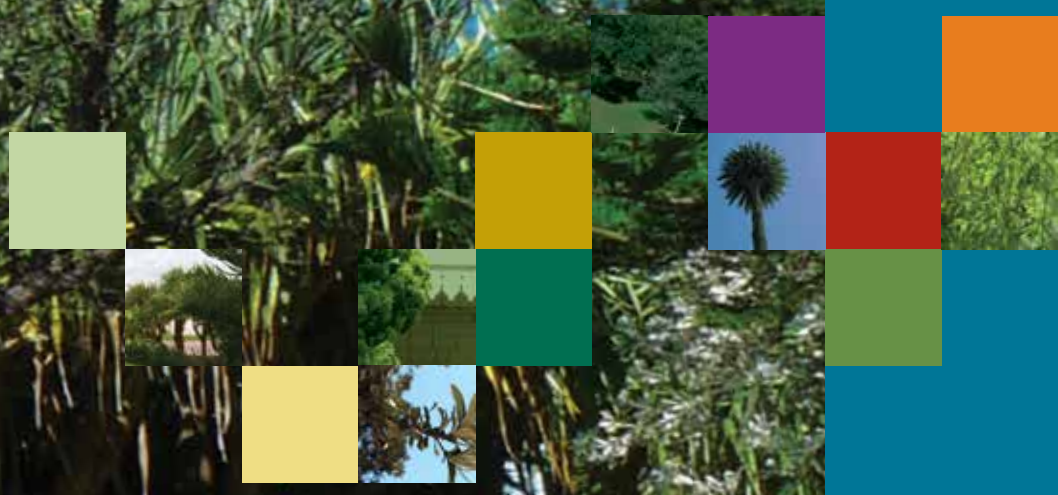
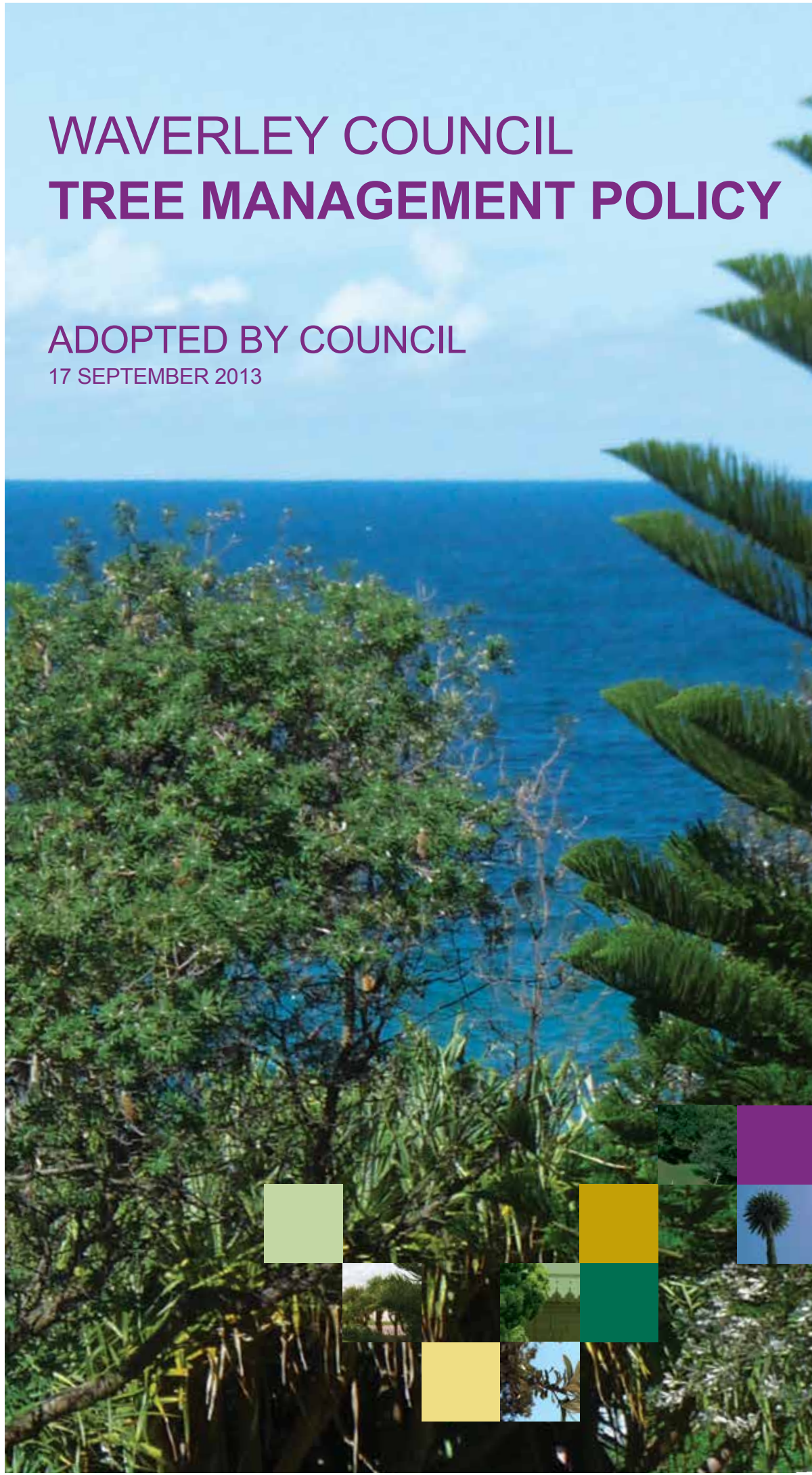


WAVERLEY COUNCIL TREE MANAGEMENT POLICY

ADOPTED BY COUNCIL
17 SEPTEMBER 2013



Waverley Council respectfully acknowledges our indigenous heritage and recognises the ongoing Aboriginal traditional custodianship of the land which forms our Local Government area.



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Introduction



Trees perform many functions. Culturally, they contribute to the character of an area and add a sense of life and place. They instil a sense of community pride in residents and can even calm and inspire. Environmentally, they provide natural air conditioning, shade, habitat for native wildlife, soil restoration and shelter against noise and wind. Aesthetically, they add natural beauty and provide a necessary softening of the built environment.

Waverley Council recognises the importance of trees and their role as a key contributor to a high quality urban environment. We are committed to maintaining the trees we have; improving their maintenance and protection and increasing the level of tree canopy cover by:

- acknowledging trees as vital urban infrastructure in our policy and strategic planning documents
- emphasising the economic and financial benefits of trees to the community, staff and developers
- ensuring there is no net loss of urban canopy cover by increasing the number of trees planted
- protecting trees potentially affected by development through regulated conditions and controls
- educating and promoting the community of the benefits of trees and the urban forest
- encouraging more planting through community awareness and special projects
- planting, maintaining, protecting and ultimately removing and replacing trees sustainably and systematically in line with Council policies and strategies.

Background

The *Waverley Council Tree Management Policy* (TMP) provides the framework for the management of all trees within the Waverley Local Government Area. It was adopted in 2007 after a comprehensive study of the key issues relating to tree management and followed a period of consultation with the community.

This review is in accordance with the requirements to review the policy after 5 years.

Since the adoption of the first Tree Management Plan in 2007 many of the strategies and actions identified have been achieved, such as:

- Tree Preservation Provision Part B5 of the *Waverley Development Control Plan* (replaces the old *Tree Preservation Order 1993*)
- *Significant Tree Register* (2011)
- Street Tree Survey and Database 2009
- *Street Tree Masterplan 2008*
- *Tree Vandalism Policy 2007*

This review incorporates these changes and also the considerable advancements in urban tree management over the last five years.

During preparation of the first TMP the community was invited to comment on tree management in Waverley through a series of community forums. People were encouraged to think about why trees are important and how trees can be managed into the future.



It soon became clear that most people share a common vision to see as much tree canopy cover as possible, within the usual constraints of urban amenity.

This important common vision consequently informs all of the principles and objectives contained in this Policy. It also shares the vision outlined in the *Waverley Together Strategic Plan*: E6 “A network of parks and coastal reserves, street trees and other plantings providing a habitat for a thriving local ecology”

The aims of the *Tree Management Policy* are to:

- identify and address all major issues relating to tree management on both public and private land in the Waverley LGA
- reflect current ‘best practice’ in tree management
- meet Council and community expectations
- improve and expand the existing tree canopy cover in Waverley
- emphasise trees as an important and valuable urban asset
- provide a clear and consistent framework for both residents and Council staff to ensure the effective, and coordinated management of trees.

For the purposes of this Policy, a tree is defined as a plant that has a:

- height of five meters or over and trunk width of 300mm or over at ground level; or
- canopy spread of five meters or over and trunk width of 300mm or over at ground level; or
- listing on the *Waverley Register of Significant Trees*.

Policy Context and Relationship to Other Documents

This policy replaces the *Tree Management Plan (2007)*.

It has been developed in accordance with the following Council plans and policies:

- *Waverley Development Control Plan Part B5 Tree Preservation*
- *Street Tree Masterplan (2008)*
- *Tree Vandalism Policy (2007)*
- *Significant Tree Register (2012)*
- *Waverley Heritage Inventory List*
- *Environmental Action Plan 2 (2009)*
- *Public Domain Technical Manual – Bondi Junction (2012)*
- *Waverley Together 2 Strategic Plan*

Legislative Context

Acts, Regulations, Standards and Environmental Planning Instruments relevant to this policy:

- *Environmental Planning and Assessment Act (1979)*
- *Waverley Local Environment Plan (2012)*
- *Waverley Development Control Plan (2012)*
- *Roads Act (1993)*
- *Work Health and Safety Act (2011)*
- *Electricity Supply Act (1995)*
- *Australian Standard AS4373 – Pruning of Amenity Trees*
- *Australian Standard AS 4970 – Protection of Trees on Development Sites*
- *Workcover Code of Practice – Tree Industry (1998)*

Chapter 1

Key local issues



The community consultation carried out by Council as part of the development of the original Policy included community meetings and consultation sessions with residents, Council staff, Councillors, members of the Bondi and Basin Chamber of Commerce, and staff from the NSW Heritage Office and neighbouring Randwick and Woollahra Councils.

As part of these consultations it emerged that trees are valued because they:

- add character to precincts
- protect the environment
- provide natural air conditioning
- maintain important habitats, particularly for native birds
- offer shade
- soften development and infrastructure
- add life to streets
- instil a sense of pride in a place
- calm and inspire
- improve air quality
- improve the soil (chemically and physically).

As a result of these consultations a number of issues relating to tree management arose in the discussions. Many of these are still relevant with regards to this review and together with recent emerging concerns are examined in further detail below:

1.1 Tree preservation legislation and tree assessment

Waverley Council has a legal obligation to preserve trees and vegetation under the provisions of the *NSW Planning and Assessment Act 1979* and the *Waverley Local Environment Plan*.

The Local Environmental Plan (LEP) is the principal environmental planning instrument used by councils to regulate land use and influences planning and development decisions within the Local Government Area (LGA).

The LEP is prepared and gazetted by the State Government in accordance with the *Environmental Planning and Assessment Act 1979*, giving legal effect to where and under what circumstances places can be developed or environmental controls put in place. It is made up of a written instrument and maps and came into effect on Friday 26 October 2012.



The LEP contains zoning and land use information, specifying what uses are permitted or prohibited in each zone, development controls such as height of buildings, floor space ratio and incentives for affordable housing, provisions for the reservation of land, protection of trees (Clause 5.9 Preservation of Trees or Vegetation) and heritage conservation, as well as a number of other environmental requirements.

The Development Control Plan (DCP) supports the controls outlined in the LEP with more specific planning and design guidelines relevant to the Waverley LGA. The Waverley DCP sets out the requirements for tree preservation under Part B5 – Tree Preservation and replaces the previous Tree Preservation Order (TPO).

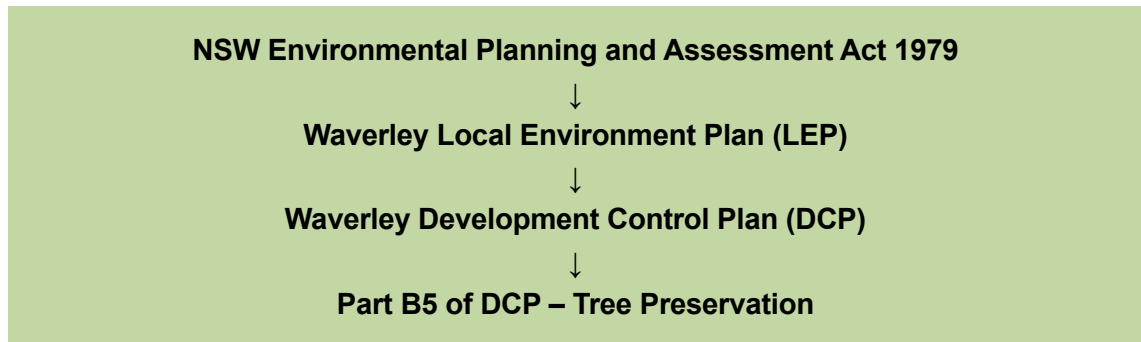


Figure 1: Planning Process

TREE ASSESSMENT

In Waverley, assessment of trees for pruning or removal is based on:

- a. **Visual Tree Assessment (VTA)** of each tree. This is a world-wide arboricultural industry standard of assessing a tree/s from ground level looking for any external signs of decay, physical damage or growth related structural defects. This method ascertains whether there are grounds for removal or if there is a need for a more detailed inspection of any part of the tree. It does not include specialised assessments such as tree decay, aerial inspection, pathology diagnosis of any pests or diseases or risk assessment.
- b. **Urban Value Assessment** of the tree/s to the landscape character of the area i.e. is the tree visually prominent and does it contribute to the character and local identity of the area. Other factors include the tree's age, size, or uniqueness.

CRITERIA USED IN ASSESSMENT

When inspecting a tree the following criteria form part of the tree assessment:

- the size and health of the tree
- the effect on the health of the tree from proposed branch or root pruning
- any contribution the tree makes to the natural landscape or scenic value of the land or the locality
- the tree's intrinsic value to public amenity
- the cultural value of the tree (its status as a landmark specimen and in defining local streetscape and character, its historical status, listing on the Waverley Significant Tree Register)
- the occurrence (or lack of) other vegetation and whether appropriate replacement species can be planted
- any contribution the tree makes to the local ecosystem and biodiversity

- the assessment of trees that pose imminent danger to property or life in the context of:
 - the structural soundness of a particular tree
 - the characteristics and history of a particular species
 - ill health, such as allergies, where specific evidence is provided by an expert in the relevant medical field (Dermatologist or Allergist) and a link between the ailment and the species is reasonably established
 - traffic hazard in proximity to a roadway intersection, driveway or pedestrian walkway
- whether there is a severe obstruction of sunlight to a window as prescribed by minimum development standards for solar amenity
- whether a tree is causing structural damage to a building, water main or sewer
- whether a tree should be replaced with a more suitable species given its proximity to services such as overhead power lines
- any contribution the tree makes to privacy, landscaping, garden design, heritage values or protection from the sun, wind, noise, or the amenity of the land it is on.

Often, applications for tree removal may be based on a history of problems or hazards not evident at the time of inspection e.g. damage to buildings; blocked sewers; previously fallen branches; etc. It is the applicant's responsibility to provide sufficient information and background to support the application. This information may be in the form of a report from a consulting arborist, licensed plumber, pest controller or structural engineer depending on the nature of the problem. If there is insufficient information the application may be refused or deferred until further evidence is supplied.

A number of applications for tree removal are received by Council because of a perceived danger of branch or trunk failure. In assessing a tree for removal on grounds it is dangerous an evidence based assessment as detailed above is used.

OTHER ASSESSMENT CRITERIA

The Land and Environment Court regularly adjudicates on disputes between neighbours over trees through the *Tree Disputes between Neighbours Act 2005*. The principles applied by the court are also used as a guide in tree assessment:

"we are satisfied that it is not appropriate to order the removal of, or significant interference with, the tree on the basis of its dropping its leaves, twigs and the like on the applicants' property."

"as discussed in the principle, for people who live in tree urban environments, there is some necessary degree of assumption of housekeeping required in order to appreciate and retain benefits of having such a treed urban environment."

WHEN CONSENT MAY BE GRANTED

Taking into account the above, consent may be granted for:

- removal of unsuitable or hazardous trees
- thinning of crowns to preserve solar access, some selective pruning and reduction of the weight of limbs
- maintenance pruning to remove dead, diseased, dying and defective branches
- selective pruning to remove branches causing conflict through encroachment on own or neighbouring buildings
- root pruning of trees to ameliorate damage to built and natural structures in such a manner as to not compromise the health of trees
- pruning for service lines



- lifting of crowns to allow pedestrian or vehicular access
- pruning for vehicle sight lines, signage and RMS requirements
- removal of trees in conflict with built structures, where all engineering alternatives have been considered
- construction/extension of buildings where there is no alternative to maintain the tree/s
- minimum work to ensure trees remain safe
- pruning and removal of fruit trees and flowering fruit trees not located on a heritage listed property or the *Register of Significant Trees*, depending on the species in question.

ADDITIONAL EXEMPTION PROVISIONS

Additional Exemptions have been included in the Tree Preservation DCP and therefore a tree permit application is not required for:

- trees listed on the Exempt Species List. These include:

BOTANIC NAME	COMMON NAME
Celtis sinensis	Hackberry
Citrus spp	Citrus
Ligustrum sinense	Narrow leaved Privet
Ligustrum lucidum	Broad leaved Privet
Nerium oleander	Oleander
Olea africana	Wild or African Olive
Salix spp	Willows
Syagrus romanzoffianum	Cocos Palm
Toxicodendron spp	Rhus Tree

- dead trees, except if the tree may provide habitat for species listed in the
- Threatened Species Conservation Act 1995. Evidence prior to removal of the tree must meet criteria as outlined in Council's Tree Technical Manual
- the removal of dead branches, palm fronds or palm fruit. Council encourages pruning works to be done by a qualified arborist and in accordance with AS4373 – Pruning of Amenity Trees
- the pruning of a hedge by no more than 20 per cent of its height or width in any 12 month period, so that the overall height is not reduced by over 1.5 metres
- pruning of branches that are within the set parameters of electric power lines, as required by the *Electricity Supply Act (1995)*
- the removal/trimming of trees and vegetation is in accordance with the *Roads Act 1993*
- tree work by Council, the State Emergency Services, the Rural Fire Service of NSW, or a public authority in response to an emergency
- remedial pruning required to make a tree safe in response to severe storm damage or sudden branch failure. Council, by way of an application should be contacted to assess the remainder of the tree to determine if the tree should be pruned or removed
- works carried out by state or federal government departments or authorities under current legislative requirements.

See Chapter 4 and the appendices for further information on tree assessment.

1.2 Urban forest and canopy cover

In 2003 the NSW Local Government Association endorsed an Urban Forest Policy. It defines urban forest as “the totality of trees and shrubs on all public and private land in and around urban areas, including bushland, parkland, garden and street trees, and is measured as a canopy cover percentage of the total area” (Local Government Association of NSW, 2003).

Strong feedback was received from the community that there should be an increase in the canopy cover in the Waverley Council area as: “trees provide relief from the concrete jungle” and because Waverley should be “as green as Woollahra”.

INCREASE THE PERCENTAGE OF CANOPY COVER

The ideal of the urban forest is to increase and enhance the percentage of tree canopy cover to achieve the maximum ecological, economic and social benefits from trees.

Recent canopy cover targets adopted by inner city Councils in Sydney include the following percentage cover:

- average tree cover counting all zones: 40 per cent
- suburban residential zones: 50 per cent
- urban residential zones: 25 per cent
- central business districts: 15 per cent.

The current percentage of canopy cover in Waverley is yet to be determined, and more detailed analysis of what percentage is private, public, park and institutional will soon follow in an Urban Forest Strategy.

Council may set targets for percentage of canopy cover or may instead determine a percentage increase of the current level of cover.

By this method, the policy of increasing annual tree planting numbers will be consistent and methodical. Further research will be undertaken to establish the appropriate percentage of canopy cover as well as to determine the feasibility of such targets within the constraints of Council’s current and projected resources.



Excellent canopy cover in a Waverley street



1.3 Tree selection

WHAT IS A NATIVE TREE?

The definition of a native tree species is generally interpreted as one that would have been growing in Waverley at the time of European settlement. However, it also interpreted as:

- endemic (in other words, found only in this specific location)
- locally indigenous (found in Waverley prior to European settlement but can be extended to include Sydney's eastern suburbs)
- native (broadly found in Australia).

The first definition excludes any species naturally growing outside the Waverley area, which is plainly not practicable; while the third would include species from tropical and Mediterranean climates that could out-compete locally indigenous species. The second definition is therefore the most useful since it includes a range of species likely to grow in Waverley.



The Coastal Banksia (Banksia integrifolia) is a locally indigenous species

NATIVE VERSUS EXOTIC?

The Triassic Hawkesbury Sandstone of the Waverley LGA has traditionally supported Coastal Sandstone Heath, Sydney Sandstone Ridge-top Woodland and small areas of Sydney Sandstone Gully Forest.

Being so close to Sydney, the area was quickly settled and the onset of agriculture, manufacturing and a greater density of residential use meant that almost all of the remaining vegetation was swept away. Today, just 0.6 per cent of total land area remains. Only eight significant examples of local indigenous vegetation remain in Waverley; these are scattered along the coastline but do not form a continuous corridor.

European settlement introduced a variety of exotic trees, as well as some Australian species that had not previously been found in the area. Some, such as Ficus 'Hillii' (Hills Fig) and Phoenix canariensis (Canary Island Date Palm) are of cultural significance.

In Waverley today, the majority of trees currently selected for public planting are 'native' with a small percentage of deciduous exotic trees chosen to allow for solar-access to narrow-fronted properties. A minimum of 200 new street trees are planted each year.

Native plants are seen as preferable largely for environmental reasons (habitat; water retention in upper catchment; drought tolerant; often less maintenance; and better soil stabilisation) and because of their contribution to developing a local landscape character/identity.

Nonetheless, it was also recognised that on occasions exotic trees may be the only suitable choice in particular planting situations and that the planting policy should, incorporate a degree of flexibility in relation to planting non-indigenous and sometimes deciduous species in identified selected areas—especially in heritage areas, commercial zones and in instances where issues of solar access need to be considered.

ENCOURAGING LOCALLY INDIGENOUS TREE STOCK

As noted earlier locally indigenous species are environmentally valuable and contribute to an 'authentic' local character. Council actively promotes locally indigenous planting by:

- identifying appropriate locally indigenous tree species, in its Street Tree Masterplan
- using locally indigenous tree species through forward planning and providing tube stock of less common Sydney species
- trialling locally indigenous shrubs as street and park trees
- promoting locally indigenous species to residents through annual Free Tree Program
- developing an education program for residents. For example, the Adopt a Tree program and the Gardening with Native Plants workshops. Further information can be found in the environment section of Council's website
- favouring locally indigenous tree species in all Development Control Plans, Plans of Management and Strategic Plans
- encouraging residents to use local native nurseries e.g. Randwick Council Nursery.

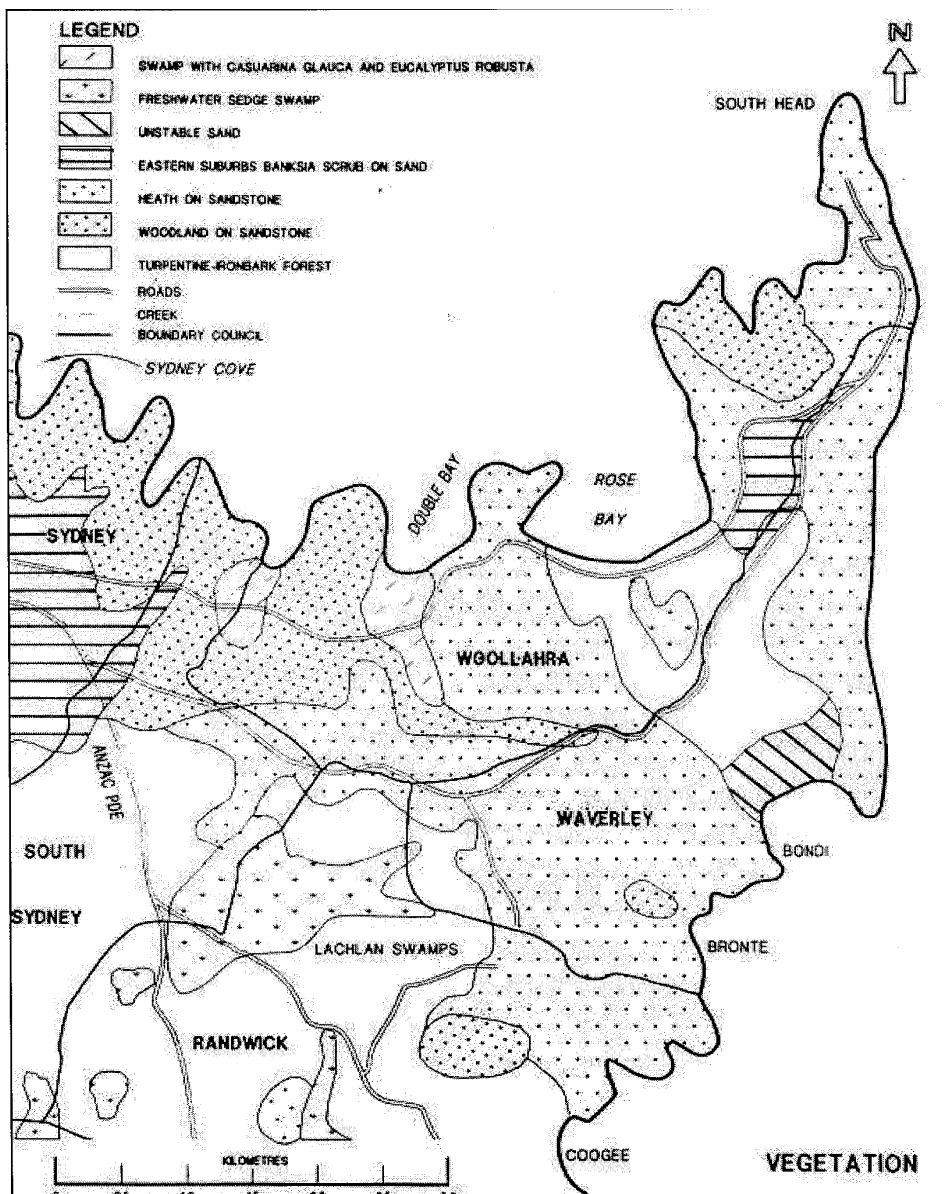


Figure 2: Original plant communities in the Waverley Council area (Benson and Howell, 1990)



TREE PLANTING TO REFLECT LOCAL CHARACTER

It is important that the selection and maintenance of trees contribute to and support the local character of a particular site. In certain streets an avenue of trees may help to define and enhance existing heritage, environmental and architectural features.

The Waverley Street Tree Masterplan recognises these values and continues to support the use of locally indigenous and native trees.

STREET TREE PLANTING BY RESIDENTS

Council encourages the community to become involved in tree planting in their street and neighbourhood by registering their interest with the Adopt a Tree program or by contacting Council to request a tree be planted outside their property.

Street tree planting if carried out by residents without consultation with Council, however well meant, may unintentionally create problems with regard to sight lines for drivers and pedestrians, inconsistency of streetscape planting, damage to Council and/or private property or public liability claims.

Trees planted on Council property become Council responsibility and the legacy of such tree problems may not be fully evident for more than 10 years.

Council therefore reserves the right to remove inappropriately planted trees. Residents who would like trees planted in their street are strongly encouraged to contact Council staff first so that chosen trees are consistent with the existing streetscape and the street tree masterplan.



This Bracelet Honey-Myrtle is locally indigenous but has a short lifespan.

1.4 Trees and views

Many residential suburbs of Waverley enjoy beautiful views of the ocean, Sydney Harbour and the city. Obscuring these views by trees on public or private land can be an issue of some controversy in Waverley.

Council will not prune a tree to create a new view. View pruning will only be considered where it is requested to retain a previously established view and there is a history of the identified tree/s being pruned to restore the pre-existing view. Trees can often improve and frame views and are usually an aesthetic element in the view itself. Where a private view is likely to be affected by the planting or replacing of trees in a street or park, Council will continue its policy that no individual exclusively owns a view, but rather that the amenity provided by trees outweighs the amenity of views.

New planting in public open spaces will consider the impact on views and species will be selected and placed to frame and complement views in consultation with residents.

A tree may be considered an obstacle to views, a natural frame, or integral to the view itself.



1.5 Tree vandalism

Vandalism of public and private trees not only affects adjacent neighbours but also whole streetscapes. The wider community also suffers through the gradual attrition of mature trees from the urban landscape. Council presently responds to incidents of tree vandalism by:

- investigating all reports and gathering information
- sending notification letters to residents requesting further information
- erecting signs in streets and parks highlighting the damage
- publicising significant and blatant attacks through local newspapers
- prosecuting through the courts wherever possible.



Vandalism attack on a mature street tree

Part B5 – Tree Preservation of the Waverley Development Control Plan sets out penalties for vandalism to trees on public and private property. The Waverley Tree Vandalism Policy 2007 outlines procedures for responding to attacks on trees

1.6 Biodiversity

Maintaining biodiversity is one of the major aims of the *Waverley Together 2* Strategic Plan. One way of achieving this is to create a linking network of green corridors within the Woollahra, Waverley, Randwick and Botany Local Government Areas. For example, Centennial Park, Moore Park and Queens Park are habitats that can be linked to remnant vegetation sites near the coast in neighbouring Randwick and Woollahra Councils.

Biodiversity – Part B3 of the *Waverley Development Control Plan* recognises the importance of preserving and enhancing remnant vegetation and habitat corridors. The objectives, controls and maps of Biodiversity – Part B3, identify habitat corridors that link fragmented patches of bushland. By protecting and enhancing these areas, the migration of wildlife and the natural dispersal of native plants will be improved.

With tree management, part of the selection criteria for existing and proposed trees involves assessing the contribution they make to local biodiversity and maintaining habitat corridors within and beyond the boundaries of the Waverley LGA. A range of tree species from shrubs to large trees will support a greater variety of native fauna, as will planting and preserving trees in parks and private properties to retain and enhance urban habitat. However, a holistic approach is required in open space planning to achieve effective habitat corridors through the use of layers of vegetation from trees to shrubs to groundcovers.

1.7 Pedestrian links

Council is also committed to providing easy-to-access 'green links' for pedestrians as well as for native fauna. The Green Links project improves accessibility in and around Waverley by developing pedestrian links between large areas of open space such as parks, beaches, schools and commercial centres. It proposes that pedestrian routes be shaded and avoid roads where possible. These links will be green, clean, safe and promote a sense of wellbeing within the community by encouraging people to walk rather than rely on cars for short trips.



The role of tree management within this project is to:

- integrate tree planting with existing and planned pedestrian corridors, travel-to-school links and public transit corridors and facilities
- provide maximum shade and canopy cover to encourage pedestrian usage
- integrate tree planting with regional and sub-regional bicycle routes—current and planned
- encourage the use of neighbour's trees where street tree planting is limited and for the planting of backyard fruit trees along private lanes.

1.8 Public tree removal and notification

Where substantial or prominent trees may need to be removed, Council policy is to notify adjacent residents two weeks in advance.

Council's street tree database lists the health and condition of trees as: excellent; good; fair; poor and dead. Trees listed as dead or in poor condition are removed without notification. Wherever possible, they will be replaced with advanced trees during the allocated planting season from April to October.

1.9 Communication

To improve the recognition and importance of trees in the community, Council will promote public awareness of the value and care of trees by:

- producing education material and brochures explaining the benefits of trees
- increasing the amount of information about trees on Council's website to include species selection, soil, planting techniques etc
- highlighting the positive contribution of trees in Council's community courses
- encouraging the community to become involved with the Adopt a Tree program
- developing a display of a locally indigenous garden on Council land
- educating through community interaction and website information about the value of trees.

Chapter 2

Trees in streets



2.1 Tree pruning and maintenance

Pruning is an effective way of minimising or eliminating a number of risks including:

- low branches near footpaths and roads
- routine maintenance to remove defects such as dead branches, crossing branches
- canopy thinning within tree tolerances to allow for street lighting and solar access
- storm damage
- sight lines clearances for signs and traffic lights.

Pruning practices are aimed principally at preserving the overall health and vigour of the tree.

Council's internal tree management guidelines are consistent with the Australian Standard AS4373 – Pruning of Amenity Trees; Workcover Code of Practice – Amenity Tree Industry; and Workers Health and Safety requirements.

PRUNING FOR CLEARANCE OF ELECTRICITY WIRES

Pruning under electricity cables to the minimum clearances is authorised under Section 48 of the *Electricity Supply Act 1995* which effectively overrules council-originated Tree Preservation Orders or Development Control Plans and other environmental planning instruments, but not State heritage or protection orders.

Pruning works within three metres of power lines can only be carried out by suitably qualified personnel and in Waverley's streets the safety clearance standards are:

- 1.5 metres from low voltage overhead mains, and
- 0.5 metres from low voltage overhead Aerial Bundled Cables (ABC).

These safety clearances have been determined to ensure reliability of power supplies and help prevent personal injury and damage to property.



Excessive tree pruning by electricity tree contractors

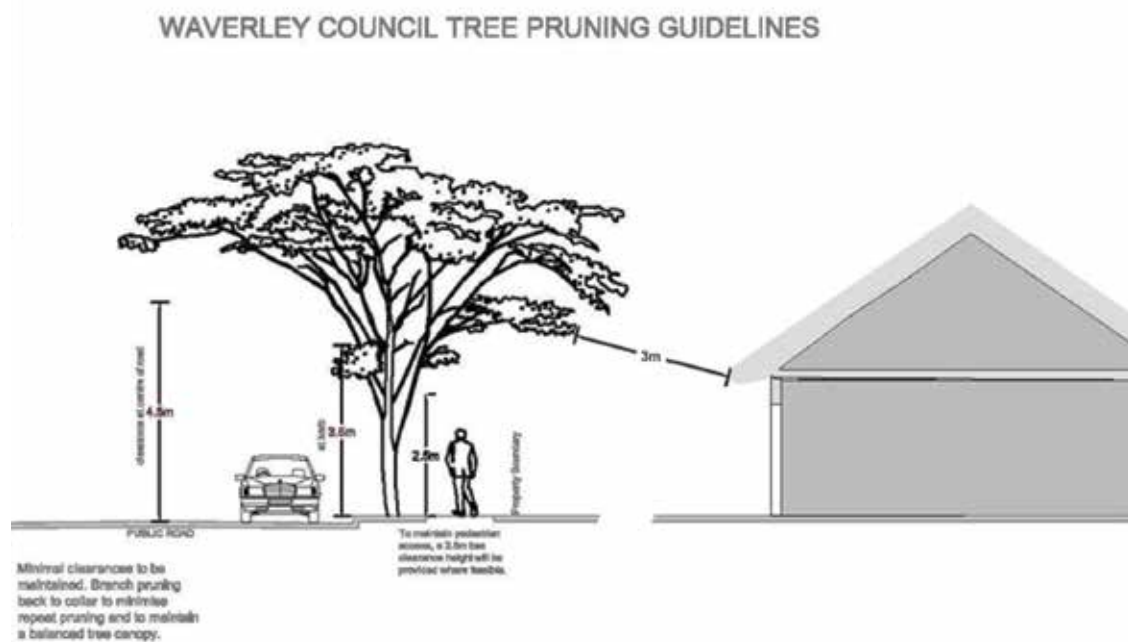


PRUNING CLEARANCES FOR STREET TREES

To provide safe access for pedestrians and vehicles, street trees are pruned to the following maximum clearances:

- pedestrian access to 2.5 metres
- vehicle access at kerbside of 3.5 m increasing to 4.5m at the centre of the road
- branches overhanging into properties to be 3 metres clear of structures.

Trees are pruned to Australian Standards 4373 – Pruning of Amenity Trees to maintain tree structure, health and condition.



2.2 Requests for tree pruning or removal

Requests for pruning or removal of public trees are investigated by the Tree Management Unit.

Council's qualified arborists conduct inspections using the methods of visual tree assessment (VTA) and urban assessment as described in the appendices.

Criteria used in assessing public trees for pruning or removal include:

- the health, condition and structure of the tree
- the pruning history of the tree e.g. previous pruning in response to branch failure
- location of the tree in relation to buildings and structures
- the tree's amenity value to the area e.g. streetscape
- whether the tree forms part of an avenue planting; habitat corridor
- the suitability of the species to the location.

The shedding of leaves, fruit or flowers is not considered sufficient reason for excessive pruning or removal of a street tree.



Emergency work to a street tree

2.3 Tree issues

Street trees are planted along road reserves and verges, laneways and occasionally footpaths and in the road itself; they are usually chosen for their shade and visual appeal.

However, at times, there can be conflict between trees and the urban environment.

Where damage to public spaces including footpaths and streets is suspected to have been caused by tree roots, residents are asked to contact Council's Customer Service Centre to allow for investigation.



Concrete kerb, gutter and footpath replaced with bitumen to minimise damage to tree roots

SUSPECTED DAMAGE TO SEWER OR STORMWATER LINES

Tree roots will not enter a stormwater or sewer line that is intact and not leaking. Unfortunately, many properties in Waverley have old terracotta pipes that have degraded, subsided or have perished jointing seals. If a pipe has subsided or a seal has broken the repair of these pipes is considered a maintenance issue and the responsibility of the owner to repair.

SUSPECTED DAMAGE TO STRUCTURES

If damage to private property structures is suspected to have been caused by tree roots from a Council tree, property owners are asked to contact Council and to provide evidence to substantiate the alleged damage.

An initial inspection is then made by the Tree Operations Supervisor from outside the premises to determine if street tree roots may be the cause of the damage.

If the area of damage is located within the property the owner is required to show proof of the presence of tree roots. This may involve excavating or exposing the affected area to show if tree roots are present; what size the roots are; and their exact location. This is standard procedure because:

- many residences are structurally very old with shallow or non-existent footings to foundations and old earthenware drainage pipes
- pipes or foundations may have collapsed due to deterioration or subsidence and not from tree root damage
- other trees on the resident's or neighbour's property may be the cause of damage
- all liability disputes require an onus of proof which remains with the property owner.

Removal of a street tree is only undertaken as a last resort and only if the tree is assessed as not being a valuable part of the streetscape and only if there are no feasible alternatives or if all previous treatments have failed to abate the nuisance.

Council will continue its current policy of requiring proof of property damage where street trees are alleged to have damaged private property.

2.4 Street tree planting and replacement

To ensure successful street tree planting provides the maximum benefits to the community the following considerations are critical in tree selection and planting:

- a. **Site planning and design:** sufficient space is provided above and below ground avoiding utilities and structures and canopy spread free from interference with



structures to allow a tree to reach its mature height and width with minimal pruning.

b. Sufficient root space and crown volume:

there is enough soil volume available for future root growth and minimal disturbance to infrastructure.

c. Tree selection: species are selected from the Street Tree Masterplan that meet the physical and environmental constraints of the site and quality tree stock are used.



Successful street tree planting in Warners Avenue

STREET TREE REPLACEMENT

The majority of urban trees have a life span of between 20 to 80 years due to the constraints of growing in a built up environment. Many of our mature trees are reaching the stage where they are dying or in decline due to age, poor quality soils, pollution stress, tree root damage or a combination of some or all of these factors.

Trees may also need to be removed for a variety of reasons from vandalism; poor species performance; damage to underground utilities that can't be repaired etc. Often though, it is because they are over-mature and naturally start to decline and may become hazardous.

The street tree masterplan and database have listed and identified the condition of over 10,000 street trees which will greatly assist in planning any staged removal and replacement programs.

Wherever possible, the community is notified of tree removal and replacement works. At times, though, emergency tree removal is sometimes necessary and may preclude advance notification of the works to the community.

To ensure there is no net loss of urban canopy cover as trees are removed, a replacement tree will be planted as soon as practicable. If tree removal occurs late in the planting season planting may be held over until the next season. To minimise the loss of tree canopy cover, replacement planting will use advanced trees.

Occasionally, residents may request a replacement tree is not planted. Consideration will only be given for not planting where there is:

- sightline restrictions
- a history of damage to underground services that are unable to be repaired adequately to allow for replacement tree planting
- insufficient clearance from utilities.



Street trees in Bondi Junction to soften building impacts and provide amenity

TREE PLANTING BY RESIDENTS

Any street tree planting carried out by residents without consultation with Council may be well meant but could unintentionally create problems with regard to:

- sightline difficulties
- inconsistency of trees in the streetscape
- future damage to Council and/or private property
- public liability claims or the added difficulty of ongoing maintenance.



Tree notification for removal

Trees planted on Council property become Council responsibility and the legacy of such tree problems may not become evident for up to 10 or more years.

When notified of street trees planted without Council authorisation, we will consult and discuss with residents to reach a suitable outcome by looking at options such as pruning or transplanting. However, if there are no alternatives we will reserve the right to remove inappropriately planted trees and replant, where possible, with a more suitable tree consistent with the street tree masterplan.

2.5 Public consultation and notification

Whenever healthy public trees require substantial pruning or removal, particularly if it will affect the visual appeal of streetscapes or adjacent properties, residents will be notified a minimum of two weeks in advance.

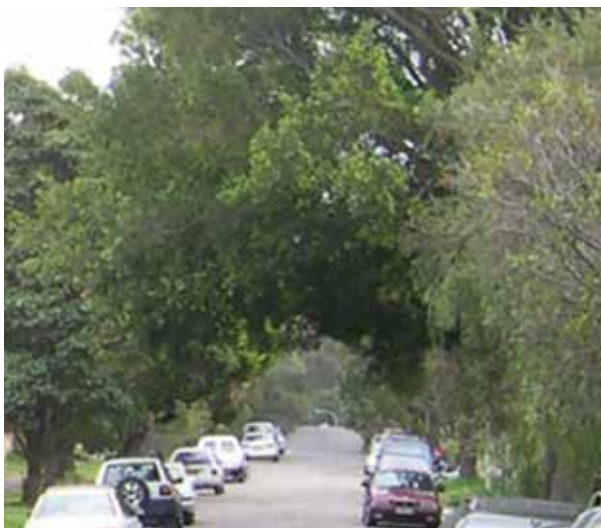
2.6 Tree species diversity and tree selection

There are differing views about the value of having just one species of tree planted in a single street. Some people think a more uniform approach adds to the visual appeal by creating a delightful 'avenue' of trees; others feel that varying the number of species provides greater biological diversity and contributes to the viability of native fauna habitats.

Appropriate species selection is the most cost-effective way of reducing the potential for damage caused by trees in the built environment. The Waverley Street Tree Masterplan and Bondi Junction Technical Manual provide a framework for street tree planting.

In considering suitable species selection the site criteria include:

- width of planting opportunity on nature strip, tree planting square, road shoulder or median strip
- soil depth and type
- street orientation and aspect for shade and sun
- existing character or 'avenue of trees' in the street
- traffic volume and speed
- location of crossings and traffic lights



Typical Waverley street trees, providing shade and softening the landscape.



- overhead obstructions or constraints and underground services
- pedestrian and vehicle use and need for visibility
- access for street cleaning equipment and garbage collection vehicles
- choosing species that have performed well in similar sites or in the same street
- feedback from community consultation.

Horticultural selection criteria include:

- habit of growth
- physical form
- visibility around trunk and canopy
- pollution tolerance
- drought tolerance
- growth rate and longevity
- weed potential for urban bushland and private property
- maintenance/creation of habitat and promotion of species diversity
- tolerance of compacted soils with low aeration or poor drainage
- avoiding species with excessive leaf/fruit drop and invasive roots.

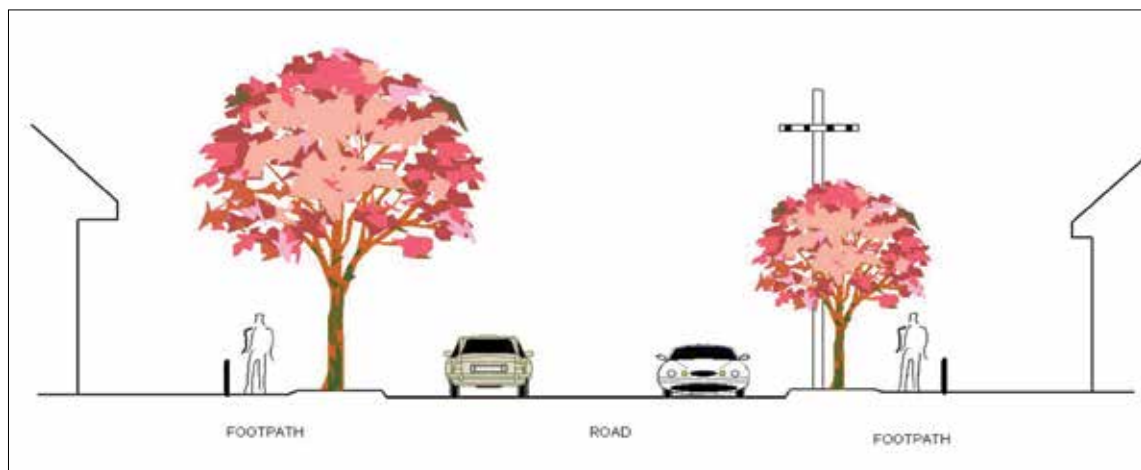
Changes to the Waverley Council Street Tree Database have been designed to capture the essential aspects of the above criteria so that decisions about street tree selection can be made by matching the site conditions with a suitable species from the Street Tree Planting Species List.

2.7 Vehicle access and crossovers

Vehicle access and driveways can sometimes generate issues relating to mature and established street trees.

Street tree planting is co-ordinated to be sited close to property boundaries and at sufficient distance from potential crossover locations.

However, applications for crossovers and driveways may sometimes conflict with street trees. Council will assess each application on merit and promote alternatives to vehicle crossovers where they require removal or damage to mature verge trees.



A tall species and a smaller species can be planted in the same street, if site conditions permit

Chapter 3

Trees in parks



This chapter refers to all trees situated within Council's parks, reserves, publicly owned sportsgrounds and bushland and drainage reserves. It covers Council-owned land and Crown Land administered by Council. Waverley's public open space includes:

- 'natural' areas (including bushland, foreshore, cliff-face and watercourse)
- sportsgrounds
- parks and reserves
- areas of general community use.

Some of the main issues concerning trees in parks are similar to those of street trees, namely maintaining open views, species and selection, over-pruning, and integrating trees with pedestrian and habitat corridors.

3.1 Maximise aesthetics and amenity in parks

Planting trees within open public spaces should improve the appearance of an area and contribute to its overall amenity. The design principles for trees in parks should maximise screening, shade, and biological diversity.

Mature and significant trees can also define the character and usage of parks. To improve the recognition of the value of park trees Council should:

- undertake a condition survey of all park trees and determine a hierarchy of maintenance of parks and reserves and target high-use sites
- recognise high value trees through listing as heritage items or as significant trees
- ensure high-use parks and reserves receive a higher level for maintenance of trees
- provide opportunities for tall growing species in larger parks.

In future design of public space every attempt will be made to take advantage of existing mature trees and to incorporate indigenous species from local seed stock wherever possible.



Recent planting of a Port Jackson Fig tree in Waverley Park.



3.2 Remnant vegetation and habitat corridors

Remnant vegetation or bushland is taken to be the original (pre – 1788) native vegetation which has survived to this day. It includes both undisturbed and disturbed vegetation. It also includes remnant vegetation which has colonised disturbed areas, where there was no vegetation for a period. The native plant species that grow within these remnants are referred to as indigenous. Remnant vegetation does not include native species that have been planted or introduced to the area.

Habitat corridors are areas where vegetation provides sufficient habitat features to allow wildlife to move from one area to another.

The Part B3 – Biodiversity provision of the Waverley DCP recognises the importance of these areas with maps showing their location and development controls to protect and enhance the remaining areas.

Only 5.9 hectares of remnant bushland remain in the Waverley LGA concentrated mainly on the coast and in fragmented areas away from the coast. Parks and open space are an integral part of wildlife and bird habitat and every opportunity should be taken to increase biodiversity within the LGA.

When linked areas of open space or ‘habitat corridors’ are planted with native and locally indigenous tree shrub and groundcover species they provide a habitat of sufficient size to support small native fauna, especially when integrated with the understorey of shrubs and groundcovers naturally associated with that vegetation community.

These habitat corridors should work towards linking areas of remnant vegetation, beach parks and adjacent public open space, pocket parks, schools and other institutional sites where there is opportunity for planting trees, shrubs and groundcovers.

The biodiversity maps in the appendices section of the Waverley DCP show the remaining native fauna habitat patches and identify existing and potential habitat corridors. Ideally, many parks within Waverley and in particular coastal parks should be integrated into this corridor system.

3.3 Increased canopy cover

The management of park trees is a significant factor in maintaining and increasing the percentage of tree canopy cover within the Waverley LGA. To achieve this aim Council will:

- determine the existing canopy cover within Council’s public open space
- produce an inventory of trees in Council’s open space. Like the Street Tree Database, this will help when planning the replacement of existing species as they decline and reach their Useful Life Expectancy. It also helps when planning habitats and corridors for wildlife, creating pedestrian links and increasing canopy cover
- add trees of historic, cultural, scientific, aesthetic, botanic and horticultural significance to Council’s Register of Significant Trees.

3.4 Crime prevention through environmental design (CPTED) principles

The aim of crime prevention through environmental design (CPTED) is to make crime harder to commit through well thought-out design of the physical environment. The idea is to make crime more difficult to commit, increase the risk of detection and reduce opportunities for concealment. CPTED principles generally apply to open spaces and strategies such as providing better lighting and reducing dark and spaces can make a real contribution to increasing the safety of an area.

Trees in open spaces should be chosen so that their height, width and foliage cover do not provide opportunities for concealment and do not discourage legitimate park-goers from visiting local open spaces.

3.5 Plans of Management

The *Local Government Act 1993* requires that all community land (as defined under the Act) is the subject of a plan of management. The majority of Council's parks and reserves are classified as community land and therefore require plans of management.

A tree management plan is integral to a park plan of management and provides effective management strategies for the maintenance and conservation of park trees. The plan should also provide long term strategies for tree removal and replacement consistent with the vision for the park.



Solid tree protection in a well used park



Chapter 4

Trees on private land



Trees on private land are found on land belonging to residents, commercial enterprises, community groups, private institutions such as hospitals and churches, and state and federal government agencies like schools and local government.

Trees on private land are valued and treasured because they:

- provide privacy
- help to soften unattractive buildings or outlooks
- provide natural cooling
- enhance wildlife corridors
- contribute to the character of the area.

'Leafy' suburbs are recognised as desirable and attractive places to live and trees can significantly enhance residential property values.

4.1 Part B5 – Tree Preservation of the Waverley Development Control Plan

Part B5 – Tree Preservation of the *Waverley Development Control Plan* (DCP) was formed under the provisions of the *Waverley Local Environment Plan*. This provision replaces the previous *Tree Preservation Order* (TPO) of 1993.

An application is required to do work on any part of a tree above or below ground. This applies to any tree with a:

- height of five meters or over and trunk width of 300mm or over at ground level; or
- canopy spread of five meters or over and a trunk width of 300mm or over at ground level; or
- listing on the *Waverley Register of Significant Trees*.

EXEMPT TREES

The trees listed in the table below are exempt and do not require a permit for removal. However, Council must be notified a minimum of seven days prior to removing any exempt trees.

BOTANIC NAME	COMMON NAME
<i>Celtis sinensis</i>	Hackberry
<i>Citrus spp</i>	Citrus
<i>Ligustrum sinense</i>	Narrow leaved Privet
<i>Ligustrum lucidum</i>	Broad leaved Privet
<i>Nerium oleander</i>	Oleander
<i>Olea africana</i>	Wild or African Olive
<i>Salix spp</i>	Willows
<i>Syagrus romanzoffianum</i>	Cocos Palm
<i>Toxicodendron spp</i>	Rhus Tree

Additional exemptions

- Pruning of a hedge by no more than 20 per cent of its height or width in any 12 month period
- Removal of dead branches; palm fronds or palm fruit
- Pruning of branches from electricity wires as required by the *Electricity Supply Act (1995)*
- Remedial pruning or removal to make a tree safe in response to severe storm damage or sudden branch failure. Evidence of the tree's condition (e.g. arborist or SES report) must be produced at Council's request if required. Replacement native trees must be planted if tree/s are removed
- Works carried out by state or federal government departments or authorities under current legislative requirements
- Dead trees.



A tree on private property in Queens Park, providing public and private amenity and softening the streetscape.



TREE ASSESSMENT

One of Council's qualified arborists will inspect the tree/s and undertake a Visual Tree Assessment (VTA). This is a widely accepted arboricultural assessment based on the current health, condition and structure of the tree. Additional criteria are also taken into consideration including:

- the environmental, cultural and amenity value of the tree
- the effect on the health of the tree from pruning
- whether the tree shows poor form and shape/vigour typical of the species
- its location within 3 metres of a residence, main building or other significant structure
- the occurrence (or lack of) other vegetation nearby and whether appropriate replacement species can be planted
- whether the tree is the identified cause of structural damage to a building, ancillary structure, water main or sewer and if all alternative options of remedying the damage have been considered.

After assessment, the application will either be:

- a. approved; or approved with conditions
- b. pending: awaiting further information or supporting evidence from the applicant
- c. refused; or refused with conditions.

Any application for tree removal should be accompanied with supporting information/evidence such as documented and photographic history of branch failures, the weather conditions at the time of the branch failure; sewer blockages etc.

Presenting this evidence with the initial application can be helpful as it will provide a more complete history of the tree. If no evidence is presented it may result in the refusal of the application.

Further information on when consent may be granted or refused can be found in the Appendices: Tree Assessment and Part B5 – Tree Preservation of the Waverley DCP.

TREE REPLACEMENT

To maintain urban tree canopy cover, when consent is granted to remove a tree, the applicant will be required to replace the tree with an advanced approved species which is to be established on their property and maintained to maturity.

Where there is insufficient space for replanting an advanced tree the applicant is to provide offset planting on public land. This will be undertaken by entering into a deed of agreement with Council.

Audit checks of replacement planting will be carried out by Council.

ARBORIST AND OTHER SPECIALIST REPORTS

Supporting evidence for the removal or pruning of a tree/s may require a report from a consulting arborist (AQF Level 5) where:

- major work or removal is proposed on heritage listed or significant trees or trees considered prominent in a heritage conservation area
- there is insufficient evidence to support the removal of a tree as assessed against the above criteria.

Council may request the applicant provide an arborist's report for more complex tree assessments such as an aerial inspection; root mapping or identification; fungal or pest problems; or internal diagnostic assessment.

Further supporting evidence may also be required from a structural engineer or licensed plumber if buildings or underground services are affected.

Details of requirements for arborist and other specialist reports are listed in the appendices.

REVIEW OF TREE DECISION

Under section 82a of the *Environmental Planning and Assessment Act (1979)* an applicant may ask Council to review the determination of the application.

If they are dissatisfied with Council's assessment of their tree they can submit an application for Review of Tree Determination within six (6) months of the date of the determination.

The application must include:

- additional information not available at the time of the original inspection
- a report from a consulting arborist (AQF Level 5) with any additional reports requested by Council relevant to the stated problem e.g. a structural engineer or licensed plumber report.

The review of the original determination will then be conducted by another Council officer with arboricultural qualifications.

Should the review uphold the original determination they have the right under Section 97 of the Environmental Planning and Assessment Act 1979 to appeal to the Land and Environment Court within six (6) months of the determination date.



Trees on private property in Bondi, contributing landmark qualities to streetscape character

PENALTIES

Any work carried out on trees without approval or not in accordance with an approval will be dealt with in accordance with the relevant legislation. This may result in a Penalty Infringement Notice or legal action through either the Local Court or the Land and Environment Court against all parties involved in any breach of Waverley Local Environment Plan or Development Control Plan or any conditions of approval.

Where a person is guilty of an offence involving the destruction of or damage to a tree or vegetation, the court dealing with the offence may, in addition to or in substitution for any pecuniary penalty imposed or liable to be imposed, direct that person to:

- a. repair or remedially prune damaged trees
- b. plant new trees and vegetation and maintain those trees and vegetation to a mature growth/or minimum height of five (5) metres, and
- c. provide security for the performance of any obligation imposed under paragraph (a) and (b) above.



NOTIFICATION OF PRIVATE TREE REMOVAL

As with Development Applications, an application for consent approval to remove a tree under Council's Tree Preservation provision may undergo a period of notification to relevant neighbours, including all unit holders within a block of units, prior to a final decision.

For trees listed on the significant tree register or in a heritage conservation area; considered prominent or are a landscape feature in the immediate area, Councillors and the local precinct committee may also be notified.

4.2 Tree disputes between neighbours

An application to prune overhanging branches or remove trees from a neighbouring property must have the signature of the owner of the tree/s.

Council does not have the regulatory powers to compel neighbours to prune or remove trees that may be causing damage or a nuisance to their neighbour, nor can Council mediate in disputes. Conflict over the management of private trees on neighbouring properties is the responsibility of both neighbours to discuss and resolve.

Residents are firstly advised to contact their local Community Justice Centre to seek mediation. If that avenue is unsuccessful they can make an application to the Land and Environment Court under the *Tree Disputes between Neighbour's Act*.

Tree disputes are usually heard on site by a Commissioner of the Court who has the powers to make orders that remedy, restrain or prevent damage to a neighbouring property or injury to a person from a neighbour's tree. The Court also has the powers to award compensation or order rectification of damage caused by a neighbour's tree.

This act only applies to tree on private property and not Council owned trees.

4.3 Trees on strata or company title properties

For trees located on the common property of a residential flat building or townhouse, the application must be from either the body corporate or the managing agent together with either the minutes of a meeting or signed letter from the majority of the owners consenting to the work.

4.4 Private trees overhanging council property

Where private trees overhang Council property, footpaths or roadways, the maintenance of the tree is regarded as the owner's responsibility and the owner should undertake pruning when requested. If the owner does not comply with a request, an order for the pruning of overhanging branches can be issued under Council's by-laws.

Chapter 5

Trees on development sites



Land use within the Waverley LGA is guided by the *Waverley Local Environment Plan* which sets out the type of development allowed in each location. It contains specific aims and Part 5.9 'Preservation of trees or vegetation' gives Council the power to prescribe provisions within a development control plan for the preservation of trees. Within the Waverley DCP – B5: Tree Preservation provides guidelines for the protection of trees on development sites.

When submitting a development application the following Council objectives apply:

- developments should be designed to minimise or avoid potential conflict between trees and structures
- existing prominent trees should be retained and incorporated as part of the design
- existing and future tree growth both above and below ground must be a consideration when building close to a tree
- trees identified to be retained are to be protected in accordance with Australian Standard AS 4970 – Protection of Trees on Development Sites
- arboricultural impact assessments are required for trees with moderate or high retention values that may be impacted by a proposed development.

To maintain Waverley's urban canopy cover, where trees are approved for removal, sufficient landscape area and deep soil planting areas must remain to allow for replanting of replacement trees.

5.1 Location of trees on site plans

All trees located on site must be shown on the site plan submitted with the development application. This includes trees on adjacent properties and any street or public trees within four metres of the site boundary. The site plan must include:

- the exact location of all trees with each tree numbered
- for each tree: the common/scientific name, height, canopy spread, trunk diameter at 1.4 metres above ground level and number of trunks if more than one
- which trees will be retained, removed, pruned or transplanted.



Tree protection and signage on Bondi Beach

Before plans have been



developed it is advisable to have a qualified arborist do a pre-DA assessment of trees located on site and any adjacent trees that may be impacted by the development. The assessment must be in accordance with the Australian Standard AS 4970 – Protection of Trees on Development Sites. The assessment will:

- identify trees with a moderate or high retention value
- inform and advise of any potential hazards
- minimise impacts on trees by suggesting appropriate construction methods or design if necessary
- help ensure the retention and protection of trees
- minimise delays in the development assessment process

The report is to accompany the development application.

5.2 Arboricultural impact assessment report

When a proposed development is deemed by Council to have an impact on trees with a moderate to high retention value, the applicant will be required to submit an arboricultural impact assessment report. The report must be prepared by a qualified arborist who has a Diploma of Horticulture (Australian Qualifications Framework Level 5). Please note there is a difference in skill level between an arborist that prunes trees and a consultant arborist.

The report is to include as a minimum:

1. details and estimates of Tree Protection Zones and Minimum Setback Distances for each numbered tree based on the Australian Standard AS 4970 – Protection of Trees on Development Sites
2. a separate tree plan clearly showing all trees to be retained/removed/transplanted and each tree numbered
3. tree assessment and retention value based on an industry accepted standard
4. a comprehensive discussion/assessment of the impact of construction works including:
 - a) details of any soil modification i.e. cut and fill, excavations
 - b) details of any tree pruning for building clearance or tree health
 - c) site works including hoardings; temporary site structures; wash-down areas and vehicle access
 - d) impact of the proposed building structure and location of services
 - e) impact from landscape modifications on site trees
 - f) details of any replacement planting
5. root mapping report where required
6. tree protection specifications and signage
7. an outline of WHS and tree protection procedures to be followed on site and appropriate induction for all on-site staff and sub-contractors
8. a post construction tree maintenance/monitoring program which can be used as conditions should the application be approved.

Reports must:

- be in accordance with the Australian Standard 4970 – Protection of Trees on Development Sites
- include recommendations for minimising loss of landscape amenity
- be thorough, balanced and objective in assessing the impact on the tree's current and future health and condition.

5.3 Tree assessment criteria

Within a Development Application, the assessment for removal or pruning of trees forms part of the application process. In evaluating an application to alter or remove a tree, the assessment will consider:

- the environmental, cultural and amenity value of the tree
- the effect on the health of the tree from branch and/or root pruning
- whether the tree shows poor form and shape/vigour typical of the species
- its location within the construction zone of the proposed building and whether design modifications can be made to minimise damage to the tree's root zone and canopy
- whether the tree is located in a habitat corridor and provides habitat or fauna canopy connectivity
- the evaluation and recommendations of any arborist reports
- the occurrence (or lack of) other vegetation nearby and whether appropriate replacement species can be planted.

5.4 Tree protection on adjacent sites

Trees adjacent to the site or within 4 metres of the site and identified as medium to high retention value and potentially impacted by the development process require protection measures in accordance with the Australian Standard AS 4970 (Protection of Trees on Development Sites) during the demolition and construction phases of development.

An Arboricultural Impact Assessment is required to provide recommendations for tree protection. See appendices for report requirements.



Tree protection for street tree

5.5 Tree bonds

Conditions and/or bonds will be applied where necessary to ensure maintenance procedures are followed for the protection of trees on adjacent public land or for the successful establishment of new trees. Compliance reporting is required for the duration of the bond. This bond may be wholly or partially forfeited if the tree is structurally damaged or removed during demolition or construction.

5.6 Construction hoardings

Applications for construction hoardings on public land must show the locations of any tree within 5 metres of the proposed hoarding footprint. A bond for the protection of trees affected by a proposed hoarding will be imposed and may be forfeited if the tree is damaged or removed during demolition or construction.



5.7 Significant and heritage trees and trees in urban conservation areas

For trees listed as heritage, or on the Significant Tree Register or considered prominent in an Urban Conservation area an Arboricultural Impact Assessment must be submitted with the development application.

In the case of trees listed on the Significant Tree Register, the architectural proposal should aim to integrate the tree with the built form and promote its environmental values.

5.8 Exempt and complying development

Minor and small scale development often does not require development assessment by Council. This type of development is identified as “exempt development” or “complying development”.

However, if trees, located on site or adjoining land and protected by Part B5 – Tree Preservation of the Waverley DCP, will be affected by construction or demolition works a separate development application permit application may be required.

5.9 Replacement planting

To maintain urban tree canopy cover, replacement planting is a condition of approval for development applications. Replacement trees must be an advanced approved species and be planted and maintained to maturity.

Where there is insufficient space for replanting an advanced tree, the applicant is to provide offset planting on public land. This will be undertaken by entering into a deed of agreement with Council.

Audit checks of replacement planting will be carried out by Council.

Chapter 6

Heritage and significant trees



Trees in Waverley considered outstanding with the highest cultural, historical, aesthetic or commemorative values on both public and private land are recognised in planning controls as either:

1. Heritage Trees – individual/group listing as a heritage item or as part of the landscape or grounds of a listed heritage item
2. Significant Trees – listed on the Waverley Significant Tree Register (revised 2011).

Heritage Trees

Trees with identified heritage values are recognised and listed in the Waverley LEP Schedule 5 – Environmental Heritage. They include individual trees and groups of trees as well as those that form part of a landscape or garden of a listed heritage property.

Significant Trees

Significant trees are listed on the Waverley Significant Tree Register and protected under the general provisions of part B5 – Tree Preservation – of the Waverley Development Control Plan.

Council's Significant Tree Register defines significant trees as “those trees that make a major contribution to the everyday landscape and are therefore of special value to the community”.

The aims of the Register are to:

- provide Waverley Council with a framework for the systematic identification and assessment of significant trees
- provide a database of significant trees for planning, management, conservation and education purposes
- enable a consistent approach to significant tree assessment based on accepted assessment criteria
- complement Council's Local Environmental Plan (LEP), Development Control Plan (DCP) and other relevant planning instruments to increase the level of protection for significant trees
- assist with the listing of significant trees as heritage items
- increase community awareness and appreciation of the value and worth of significant trees



The Canary Island Date Palm (*Phoenix canariensis*) is valued for its contribution to heritage and local identity



- provide for existing and future landowners to be made aware of significant trees;
- ensure the involvement of the community and other stakeholders.

Significant trees are to be found in Council's streets and public parks and on private property.

The National Trust's Significant Tree Committee suggests that a significant tree could be any tree:

- of outstanding aesthetic quality
- outstanding for its large height, trunk diameter or canopy spread
- that is particularly old or venerable
- which occurs in a unique location or provides a significant contribution to the landscape, streetscape or townscape, including remnant vegetation and important landmark trees
- associated with a well-known public figure or ethnic group
- commemorating or having association with an important historical event
- that is rare to an area, e.g. beyond its normal range of distribution or common cultivation, a rare species or variety, an endangered species
- which exhibits a curious growth form or physical feature, including unusually pruned forms
- which is of horticultural or genetic value and could be an important source of propagating stock
- which forms part of a recognised historic garden, park or town.

6.1 Protection and recognition

Waverley Development Control Plan (DCP) – Part B5 – Tree Preservation is the established mechanism for protecting trees and replaces Council's previous Tree Preservation Order.

The Significant Tree Register is an additional tool within the DCP which lists particularly valuable or outstanding trees as defined above and trees listed as heritage are included in the Schedule 5 – Environmental Heritage of the *Waverley Local Environment Plan*.

In addition to the general requirements of the DCP with regard to protection of trees; applications pertaining to heritage listed and significant trees are subject to a more rigorous assessment.

As with all trees protected under Part B5 –Tree Preservation, the intent is that trees should not be pruned, trimmed, removed or lopped where the action will compromise the health or environmental or aesthetic value of the tree. This is more strictly observed in the case of significant and heritage listed trees where often the physical form of the tree is a major factor contributing to its significance.

6.2 Significant and heritage trees on development sites

A significant or listed heritage tree on, or within, the vicinity of a site may sometimes constitute a constraint on development. A pre-DA assessment and an arboricultural impact assessment are required for any development that may impact on a significant or heritage tree. The assessment must be in accordance with the Australian Standard AS 4970 – Protection of Trees on Development Sites which sets out guidelines for tree protection and estimating tree protection zones.

Where development is proposed near a listed significant tree or trees, the “proposal should aim to integrate the tree with the built form, and promote its environmental values”.

6.3 Application for works on or near a heritage or significant tree

For proposed works on a heritage listed or significant tree or for a development application in proximity to the tree’s root system the following applies:

1. A permit is not required for the removal of minor deadwood for safety reasons or to maintain the health of a tree. However, Council must be notified seven days prior to the commencement of work.
2. Minor works, including branch removal to a maximum percentage of 10 per cent will require a Tree Permit application with the tree owner’s signature (repeat applications within three years of the first permit will require a development application). Adjacent neighbours will be notified of the permit application if approved.
3. Major works requiring substantial pruning of branches or roots or possible removal will require the lodgement of a development application with an arboricultural impact assessment. The report must be from a consulting arborist (AQF Level 5). Notification will follow the same procedures as for all development applications.
4. Proposed development within the tree protection zone of a significant tree will require lodgement of an Arboricultural Impact Assessment with any development application (see Australian Standard AS 4970 – Protection of Trees on Development Sites).



Hills Figs in Chesterfield Parade, defining local character and making a heritage connection

6.4 Responsibilities

The owner of a tree listed in the Waverley Local Environment Plan Schedule 5 – Environmental Heritage or on the Significant Tree Register is expected to properly maintain and preserve the listed tree.

It is the owner’s responsibility to:

- maintain and preserve the tree/s
- apply to Council for any routine pruning work
- submit an arboricultural impact assessment for any development application that may impact on the tree protection zone of a heritage or significant tree
- if proposed for removal, lodge a development application for consent, which must include a report from a consulting arborist.



A tree with significance associated with a heritage site.



Glossary of Terms

Biodiversity

Biological diversity (biodiversity) is the variety of life in our environment, including us. It is the different plants, animals and microorganisms; the genes they contain; and the ecosystems they form.

Bushcare/bush regeneration

Bushcare is a community-based initiative combining Council resources, community volunteers and trained bush regenerators to restore, protect and enhance remnant bushland areas in Waverley.

Canopy cover

The covering of the earth's surface in any given place or region by the totality of tree and shrub canopies as viewed from above. Often expressed as a percentage and used to measure the urban forest.

Character, Local

The particular characteristics of a place as identified by its built form, vegetation, history and community. Often synonymous with identity.

Controls, Council

Council documents created to control land use within the council area and administered by the Council.

Corridors, Habitat

Corridors that join places of habitat suitable for creatures (fauna), and along which they travel in relative safety.

CPTED

Crime Prevention Through Environmental Design. The design of environments with consideration to preventing or minimising opportunities for crime within their spaces.

DCP

Development Control Plan. A council-approved document detailing objectives and criteria for the design of the built environment. Unlike a Local Environmental Plan (or LEP), the DCP does not have the legal standing of State legislation.

Establishment

With respect to the planting of flora, the establishment of plants involves the appropriate planting and nurturing of specimens usually until they no longer require extraordinary care or maintenance to survive.

Hazardous tree

For the purpose of this document a hazardous tree is one that has partially fallen or has structural defects (i.e. advanced decay, split trunk) that could result in the immediate danger of the tree falling or collapsing.

Heritage tree

Defined by the Burra Charter as trees *‘worth keeping because they enrich our lives—by helping us understand the past; by contributing to the richness of the present environment; and because we expect them to be of value to future generations’*.

Imminently dangerous

Trees can become imminently dangerous from a singular event such as a storm or damage from a vehicle. Sometimes they can be structurally unsound due to advanced disease or decay. Signs of evidence include: soil heave or cracking, loss of structural roots, root decay, storm damage and structural defects that are obvious and immediately hazardous, such as split and hanging branches.

LEP

Local Environment Plan: Council-drafted state legislation which, in similar mode to a DCP, contains objectives for the development of the built environment. It typically contains broad principles, zones of specific types of land use and schedules of such elements as heritage items and tree preservation.

Locally provenanced seed stock

Seeds for planting taken from locally indigenous specimens.

Native fauna

The animal population indigenous to the local area. See ‘native’ trees below.

‘Native’ trees

Is generally used here interchangeably with ‘locally indigenous’ which generally means it was found in Waverley prior to European settlement, although it is often extended to include the region of the eastern suburbs of Sydney.

Operational procedures

In relation to trees in Waverley, refers to the establishment, maintenance and repair work carried out by or on behalf of Council with respect to trees or the impact of trees on the environment.

Park tree

Park trees are those found in Waverley’s public open space, including natural areas (such as bushland, foreshore, cliff-face and watercourse), sportsgrounds, reserves and areas of general community use.

Remnant vegetation

Refers to locally indigenous vegetation occurring naturally, either since prior to European development or can be directly traced to pre-European vegetation.

Service provider

Utilities that provide infrastructure such as water, sewerage and telecommunications.

TPO

Tree Preservation Order. Now replaced by Part B5 – Tree Preservation Clause of the *Waverley Council’s Development Control Plan 2012*.



Tree

Within the Waverley Local Government Area, a tree includes any woody perennial plant with a:

- height of five meters or over and trunk width of 300mm or over at ground level; or
- canopy spread of five meters or over and a trunk width of 300mm or over at ground level; or
- listing on the *Waverley Register of Significant Trees*.

Tree Protection Zone (TPZ)

“A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree’s roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.”

The Tree protection zone is calculated as 12 x trunk diameter (DBH) when measured at 1.4 metres from ground level.

Once calculated this area is to be fenced off as an exclusion zone that is not to be entered.

The Australian Standard provides guidelines for how TPZ’s are calculated, how to protect root zones, type of fencing should be used and how the TPZ should be maintained. This document, combined with the arboricultural advice of a Consulting arborist (AQF level 5) should be consulted when planning any work in the vicinity of trees.

Tree Retention Values

A significance rating used to determine how retainable a tree/s is to guide the site analysis and site planning stages of development.

ULE

Useful Life Expectancy of a tree. The life expectancy of a tree is defined as how long it is a safe and useful tree. This is firstly a result of its age, health, condition, safety and location.

Zone, zoning

Zones, as referred to in the *Waverley Council Local Environmental Plan 2012*, are mapped areas within the Local Government Area that specify what kind of land use is permissible and not permissible in that zone. Zoning usually also relates to the density of land use, and zones may be subdivided into more specific land use types and densities.

These definitions informally reflect the use of words found within this document and are not an attempt to create universally agreed-upon dictionary definitions.

Appendices

1 Tree Assessment

Assessment of trees for pruning or removal is evidence based on:

- a. **Visual Tree Assessment (VTA)** of each tree. This is a world-wide arboricultural industry standard of assessing a tree/s from ground level looking for any external signs of decay, physical damage or growth related structural defects. This method ascertains whether there are grounds for removal or if there is a need for a more detailed inspection of any part of the tree. It does not include specialised assessments such as tree decay, aerial inspection, pathology diagnosis of any pests or diseases or risk assessment.
- a. **Urban Value Assessment** of the tree/s to the landscape character of the area i.e. is the tree visually prominent and does it contribute to the character and local identity of the area. Other factors include the tree's age, size, or uniqueness.

Often, applications for tree removal may be based on a history of problems or hazards not evident at the time of inspection e.g. damage to buildings; blocked sewers; previously fallen branches; etc. It is the applicant's responsibility to provide sufficient evidence and background to support the application. This may be in the form of photographs or documented history of the problem or a report from a consulting arborist, licensed plumber, pest controller or structural engineer depending on the nature of the problem. If there is insufficient information the application may be refused or deferred until further evidence is supplied.

1.2 WHEN CONSENT MAY BE GRANTED

Taking into account the above, consent may be granted for the following:

- removal of unsuitable or hazardous trees where remedial pruning/treatment will not eliminate the hazard
- thinning of crowns to preserve solar access, some selective pruning and reduction of the weight of limbs
- maintenance pruning to remove dead, diseased, dying and defective branches,
- selective pruning to remove branches causing conflict through encroachment on own or neighbouring buildings
- root pruning of trees to ameliorate damage to built and natural structures in such a manner as to not compromise the health of trees
- pruning for service lines
- lifting of crowns to allow pedestrian or vehicular access
- pruning for vehicle sight lines, signage and RTA requirements
- removal of trees in conflict with built structures, where all engineering alternatives have been considered
- for construction or extension of buildings where there is no alternative to maintain the tree/s
- minimum work to ensure trees remain safe
- pruning and removal of fruit trees and flowering fruit trees not located on a heritage listed property or the Register of Significant Trees, depending on the species in question.



When granting consent to remove a tree an applicant will generally be required to replace that tree with an advanced approved species which is to be established and maintained for a specified period, especially if the removal of the original tree impacts on neighbours or the streetscape. Random audits of work granted consent will be carried out by Council.

Before planting any replacement tree it is strongly recommended that the eventual height and size of the tree be considered, particularly in regard to:

- power lines and other services such as water, sewer and drainage lines
- buildings, walls and pathways
- sunlight
- neighbouring properties
- suitability (trees or shrubs native to the coastal are highly recommended).

1.2 WHEN CONSENT MAY NOT BE GRANTED

Council may not consent to the following work:

- work on trees without owners' or owners' agent's signature on the application
- removing trees for solar access, leaf, fruit or sap drop, bird or bat droppings, and damage to sewer pipes and built structures (unless all engineering alternatives have been considered)
- removing trees that are healthy and stable
- removing or pruning trees for views
- pruning trees in a manner contrary to the Australian Standard AS4373 Pruning of Amenity Trees
- pruning work that is outside the tolerance of particular species, for example figs pruned by more than twenty per cent are more susceptible to sunburn
- tree work for emotive reasons, beyond the scope of the possible reasons given above
- removing trees because they inhibit grass or garden growth
- removing trees because of causing allergies, unless the tree can be medically linked to the allergy
- work which will seriously disfigure or unbalance the tree
- work which will alter soil levels within the drip line of a tree
- removing trees because they cause damage to minor ancillary structures such as footpaths and driveways
- requests to reduce the height of trees
- pruning to reduce the size of a tree listed on the Register of Significant Trees.

Instances where a formal Council application is not required, provided the applicant submits written arboricultural advice from an accredited provider, occur when:

- the tree is dead
- the tree is a recognised noxious or environmental weed and is not on Council's Register of Significant Trees (see Appendix for list of weeds). The applicant must first seek advice from Council
- the tree is less than five metres in height
- pruning of dead branches (Council encourages pruning works to be done by a qualified arborist where necessary and in accordance with Australian Standard AS4373 Pruning of Amenity Trees)

- pruning of branches that are within the set parameters of electric powerlines, as required by clause 23 of the Electricity (Overhead Line Safety) Regulation 1991 (Council encourages pruning works to be done by a qualified arborist where necessary and in accordance with Australian Standard AS4373 Pruning of Amenity Trees). The applicant must first seek advice from Council
- pruning and removal of fruit trees and flowering fruit trees not located on a heritage listed property or the Register of Significant Trees. The applicant must first seek advice from Council
- pruning and reshaping of Cypress Pines not greater than 10 per cent of the whole canopy.

2 Arboricultural Reports for Tree Permit and Development Applications

2.1 ARBORIST REPORTS

Who Should Prepare an Arborist Report?

The report must be prepared by a qualified arborist who holds the Diploma of Horticulture (Arboriculture) Australian Qualifications Framework of Level 5. Council will consider reports from consulting arborists who are members of either the Institute of Consulting Arborists or Arboriculture Australia with a demonstrated high level of tree assessment, diagnosis and report writing.

The report is to include a statement from the arborist that their report is an impartial assessment of the tree/s and their condition based on the available evidence and projected outcomes.

What information is required?

The following information is required in the preparation of an arborist's report:

- a. the client, specific author (contact and title of qualifications), purpose of report, subject site, date(s) of inspection
- b. methodology of techniques used in the report
- c. a summary of findings
- d. a site plan showing the location of all relevant trees, numbered to correspond with text in the report. The site plan must accurately show the location of each tree and existing or proposed buildings/structures and above/underground services
- e. a table for each tree detailing:
 - common name and scientific name
 - approximate height, age and canopy spread
 - diameter at one meter height, and number of trunks if more than one
 - condition and structural health of the tree/s, e.g. signs of dieback and other trunk indications, loss of branches, leaves, stunted/distorted growth, wounds, cavities, cracks, included bark/co-dominant branches, pests and diseases and root conditions/issues
 - hazard assessment of any of the above where relevant
 - estimates of the tree's useful life expectancy of the tree using accepted industry methods



- f. a summary and discussion of other relevant tree and site information, e.g. nearby structures; soil and drainage characteristics; habitat, landscape and amenity values; weather exposure; previous human intervention
- g. if pest or disease problems are affecting the health of the tree/s, further expert diagnosis and discussion of treatment may be required
- h. supporting evidence such as test results, annotated and relevant photographs
- i. discussion of all available options and the reasons why they are recommended or not recommended, e.g. can services be diverted to avoid root pruning; can a structure be relocated or rebuilt and retain the tree?
- j. recommended actions and the reasons for their adoption
- k. resource material to be referenced in an accepted method. References not used in the report are not to be included
- l. reports from any Resistograph/Tomograph testing must include copies of the charts, be clear and legible and have scientifically supported conclusions.

Any report lacking in sufficient detail or applying incorrect analysis or subjective opinion may result in the application being refused or some or all of the recommendations rejected.

Other/additional arboricultural information

Additional arboricultural information may be required as part of the arborist's report. These include:

2.1.2 AERIAL OR CANOPY INSPECTION REPORT

Aerial inspection of the upper trunk and branches of a tree is recommended if decay or poor branch formation is evident or suspected and there is a documented history of branch failure.

The findings of the aerial tree inspection together with photographs are to be included in an arborist report. The report and recommendations must be prepared by an arborist with a minimum qualification of AQF 5 level.

2.1.3 ROOT MAPPING REPORT

Root mapping is the locating and plotting of a tree's roots to determine the size and direction of root growth.

A trench is excavated along a determined line to a specified depth, usually by hand or with the assistance of a hydraulic water or air knife. Any exposed roots must have their location, depth and size and diameter recorded. No roots are to be severed and general root disturbance must be minimised. The excavated soil must be replaced promptly.

The results of the excavation are then analysed to determine the impact that a proposed building/infrastructure/services placement may have on the structural stability or long term health of the tree/s. These results must then be collated and presented in report form and include:

- a site plan showing the line, length and width of excavation; exact location of tree/s and proposed buildings/structures or underground services.
- photographs of the excavation lines clearly showing their location on the site plan and close up shots of trenches with an article to show scale.
- findings from the results of excavation detailing exact location, depth and size of roots, soil profile, presence of pipes etc.

A root mapping report may be an addition to an arborist report or a separate report. The report must be prepared by an arborist with a minimum qualification of AQF 5.

2.1.4 TREE TRANSPLANT METHOD STATEMENT

If a tree is proposed to be re-located on site, a report must be submitted with the application outlining the methods of transplantation. Council may also stipulate during assessment of any application that a tree be re-located and a statement be prepared.

The statement must include:

If a tree is proposed to be re-located on site, a report must be submitted with the application outlining the methods of transplantation. Council may also stipulate during assessment of any application that a tree be re-located and a statement be prepared.

The statement must include:

- a. a site plan
- b. a timetable of works
- c. details of site preparation including minimising damage to adjacent vegetation
- d. transplantation method e.g. machinery to be used; excavation techniques; rootball and crown treatments and stabilisation measures
- e. storage: on or off site; details of monitoring and tree care
- f. program of monitoring: during transplant process; after care and maintenance stages.

The statement must be prepared by an arborist with a minimum qualification of AQF 5 level.

2.1.5 TREE MONITORING REPORT

Where required or as listed in a development condition, the site arborist may be asked to provide monitoring or maintenance reports to assess the health and condition of trees on development sites. This is to include:

- a site log showing the date of each inspection, the person who performed the inspection, the tree/s inspected or tested, the maintenance activities performed, any repairs undertaken or required to be undertaken, and any substantial breaches or non-conformances
- the entries in the log book must be signed by the arborist performing the inspection
- copies of log entries to be submitted monthly
- where stated, photographs of the tree/s at nominated stages to be submitted. Photographs to include full profile and close-up shots taken from the same location and at the same time of day
- all maintenance to be continued for the stated duration and intervals.

The timing and duration of the reports will be determined according to the likely impact of construction works on the trees to be retained or the maintenance period for newly planted trees or impacted trees.

2.2 ARBORICULTURAL IMPACT ASSESSMENT FOR TREES ON DEVELOPMENT SITES

Trees on or adjacent to development sites that will be affected by proposed construction works require the following information:

1. details and estimates of Tree Protection Zones and Minimum Setback Distances for each numbered tree based on the Australian Standard AS 4970 – Protection of Trees on Development Sites
2. a separate tree plan clearly showing all trees to be retained/removed and each tree numbered
3. tree assessment and retention value based on an industry accepted standard



4. a comprehensive discussion/assessment of the impact of construction works including the:
 - details of any soil modification i.e. cut and fill, excavations
 - details of any tree pruning for building clearance or tree health
 - site works including hoardings; temporary site structures; wash-down areas and vehicle access
 - impact of the proposed building structure and location of services
 - impact from landscape modifications on site trees
 - details of any replacement planting
5. root mapping report where required
6. tree protection specifications and signage
7. an outline of WHS and tree protection procedures to be followed on site and appropriate induction for all on-site staff and sub-contractors
8. a post construction tree maintenance/monitoring program which can be used as conditions should the application be approved.

An impartial assessment of the above impacts with specific recommendations for tree protection must be included in the report or detailed in a separate tree protection plan.

Trees on adjoining properties or public land within 4 metres of the site must also be assessed if construction or site works will occur within their tree protection zones.

3 Specialist report requirements

3.1 STRUCTURAL ENGINEER'S REPORT

When is a structural engineer's report required?

Supporting evidence in the form of a report may be required from a structural engineer where:

- there is alleged damage from tree roots to buildings or major structures
- alternative design is required to minimise tree root damage to a prominent tree that may be affected by construction works.

Who should prepare a report?

Council recommends that a report be prepared by an engineer with tertiary qualifications in structural engineering and a minimum of five years post graduate experience.

What information is required?

The following information is required in the preparation of a report from a structural engineer:

- a. the client, specific author (contact and title of qualifications), purpose of report, subject site, date(s) of inspection
- b. methodology of techniques used in the report
- c. a summary of findings
- d. a site plan showing the location of all relevant trees, buildings, pathways, underground services etc. The site plan must accurately show the location of each tree
- e. detailed site description and site usage
- f. detailed description of the footings of the existing or proposed building and whether the footings comply with current building regulations



- g. geotechnical information
- h. detailed description of methods to isolate building foundations from tree roots
- i. discussion of all options available – why they are recommended or not recommended, e.g. can the tree remain with minor modification of building design
- j. recommendation of the preferred option and the supporting reasons.

Additional arboricultural information may be required such as a root mapping report or a supporting report from a consulting arborist.

Any report lacking in sufficient detail or applying incorrect analysis or subjective opinion may result in the application being refused or some or all of the recommendations rejected.

3.2 LICENSED PLUMBER'S REPORT

If tree roots are suspected of contributing to blocked sewer or stormwater pipes a report from a licensed plumber may be required as supporting evidence. The report must be a balanced and objective assessment of the problem and is to include:

- a clear and legible sewer or stormwater diagram
- exact site of suspected blockages in relation to location of the tree
- documented history of previous blockages together with photographic evidence of roots retrieved
- objective assessment as to the age and condition of the affected pipes
- balanced and objective discussion of practical methods of preventing further blockages, e.g. replacing affected section of pipeline; re-lining of pipe.

3.3 PEST/DISEASE CONTROL REPORT

If pests or diseases are affecting the health of a tree/s, a report may be required from a licensed pest control operator separately or in conjunction with a consulting arborist.

The report is to include:

- evaluation and discussion of the impact of the pest on the long term health and structural condition of the tree
- recommended treatment and management program.

4 Tree Protection Zones

“A specified area above and below ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.”

The Tree protection zone is calculated as 12 x trunk diameter (DBH) when measured at 1.4 metres from ground level.

Once calculated this area is to be fenced off as an exclusion zone that is not to be entered.

The Australian Standard AS 4970 Protection of Trees on Development Sites provides guidelines for how TPZ's are calculated, how to protect root zones, type of fencing should be used and how the TPZ should be maintained. This document, combined with the arboricultural advice of a Consulting arborist (AQF level 5) should be consulted when planning any work in the vicinity of trees.



the 1990s, the number of people in the UK who are employed in the public sector has increased from 10.5 million to 13.2 million, with the public sector now employing 21.5% of the UK population (18.5% of the total population aged 16 years and over) (Department for Work and Pensions 2002).

As a result of the increase in the public sector, the public sector has become an important employer of people with mental health problems. The public sector has a long history of employing people with mental health problems, but in the 1980s and 1990s there was a significant increase in the number of people with mental health problems employed in the public sector (Department for Work and Pensions 2002). The public sector has become an important employer of people with mental health problems, and it is important to understand the experiences of these employees.

The purpose of this study was to explore the experiences of people with mental health problems who are employed in the public sector. The study was a qualitative study, and the data were collected through semi-structured interviews. The study was conducted in the UK, and the participants were people with mental health problems who were employed in the public sector.

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