



The aforementioned specifications shall apply to both internal and contracted Council works.

### 2.2.4. Planting Programs

Brimbank City Council will maintain four major street tree planting programs including:

- Street Tree Infill Program ~ improving the appearance of local neighborhoods through the planting of trees in vacant sites in local streets. Program includes an extensive community consultation process. Program plants between 1,500 1,750 new trees per planting season.
- **Replacement Tree Program** ~ planting of trees removed prior to the planting season and in response to resident requests for street tree planting. Program plants approximately 600 700 trees per planting season.
- Main Roads Planting Program ~ planting of trees along main roads, boulevards and gateways. Program plants approximately 600 700 trees per planting season.
- Road Rehabilitation Program ~ planting program that complements the City's road reconstruction program. Program plants approximately 300 400 trees per planting season.

Street tree planting opportunities may also be generated through either Council Officers and approved Parks Services Department contractors as part of on-going maintenance works and inspections.

- Select tree species for planting based on their suitability for the site, performance, and potential to contribute to landscape character meeting functional, aesthetic and ecological requirements.
- Set and maintain high tree procurement, planting and establishment maintenance standards in line with current 'best practice'.
- Street tree planting will endeavour where practicable to maintain the homogenous nature of an avenue planting. However, two species may be selected for streets where site conditions may vary on either side of the road.
- New estate developments that include street tree plantings will be subject to the same requirements of this Policy and associated documentation.
- Where appropriate space exists, larger growing species will be preferred over smaller trees.
- Undertake appropriate selection, placement and planting of trees to reduce long-term risk.



# 2.3. Street Tree Pruning

All pruning works will be undertaken in accordance with Australian Standard AS4373-2007 'Pruning of amenity trees' for the purpose of crown maintenance and/or modification.

Clearance of street trees from overhead power lines will be conducted in accordance with Brimbank City Council's Electrical Line Clearance Management Plan 2009-2010 (and annual revisions of this document), associated Acts and regulations and subsequent revisions.

Clearance of street trees from street lighting, traffic signals, advisory signs, road and foot pavements located within road reserves managed by Council will be undertaken in accordance with the Council's Road Asset Management Plan 2009 (and subsequent revisions).

Requests for the pruning of street trees from over private property lines will be individually assessed by Council. The decision on the action to be taken will be based on the level of nuisance created by the street tree and consultation with the property owner.

Notwithstanding the requirements for the clearance of street trees from power lines or along roadways; Council will not undertake pruning works for the purpose of limiting the height or width of a street tree's current or future crown dimensions.

- Council will maintain its programmed maintenance works for the clearance of street trees from power lines, street lighting, traffic signals, advisory signs, road and foot pavements.
- Pruning requests will be assessed in accordance with Section 3.4 'Requests for Street Tree Maintenance and Planting' of this policy statement.
- Pruning works will be prioritised according to the level of urgency and available resources.
- In areas where the structural limbs (limbs with a diameter of 150 millimeters or more) of a street tree do not meet the minimum requirements of Council's Road Asset Management Plan over road pavements; engineering solutions including but not limited to signage or line marking shall be considered before pruning or removal.
- In areas where pruning to meet the requirements of the Electrical Safety (Electric Line Clearance) Regulations 2005 is likely to have a detrimental effect upon the structure, health or aesthetic appearance of street trees, Council may seek alternative solutions where practicable.



# 2.4. Street Tree Removal

Brimbank City Council will seek to avoid street tree removal wherever possible. However, street tree removal is an acceptable management option when required for human health and safety, to protect infrastructure, to facilitate approved development and infrastructure improvements, to maintain a healthy urban forest or for ecological restoration.

Street trees and groups of street trees may be removed only when one or more of the following criteria are met:

- The tree or tree group poses a severe safety hazard that cannot be corrected by pruning, transplanting or other treatments.
- The tree or tree group severely interferes with a neighbouring tree or tree group to the extent that neither tree can develop to its full potential. The more desirable tree will be preserved.
- The aesthetic values of the tree or tree group are so low or negative that the site is visually enhanced by the trees removal.
- Tree or tree group is dead or close to death.
- The tree or tree group poses an extreme and agreed public nuisance.
- Where improvements, infrastructure repair or maintenance required to be made around the tree or tree group will kill or render the tree a hazard or significantly impact on the trees' condition and useful life expectancy.
- The tree is found to be substantially contributing to damages to public or private property and no other viable means are available to rectify the situation.
- The tree or tree group is infected with an epidemic insect or disease where the recommended control is not applicable and removal is the recommended practice to prevent transmission.

Council will not consider street tree removal for trees that do not meet the above criteria but will provide advice to affected persons on how the perceived problem(s) may be limited.

- Council will identify, assess and take appropriate action for street trees that meet the removal criteria. This will be undertaken as part of its programmed maintenance works.
- Removal requests will be assessed in accordance with Section 3.4 'Requests for Street Tree Maintenance and Planting' of this policy statement.
- Removal works will be prioritised according to the level of urgency and available resources.
- In most instances and where practicable, street trees that are removed shall be replaced in the following planting season with the same or more suitable species.



# 2.5. Street Tree Root Management

Root management works, including root pruning, root deflector and soil moisture cut-off barriers, are occasionally required to be performed on street trees. This work is required for risk management, to maintain public safety and contain tree root growth where necessary to prevent damage to property, roads, kerb and channel and footpaths.

Root pruning is the practice of removing a portion of a tree's root system. The circumstances necessitating root pruning vary, but the outcome is to always to ensure the health, stability, and longevity of the street tree. Root pruning of street trees will not be permitted without the approval of Council's Tree Coordinator or delegated representative.

### **ACTIONS**

• Council will adopt appropriate action in the management of street tree roots that are causing damage to roads, kerb and channel, footpaths and associated infrastructure within the road reserve. The action will include but not be limited to the use of root deflectors, road, kerb and channel and/or footpath replacement and reinforcement, root pruning or tree removal.

# 2.6. Street Tree Protection

All works or actions undertaken by Council within or adjacent to the crown periphery and/or root zone of a Street Tree that may have a detrimental effect upon tree structure, health or aesthetic appearance shall be assessed by Council's Tree Coordinator or delegated representative and if required, a management plan developed in consultation with the relevant Council Department.

### **ACTIONS**

• Council will develop a Working Near Trees Management Plan that takes into consideration the requirements of AS4970-2009 'Protection of trees on development sites'.

# 2.7. Street Tree Health Care and Nuisance Pest Control

Declining plant health, pest and disease infection are generally a manifestation of stress that is directly attributable to static site or short duration inciting factors. Factors include but are not limited to climate, soil type or site conditions, the genetic potential of the tree, frost, drought, flooding, air pollutants, or mechanical injury. Maintaining plant vigour is the best form of prevention against declining health and the effects of pest and disease.



Declining health in stands of large maturing or significant individual street trees will be managed through the application of appropriate cultural practices as determined by Council's Tree Coordinator or delegated representative with reference to current 'best practice' and consultation with the community.

The control of pests and/or diseases will take into account static and/or inciting factors and address those issues as part of an integrated approach to the control of the problem.

Pesticide application and disease control measures will be undertaken in accordance with the Code of Conduct for Pest Management Technicians as published by the Department of Human Services.

- Council will trial various cultural practices to improve poor health in stands of large maturing or significant individual street trees in consultation with affected residents. Cultural practices that prove to be effective shall be adopted and implemented as required.
- Council will identify and take appropriate action for the control of pests and diseases in street trees where damage exceeds 15% of the total crown volume.
- Council will cooperate and take appropriate action as directed by relevant statutory authorities should introduced pests and/or diseases that threaten Australian horticulture be identified within the street tree population.
- Council will control nuisance pests such bees, wasps and termites that sometimes inhabit street trees.





# 3. BRIMBANK'S COMMUNITY AND STREET TREES

### 3.1. Introduction

Brimbank City Council is committed to fairness in the provision of services and genuine participation by the community in decision making identified in this Policy and as detailed in the Social Justice Charter 2008.

The City is committed to providing our community with responsive and consistent customer service to the highest standard. These standards, along with various feedback options will help Council maintain strong and valued relationships with all its stakeholders as detailed in the Customer Service Charter 2006.

Brimbank City Council acknowledges and commends members of the community who take an active role in removing debris on private and public land that is generated by street trees.

# 3.2. Street Tree Planting and Consultation with the Community

Brimbank City Council's largest street tree planting program, the Street Tree Infill Program (STIP) involves extensive consultation with affected residents prior to street trees being planted. The consultation and information process comprises the following elements and will be conducted in accordance with relevant specifications:

- Distribution of a letter advising affected residents of the STIP, and providing residents with a choice of one out of three trees offered. Each letter shall have a return to sender envelope to enable residents to respond to the choice of tree.
- If there is an existing appropriate dominant species in the street, residents will not be offered a choice of trees species as the dominant species will be used for infill planting. Dominant species are defined as a species that exists in front of at least 50% of allotments in any given street. Affected residents will be advised in writing if this is to occur.
- Council's website will provide a link that provides overhead aerial mapping which shows STIP areas for each planting year. An online forum will be included enabling the public to pose questions and forward comments on proposed/existing plantings.
- Residents will be advised of the tree species to be planted based on the species that receives the most votes and when planting is proposed.
- Residents may seek their own planting choice outside those that are offered within the consultation period if the following conditions are met:
  - A 70% majority threshold of residents in the street must agree on the alternative species.
  - The submission must be lodged with Council within the consultation period.



• Council and its contractor must agree with residents on the species proposed. The species must be suitable and appropriate for the proposed sites as detailed in Section 2.2 'Street Tree Planting'.

Council currently promotes active participation by residents in the establishment of newly planted street trees through the 'Adopt a Tree' program which encourages residents to support Council managed establishment maintenance programs by providing a bucket for 'top up' watering of newly planted street trees during periods of hot weather and a brochure that details other forms of assistance that will ensure the establishment and longevity of the planting.

Council seeks to develop uniform streetscapes that compliment landscape character and meet design and maintenance requirements. Without Council approval, residents are requested not to plant trees and shrubs within the naturestrip or other sites within the road reserve and to use the aforementioned process should they want street trees in their local area.

### **ACTIONS**

- Council will review all other street tree planting programs with a view to improving the process of consultation and inclusion.
- Council will investigate ways of actively involving residents in street tree planting works.

# 3.3. Community Education and Street Trees

Brimbank City Council is committed to providing a high quality service that meets the needs of the community's street trees. Council will communicate to the community on how this service is delivered, the value that street trees bring to the community, how residents may be able to contribute meaningfully to the process of management, provide residents with a forum for feedback to Council and general tree related information.

### **ACTIONS**

• Council will develop a Community Education Program that specifically targets street tree issues.







# 3.4. Requests for Street Tree Maintenance and Planting

Persons may request a street tree planting, pruning, removal, root management, plant health care and nuisance pest control by contacting Brimbank City Council's Customer Service representatives. All requests for street tree works shall be recorded, forwarded to Council's Parks Services Department, inspected and assessed by the Tree Coordinator or delegated representative.

The person (if any) making the request for maintenance will be advised of the action to be taken and the approximate timelines in which the works will be completed.

Persons making a request for street tree planting will be advised whether the request can be accommodated. If the site is suitable, the person making the request will be advised of the species to be planted and the approximate timelines in which the works will be completed. Street tree planting will occur in the planting season following the request. Planting seasons are usually conducted between April - August. Council will endeavour to meet requests for planting made during the planting season although planting will be subject to timing of the request, stock and resource availability.

Persons wishing to appeal the decision on the action to be taken may do so in writing addressed to the Council's Chief Executive Officer.

# 3.5. Local and State Laws relating to Street Trees

Persons who interfere with, damage or destroy a street tree may be subject to action and penalties as detailed in Brimbank City Council's General Local Law 2008, Clause 28 'Damage to Assets', 28.1 which states:

"A person must not graffiti, deface, disfigure, remove or affix any document to or otherwise interfere with, damage or destroy Council property or Council assets including any drain, fire prevention appliance, drainage pit or lid, gate, fence, notice board, sign, pole, stonework, **tree, tree guard**, line marking or automatic traffic counting equipment, seat or structure of any kind on Council property or in a public place."

In addition, persons who interfere with, damage or destroy a street tree may be subject to costs associated with the street trees removal and replacement including compound interest as detailed in Section 3.6 of this document.

The parking of vehicles on the nature strip adjacent to street trees can have a detrimental effect upon plant health by compacting soils thus limiting root growth and through inadvertent impact with the street tree's trunk or crown resulting in injury.



Persons who park on nature strips may be subject to penalties issued by Brimbank City Council under the Road Safety (General) Regulations 1999, Schedule 3 'Parking Infringements', Clause 4(a)(xiii).

# 3.6. Protection of Street Trees from Vandalism, Accidents and Loss due to Adjacent Land Development

Brimbank City Council's community value the street tree assets and wish to protect them against actions by persons outside Council's control that may threaten their well being. The following conditions have been developed to better protect street trees from the effects of adjacent land development, to discourage persons who may wish to take unauthorised action in regard to a street tree and to penalise those persons who do.

### 3.6.1. Definitions

The following definitions have been provided to more clearly define when components of this Policy section are to be applied.

### (1) Valued Street Trees

Valued street trees can be either living or dead and shall be defined by the contribution the tree makes to the area's character and the impact the removal shall have on local amenity. A valued tree or group of trees shall specifically include:

- specimen tree(s) (trunk diameter equal to or greater than 100 millimetres and equal to or greater than three [3] metres tall);
- tree(s) that are representative of more than 30% of trees in any street (may comprise both Valued and Marginal Value Street Trees);
- habitat tree(s) living or dead;
- remnant indigenous vegetation;
- tree(s) identified in Brimbank City Council's Significant Tree Management Plan;
- tree(s) identified as having heritage or cultural significance; or
- rare or endangered tree species or specimen.

Valued Street Tree(s) does not imply that a Street Tree Valuation has been assigned to the tree.

### (2) Marginal Value Street Trees

Those trees that are not contributing significantly to the amenity of the streetscape due to one of the following:

- the tree is less than three (3) metres in height with a trunk calliper of less than 100 millimeters;
- the tree is 50% or more dead and is not a habitat tree of value;



- the tree has structural faults that cannot be mitigated through appropriate arboricultural management practices; or
- the tree is a weed species as defined in the Weed Guide for Brimbank 2008 and subsequent revisions.

### (3) Street Tree Valuation

Trees are essential components of our environment and have an intrinsic amenity value. It is the intrinsic amenity value that sometimes needs to be translated into a universally meaningful monetary value.

The most common use of the monetary valuation of trees is compensation for loss or damage. Valuation may also be considered when establishing tree preservation bonds on Valued Street Trees adjacent to residential or commercial development sites. *Please refer to Appendix A "Assigning a Monetary Value to a Valued Street Tree" of this Policy for further detail.* 

### 3.6.2. Protection of Street Trees from Adjacent Development

The protection of street trees from the adverse effects of adjacent land development will be undertaken in accordance with Australian Standard AS4970-2009 'Protection of trees on development sites'.

All works or actions undertaken within or adjacent to the crown periphery and/or root zone of a Street Tree that may have a detrimental effect upon tree structure, health or aesthetic appearance shall be assessed in accordance with Australian Standard by the persons or parties and a management plan submitted and approved by Council prior to the works or actions being undertaken.

Valued Street Tree ~ Persons wishing to undertake works or actions within or adjacent to the crown periphery and/or root zone of a Valued Street Tree will be required to submit an application that includes as a minimum a tree assessment and management plan prepared by a suitable qualified arboriculturalist for approval by Council. All costs associated with the assessment and delivery of the management plan are to be borne by the person(s) making that application. Where tree removal is requested for the purpose of adjacent land development or other activity where the requirements of the Protection of Street Trees from Adjacent Development cannot be appropriately applied, a Street Tree Valuation will be applied and all costs detailed shall be borne by those persons making the application.

**Marginal Value Street Tree** ~ Marginal Value Street Trees may not be subject to the Protection of Street Trees from adjacent development requirements. However; if the Marginal Value Street Tree is to be retained as part of any works or actions in close



proximity, then activities within the crown periphery shall exclude those activities identified in Clause 4.2 of AS4970-2009 'Protection of trees on development sites'. *Please refer to Appendix 2 for details*. Where tree removal is requested for the purpose of adjacent land development or other activity where the requirements of Protection of Street Trees from Adjacent Development cannot be appropriately applied, the removal of the tree(s) will attract a one-off charge of \$400.00 per tree (subject to future market cost variations) being the costs for replacement and establishment maintenance.

### 3.6.3. Unauthorised Damage or Removal of Street Trees

Street Tree Valuations will be applied to Valued Street Trees that have been damaged or removed by unauthorised persons. In addition, persons that have taken unauthorised action in relation to a street tree may also be subject to action and penalties as detailed in Brimbank City Council's General Local Law.

Marginal Value Street Trees will not be subject to Street Tree Valuation but will attract a one-off charge of \$400.00 per tree (subject to future market cost variations) being the costs for replacement and establishment maintenance should the street tree be damaged or removed by unauthorised persons.

# 3.7. Claims for Damages Caused by Street Trees

In order to reasonably assess whether Council managed street trees are contributing to structural damage to privately owned property, the property owner is required to provide a plan of all existing on-site and surrounding vegetation within the past 10 years (preferable), investigation of soil at the base of the buildings to determine the presence, size, depth, and amount of roots present, identification to genus level of any roots found as a result of the root investigation and structural engineers and geotechnical investigation to support the claim.





# 4. **REFERENCES**

This policy document has been developed in line with the following Brimbank City Council policies and strategies:

- Brimbank Community Plan 2009 2030.
- Brimbank Council Plan 2009 2013.
- Environment Plan 2004 2007, associated documents and subsequent revisions.
- Landscape Policy 2002, associated documents and subsequent revisions.
- Urban Design Strategy 1997, associated documents and subsequent revisions.
- Tree Management Plan 2008, associated regulations, documents and subsequent revisions.
- Guidelines for Protecting, Enhancing and Managing significant natural assets 1997, associated documents and subsequent revisions.
- Code of Practice for the Protection of Council Assets 2007, associated documents and subsequent revisions.
- Road Asset Management Plan 2009, associated regulations, documents and subsequent revisions.
- Electric Line Clearance Management Plan 2009/2010, associated Acts, regulations, documents and subsequent revisions.
- General Local Law 2008, associated documents and subsequent revisions.
- Risk Management Policy 2000, associated strategies, documents and subsequent revisions.
- Social Justice Charter 2008, associated documents and subsequent revisions.
- Customer Service Charter 2006, associated documents and subsequent revisions.







The following list of publications have been used to identify current 'best practice' in arboriculture. Other and yet to be published peer reviewed publications and standards not listed may be used to determine future 'best practice'.

- Australian Standard AS4373 2007, 'Pruning of amenity trees'.
- Australian Standard AS4970 2009, 'Protection of trees on development sites'.
- Harris, R. W., Clark, J. R. and Matheny, N. P., (2004), Arboriculture Integrated Management of Landscape Trees, Shrubs and Vines (fourth edition), Prentice Hall.
- Miller, R. W., (2007), Urban Forestry Planning and Managing Urban Greenspaces (second edition), Waveland Press.
- Hitchmough, J.D., (1994), Urban Landscape Management, Inkata Press.
- Watson, G. W. and Himelick, E. B., (1997), Principles and Practice of Planting Trees and Shrubs, International Society of Arboriculture.
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# **APPENDIX A**

# ASSIGNING A MONETARY VALUE TO A STREET TREE

Trees are essential components of our environment and have an intrinsic amenity value. It is the intrinsic amenity value that often needs to be translated into a universally meaningful monetary value.

The converted amenity value of trees to a monetary value is used for many reasons. The most common use of the monetary valuation of trees is compensation. Values may also be considered when establishing tree preservation bonds on residential or commercial development sites.

Many tree valuation techniques exist and are used in Australia but none has gained national support. The establishment of an appropriate Australian tree valuation standard has been debated over the last 22 years and continues to be debated. Standards Australia released its third Draft Australian Standard in 1999 (Draft Australian/New Zealand Standard (DR 99307, 1973 – 1999 Amenity Trees - Guide to valuation, Standards Australia). Based on the repeated and ongoing revision of valuation methods, it is reasonably obvious that a universally accepted technique is still being sought in this country.

A number of other tree valuation methods exist in Australia and are used by various organisations. The methods include the Revised Burnley Method (1991), Australian Institute of Horticulture Method (1977) Revised (1996), Council of Tree and Landscape Appraisers (CTLA) Guide for Plant Appraisal (2000) 9th edition, USA, Thyer Tree Valuation Method (1984 – Peter Thyer), Helliwell System, United Kingdom (1990), and City of Melbourne – Amenity Value Formula Calculating A Tree's Amenity Value (2001).

All the methods listed above have advantages and disadvantages and all vary in the value amount achieved on any particular tree. The Thyer Tree Valuation method has been identified in a thesis prepared by Mark Garner (Forestry Honours Student at Australian National University) as the system that produced the most consistent and comprehensive results out of a range of methods tested (Garner n.d.).

It is necessary to accept each valuation method based on its merits while appreciating the limitations that might exist. Ultimately, these are the tools that are currently available for tree valuation until another system presents itself.

Trees provide many benefits to the environment and community. Apart from the obvious aesthetic qualities, trees produce oxygen, ameliorate climate, capture storm water runoff, aid in carbon sequestration, improve air quality, aid energy conservation, add to the ecology of an area, add to property values and provide a range of psychological and social benefits. Often the difficulty in assigning a monetary value to a tree is quantifying the value of these benefits in an objective and repeatable fashion, particularly when the method is undertaken by a range of practitioners.

As there is currently no one particular monetary valuation method that has achieved national acceptance across the arboricultural industry, the assigning of a monetary value to a tree based on cost of repairs and/or removal and replacement for a particular tree has merit, economic understanding and is repeatable. It is acknowledged that there are other intrinsic values attached to an urban tree, however the subjectivity attached to establishing such a



value could open up the tree valuer to scrutiny and lengthy, and at times legal, debate as to the accuracy of these perceived values.

Assigning a monetary value to a tree based on cost of repairs and/or removal and replacement are based on real economic costs, i.e. the actual costs borne to rectify or repair a tree.

1. Costs to be calculated in determining the value of a tree including:

- Costs of any report or opinion given on a subject tree. Includes consulting arborist's fees or other professional opinions, tests and investigations needed to establish the condition of the tree and recommend appropriate remedial works or to establish cost to repair, rectify or replace.
- Costs incurred to repair any damage to the tree. This would include pruning, tree surgery, soil amelioration, and cultural maintenance programs, e.g. watering programs, fertilising, de-compaction works, etc.
- 2. Costs to remove a tree and dispose of debris including the stump.
- 3. Costs for any associated works to undertake remedial tree works, e.g. community consultation, traffic control, power shutdowns, underground utility identifications, etc.
- 4. Costs for tree replacement with largest available specimen (advanced tree from nursery) of same or mutually agreed similar species to the removed tree. Costs to include all transport costs and any associated works to undertake planting of tree, e.g. community consultation, traffic control, underground utility identifications, etc.
- 5. Cost to establish tree for up to 5 years. Includes watering programs, formative pruning, pest and disease control, re-mulching and fertilising. Also includes associated costs for re-assessment and monitoring of newly planted tree. Period of tree establishment maintenance can be dependent on the size of the planting stock and also the species used. The range will be 2 year minimum to 5 year maximum.

The Tree Coordinator or delegated representative, based on current suppliers of such goods and services will establish the repair, replacement or rectifying costs assigned to the value of a tree. An average of 3 quotations for each stage of work and/or goods and services rendered should be sought.

If a tree has been removed and was particularly significant due to its size, prominence in the landscape, rarity, or other highly esteemed social value, the practitioner may compound the initial cost of repair / replacement figure for the amount of years to have a newly planted tree achieve a similar size in the landscape to the tree removed or to a stage that the tree is established and having an impact on the landscape.

A compounded or future cost depends on: 1) the original cost, 2) the number of years to reach pre-damage condition, and 3) the interest rate expected to be earned for investing that cost for the appropriate number of years (CTLA, 2000) (see table 1).

Years	5%	5.50%	6%	7%	8%
1	1.05	1.06	1.06	1.07	1.08
2	1.10	1.11	1.12	1.14	1.17
3	1.16	1.17	1.19	1.23	1.26
4	1.22	1.24	1.26	1.31	1.36
5	1.28	1.31	1.34	1.40	1.47
6	1.34	1.38	1.42	1.50	1.59
7	1.41	1.45	1.50	1.61	1.71
8	1.48	1.53	1.59	1.72	1.85
9	1.55	1.62	1.69	1.83	2.00
10	1.63	1.71	1.79	1.97	2.16
11	1.71	1.80	1.89	2.10	2.33
12	1.80	1.90	2.01	2.25	2.52
13	1.88	2.01	2.13	2.40	2.72
14	1.98	2.12	2.26	2.57	2.94
15	2.08	2.23	2.39	2.75	3.17

### Table 1: Annual interest rates compounded

The Tree Care Coordinator or delegated officer(s) will decide if a compound cost will be included in the tree valuation. The decision will be reliant on the perceived condition and significance of the damaged/removed tree, the landscape context, the desired tree for the landscape and the community's perceived expectations.

Prior to determining monetary values for trees, the condition of the tree(s) must be established. The condition of trees will affect the monetary values generated by most methods of tree valuation. It is also necessary to establish limits with regard to what trees will be valued. Trees that are dead, dying or in such poor condition that their useful life expectancy is limited shall not be assigned monetary values. Any value assigned to such trees would be negligible and open to interpretation. In actual fact, trees within these categories should probably be removed under normal tree management practices.

1. Example of tree valuation based on cost of repair. Damaged maturing, large deciduous street tree growing in street. Damaged crown by demolition of house:

Description	Cost
Arboricultural inspection and report	\$550.00
Remedial pruning works	\$850.00
Follow up assessment to ascertain works	\$120.00
TOTAL	\$1,520.00



2. Example of tree valuation based on cost of removal and replacement. Damaged maturing, large deciduous street tree:

Description	Cost	
Arboricultural inspection and report	\$550.00	
Tree removal works	\$1,680.00	
Stump Removal	\$165.00	
Largest available tree replacement including delivery	\$1,700.00	
Planting Cost	\$350.00	
Establishment maintenance costs over 5 years	\$500.00	
Follow up assessments	\$240.00	
Total	\$5,185.00	
Compound Cost		
Estimated years to reach pre-damaged size	10	
Interest rate 5.5% over 10 years (refer to Table 1)	1.71	
Total including Compound Cost	\$8,866.35	

Council will use the cost of repairs and/or removal and replacement cost to establish the monetary value of a tree until such time as an Australian Standard has been ratified.





# APPENDIX B

# ACTIVITIES RESTRICTED WITHIN THE CROWN PERIPHERY OF A STREET TREE

Adapted from AS4970/2009 'Protection of trees on development sites'.

Activities generally excluded from the Crown Periphery of a Street Tree include but are not limited to

- machine excavation including trenching;
- excavation for silt fencing;
- cultivation;
- storage;
- preparation of chemicals, including preparation of cement products;
- parking of vehicles and plant;
- refueling;
- dumping of waste;
- wash down and cleaning of equipment;
- placement of fill;
- lighting of fires;
- soil level changes;
- temporary or permanent installation of utilities and signs, and
- physical damage to the tree.



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Customer Service

**Sydenham** Station Street, Taylors Lakes (located within Sydenham Library)

Sunshine 6 -18 Alexandra Avenue, Sunshine

**Keilor** 704B Old Calder Highway, Keilor

#### Opening hours

M: 10.30am - 7pm Tu: 1.00pm - 7pm W: 10.30am - 7pm Th: 10.30am - 7pm F: 10.00am - 5pm Sa: 10.00am - 12.30pm

*Monday to Friday* 8.45am – 5pm

*Monday to Friday* 8.45am - 5pm

#### **Municipal Offices**

**Keilor Offices** 704B Old Calder Highway, Keilor

Sunshine Offices 6 - 18 Alexandra Avenue, Sunshine Opening hours

*Monday to Friday* 8.45am - 5pm

*Monday to Friday* 8.45am - 5pm