



Attachments

Ordinary Meeting

Notice is hereby given that an Ordinary Meeting of Council will be held at Council Chambers, 1 Belgrave Street, Manly, on:

Monday 18 July 2011

Commencing at 7:30 PM for the purpose of considering items included on the Agenda.

Persons in the gallery are advised that the proceedings of the meeting are being taped. However, under the Local Government Act 1993, no other tape recording is permitted without the authority of the Council or Committee. Tape recording includes a video camera and any electronic device capable of recording speech.

*Copies of business papers are available at the Customer Services Counter at Manly Council, Manly Library and Seaforth Library and are available on Council's website:
www.manly.nsw.gov.au*

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Tree Management Strategy (DRAFT)



Manly Council Tree Management Strategy July 2011 Draft

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1. PURPOSE OF THIS POLICY

The Tree Management Strategy will be the umbrella for a suite of documents under the name *Manly Council Tree Management Policies – Trees for a sustainable Manly, and will:*

- Tie any existing tree related policy documents together.
- Develop a policy that establishes Manly's commitment to the future strategic direction for tree protection, management, planting and maintenance for its streets, parks in the Local Government area (LGA).
- Address issues related to the park and street tree management and maintenance faced by Manly Council.
- Provide a rationale for decision making to ensure consistency in the management of park and street trees in the Manly Council LGA.
- To develop a strategy to ensure that we can improve our current 'tree environment' and pass on an improved heritage of trees to the future.
- provides direction to support the commitment to tree protection, management, planting and maintenance for trees in parks and on streets in the Manly LGA.

These documents will provide the tools for tree management and planning in the Manly LGA. These include:

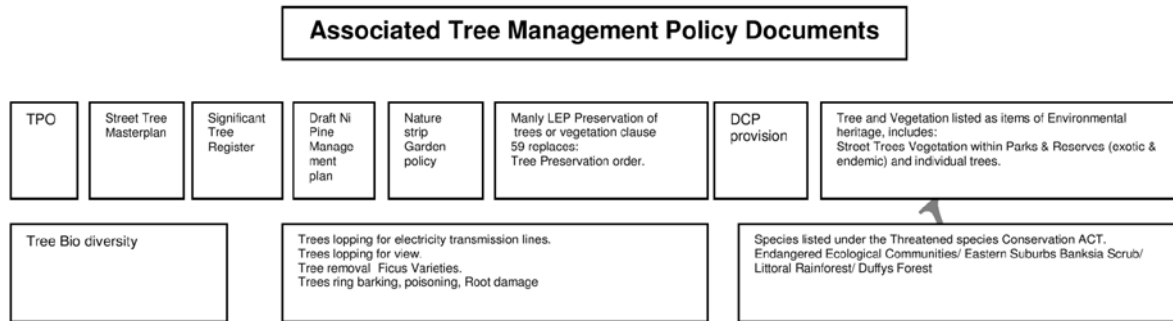
- Sepp19- bushland in Urban Areas.
- Tree Management Policy.
- Tree Preservation Order.
- Street Tree Master Plan (to be further developed).
- Significant Tree Register (to be further developed).
- Norfolk Island Pine Management Plan (to be ratified by Council).
- Trees Lopping for Electricity Transmission Lines.
- Trees Lopping for Views.
- Trees removal of "Ficus" Varieties.
- Trees Ringbarking, Poisoning, Root Damage.
- Nature strip Garden policy.
- Manly LEP Preservation of trees or vegetation clause 59 replaces Tree Preservation order.
- DCP provision.

Tree and Vegetation listed as items of Environmental heritage, includes:

- Street Trees.
- Vegetation within Parks & Reserves (exotic & endemic) and individual trees.
- Species listed under the Threatened species Conservation ACT.
- Species listed under the Noxious Weeds ACT
- Endangered Ecological Communities/ Eastern Suburbs Banksia Scrub/ Littoral Rainforest/ Duffys Forest

The relationship between these documents is illustrated in Appendix 1.

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USEFUL DEFINITIONS

biodiversity means biological diversity.

biological diversity has the same meaning as in the [Threatened Species Conservation Act 1995](#).

Note.

The term is defined as follows:

biological diversity means the diversity of life and is made up of the following 3 components:

- genetic diversity—the variety of genes (or units of heredity) in any population,
- species diversity—the variety of species,
- ecosystem diversity—the variety of communities or ecosystems.

clearing native vegetation has the same meaning as in the [Native Vegetation Act 2003](#).

Note. The term is defined as follows:

clearing native vegetation means any one or more of the following:

- cutting down, felling, thinning, logging or removing native vegetation,
- killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation.

(See Division 3 of Part 3 of the [Native Vegetation Act 2003](#) for the exclusion of routine agricultural management and other farming activities from constituting the clearing of native vegetation if the landholder can establish that any clearing was carried out for the purpose of those activities.)

environmental protection works means works associated with the rehabilitation of land towards its natural state or any work to protect land from environmental degradation, and includes bush regeneration works, wetland protection works, erosion protection works, dune restoration works and the like, but does not include coastal protection works.

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heritage item means a building, work, place, relic, tree, object or archaeological site the location and nature of which is described in Schedule 5.

Note. Heritage items may be shown on the Heritage Map. An inventory of heritage items is also available at the office of the Council.

native fauna means any animal-life that is indigenous to New South Wales or is known to periodically or occasionally migrate to New South Wales, whether vertebrate (including fish) or invertebrate and in any stage of biological development, but does not include humans.

native flora means any plant-life that is indigenous to New South Wales, whether vascular or non-vascular and in any stage of biological development, and includes fungi and lichens, and marine vegetation within the meaning of Part 7A of the [Fisheries Management Act 1994](#).

native vegetation has the same meaning as in the [Native Vegetation Act 2003](#).

Note. The term is defined as follows:

Meaning of “native vegetation”

(1) **Native vegetation** means any of the following types of indigenous vegetation:

- (a) trees (including any sapling or shrub, or any scrub),
- (b) understorey plants,
- (c) groundcover (being any type of herbaceous vegetation),
- (d) plants occurring in a wetland.

(2) Vegetation is **indigenous** if it is of a species of vegetation, or if it comprises species of vegetation, that existed in the State before European settlement.

(3) **Native vegetation** does not include any mangroves, seagrasses or any other type of marine vegetation to which section 205 of the [Fisheries Management Act 1994](#) applies.

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2. EXECUTIVE SUMMARY

Update as per community plan when adopted

"Manly" – Where *our* natural environment and heritage sustain and complement a vibrant cosmopolitan lifestyle.

Trees in our streets, parks and gardens make Manly beautiful and enhance our living environment. Manly is also surrounded by natural beauty: National Parks, the ocean and the harbour. The proper management of all our trees will play an important role in continuing to provide and enhance our highly valued natural environment.

A Tree Management Policy is inextricably linked to 'place' and heritage values. It is important to understand the way the community values its natural, Aboriginal and cultural heritage and how these values have been outlaid to create the existing landscape.

The purpose of this Tree Management Policy is to identify and recognise the importance of trees in the landscape, to guide their management and to ensure their protection for future generations. The document forms part of a suite of strategic planning and management documents under *Manly Council's Tree Management Policies*. These documents provide the tools for improved tree management and planning in the Manly Local Government Area (LGA) and include the following:

- NSW Threatened species ACT schedule of species and endangered ecological communities
- Street Tree Master plan – complemented by Street Tree Identification Manual (Document 1);
- Tree Preservation Order (Document 2);
- Significant Tree Register (Document 3);
- Tree Management Technical Manual (Document 4).
- Norfolk Island Management Plan
- Manly LEP Heritage schedule and Inventory.

Council and the community appreciate the many benefits of trees.

Benefits of Trees

Trees:

- Provide shade and cooling, which encourages a healthy outdoor lifestyle and helps to reduce energy consumption (by buffering the urban heat island effect).
- Provide the natural structure of the bush and beach character of Manly scenic amenity.
- Produce oxygen and consume carbon dioxide, trapping carbon and helping to reduce greenhouse gasses.
- Support habitat for local wildlife and migratory birds.
- Help to reduce dust, pollution, wind speeds and the effects of UV radiation.
- Help to manage stormwater run-off and soil erosion.
- Provide strong links to nature, our natural and cultural history and a sense of local identity.
- Contribute to individual property values, tourism and the vitality of business centres.

This document will guide the management of all trees under Council's direct responsibility, including trees in streets, parks, botanic gardens, bushland reserves, at

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Council facilities and on Council-leased land. The guideline and supporting procedures, in conjunction with statutory requirements, form the basis for consistent Council decision making and resource management.

Outcomes

This guideline and the associated procedures aim to balance the needs of our trees and our community.

Specific aims include to:

- Optimizing the capacity of our urban forest to provide both present and future residents with environmental, economic, and social benefits.
- Achieving a balance between minimising risks and liabilities to the community whilst delivering a sustainable urban tree cover.
- Achieving target canopy cover, stocking levels and projected life spans for the city's trees, including replacing removed trees and planning for deteriorating and ageing street and park trees.
- Achieving efficient, cost-effective, and sustainable management of the city's trees by coordinating efforts across Council and others programs.
- Minimizing the way that trees interfere with existing above and below ground services, signage, street lighting, public and private structures.
- Encourage space for street tree planting through design coordination between Council divisions/business units and utility organizations.
- Minimise impacts on existing trees by providing clear approval processes and ensuring coordination across Council's planning guidelines and improvement programs, and between Council and others in infrastructure development and management.
- Uphold Council's duty of care, and commitment to public safety, including a 'good neighbor' approach to managing trees adjacent to private property.
- Engage the community, provide open and accountable decision making and encourage stewardship and partnership.
- Support sustainable development and management practices.

Retaining Trees

The Manly DCP includes provision for protecting significant trees, including trees of cultural, ecological, or historical heritage importance.

For the purposes of this policy, the *Tree Protection Guidelines* will be equally applicable to Council projects. The *Tree Protection Guidelines* refer to AS 4970-2009: *Protection of Trees on Development sites*, and provide advice on how to decide if a tree should be retained and how to protect worthy trees throughout the following stages of a development:

- Site investigation and planning.
- Design and documentation.
- Construction.
- 'On maintenance' period.
- Post development.

Tree Planting

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Planting new trees is important in enhancing and renewing urban tree cover. Council is directly involved in planting trees as well as requiring tree planting by others.

Tree species should be selected according to the:

- Purpose of the planting.
- Available space.
- Conditions of the site (including consideration of climate change effects).
- Related infrastructure.

While endemic tree species are the most appropriate for restoring habitat, some non-native species or exotics (*excluding pest plants*) such as the Norfolk Pines are part of the landscape character and botanic history of the Manly ocean beach front, esplanades, streets and parks.

In Streets

The planting of street trees should:

- Promote tree lined boulevards along arterial roads and major entry roads, including feature tree species iconic to landscape of Manly.
- Contribute to local streetscape quality, storm water management and a target of 50% footpath shade cover.
- Be guided by existing canopy cover density, urban 'hot-spots', and resident requests
- Favor whole-street plantings or blocks within streets in preference to individual plantings (this is more efficient for establishment and ongoing maintenance).
- Favor clear trunked, small to medium shade tree species in residential streets to minimise nuisance.
- Encourage high quality vistas.
- Encourage community participation in street tree planting programs to promote ongoing stewardship.
- **Take into account and build on the historical and heritage plantings in individual streets and suburbs.**

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Council Parks

Tree planting in Council parks should:

- Conserve historically significant tree plantings and designs.
- Promote shade and amenity at picnic areas, pathways, spectator areas, playgrounds and carparks.
- Offer opportunities for education and showcasing colorful tree species throughout the seasons.
- Use the placement and grouping of trees to minimize maintenance and risk exposure.
- Enhance and protect habitats and waterways.
- Encourage community participation in park planting programs to promote ongoing stewardship.

Bushland, Foreshore and Broad Scale Areas

Tree planting in bushland and broad scale areas should:

- Add to biodiversity by revegetating degraded land.
- Assist the natural regeneration of desired species within significant conservation areas.
- Favor endemic species to provide safe corridors for fauna and flora.
- Improve biodiversity value of remnant vegetation by suppressing weeds species.
- Contribute to the conservation of Manly's unique biodiversity and waterway health.
- Contribute to a native vegetation cover target.
- No tree pruning or removal of trees in bushland except for structural integrity or safety reason.

Bushland and habitat Corridors

Bushland corridors are an important to our natural areas; these linkages can be by way of natural existing corridors or via streets or private open space where owner's agreement can be obtained. Council will endeavor to continue to create these corridors through it street tree planting programs. Also seeking private agreement to enhance corridor linkages throughout the LGA.

Tree Replacement

Council is committed to replacing trees removed as follows:

- In general, when a tree is removed according to the guidelines, or where the removal of the tree requires a permit it should be replaced with at least one new tree of standard Council stock size
- Where a tree removal does not satisfy the guidelines but has to be removed, it is to be replaced with a number of trees to compensate for the loss. So that within three years there will be no net loss in tree canopy area.
- replacement trees Council will endeavour to plant an appropriate tree for the area where a tree has been removed in an area in close proximity to the original tree.

Community Engagement

To help encourage community involvement in establishing and maintaining trees in the Manly LGA Council will:

- Encourage residents to report sick or damaged street trees.
- Encourage residents to care for street trees and other plantings by watering and weeding.
- Provide opportunities for residents to participate in community street tree planting.

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- Provide opportunities for residents to participate in bush regeneration projects which help community groups restore natural habitats in parks, remnant bushland and wetlands, and along waterways.
- Encourage/facilitate conservation partnerships and other incentive programs for private property owners.
- Encourage residents and business to make philanthropic donations to assist tree planting projects.

Council will notify the community of any street and park tree removals and proposed long term tree planting plans or replacement programs through local media and utilising local mail outs.

Council will adopted a 'good-neighbor' approach to managing trees near property boundaries by undertaking tree maintenance works that address genuine nuisance to the adjacent property owner. Where possible significant trees nearing the end of life expectancy will have succession planting carried out to allow for establishment of new tree prior to any removal.

3. INTRODUCTION

The Manly local government area covers an area of 16.26 square kilometres with a population of around 41,000 people at the eastern end of Sydney Harbour. The built area was started as a holiday and tourist destination in the early 1850's and has retained much of the historic heritage from that era.

Manly includes several distinctive areas with very different tree planting opportunities [See section 7 for details]. These are:

CBD and Business Areas

The business and local passive areas stretching from the East and West Esplanade and Wharf through the Corso and related business areas to the Ocean Beach in its entirety. Generally encompassing a busy bustling local community and tourist combination. Home to a lot of the Figs and Norfolk Island Pine trees. Trees and vegetation are an important element within local centres and are valued by the local communities.

Residential Areas

The residential precincts contain a range of plantings trees and shrubs. Ivanhoe Park, Fairlight, parts of the Corso and Ocean Beach all have fine grained street patterns with street tree plantings that enhance the historic character and create streetscapes that have a sense of dense community.

Seaforth, North Harbour, Balgowlah, and Clontarf generally have larger blocks unique street plantings that enhance the sense of space, relaxation, and beauty in the location.

Industrial (Refer to Balgowlah light industrial zones master plan)

There is a small industrial area located in Manly West bounded by Kenneth, Balgowlah roads and Condamine Street. With generous setbacks and some larger established tree plantings. The nature strip areas within the industrial area are continually eroded by vehicle access onto the grassed areas. This presents the area as unkempt. Further tree planting and street scaping would improve the area dramatically. Future developments should be considered with regard to the streetscape potential for the area. Long term

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planning in this area would be of benefit to ensure the best landscape and streetscape outcomes for the future.

Special Uses

(Special purposes under the new standard Instrument LEP) including hospital, sewage treatment, plant and cemetery. Other former special uses land is now to be zoned residential or business; includes a variety of facilities, schools etc, many within the landscape settings, which also have the potential to for significant corridor linkages. The Sydney Metropolitan catchment Management Authority has mapped the most significant of these and the published document is now available.

National Parks, Council Parks, Remnant Bushland

Manly has within the LGA two types of reserves, the natural parkland such as North Head, Grotto Point and Dobroyd Head (NP&WS lands) as well as the more managed open space areas such as Cabbage Tree Bay, Clontarf Reserve, Ivanhoe Botanic Gardens, and the various beach reserves which all have very different tree planting and management needs.

For all these areas the tree planting and management of these areas is a very significant and critical component of Manly. Trees make Manly a desirable place to live and visit.

The Norfolk Island Pines, Fig Trees, and Cabbage Tree Palms are an integral part of Manly's appeal to all who live, visit, or trade here. For this reason the Manly LGA will commit the time and resources to the review of the current Tree Master Plan to provide an updated and co-ordinated strategic approach to our tree management and planning activities.

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Figure 1. Manly Local Government Authority split into individual precincts

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HOW ARE THE TREES MANAGED AND BY WHOM?

Maintaining healthy and safe street trees requires a variety of activities coordination and a significant investment of resources. It also requires the active interaction and participation of several Council departments, developers, industry and the general public. The responsibilities of the various Council staff are described below.

Recreation and Urban Landscapes

The Manly Council Parks & Reserves section is responsible for planting and maintaining trees on streets, roadways, traffic medians, easements, public parking lots, parks and reserves, bushland, and for selective works.

Planning

The Parks & Reserves Section undertakes the assessment of the impact of development on street trees. Council Planners under the Manager Environmental Services ensure development proposals satisfy Council's policies, plans, and guidelines. This is achieved by providing Conditions of Consent within development approvals.

Urban Services

Council Engineers, including Projects Engineers for Catchment Modelling & Roads & Traffic within the Urban Services Division, are responsible for decisions relating to the safe and efficient movement of vehicles, pedestrians, and water and the placement of services within city streets and thoroughfares. This department is also responsible for the infrastructure surrounding trees.

Compliance

The Manager of Environmental Services & Regulatory Services is responsible for enforcing Conditions of Consent or approvals and Council policies. The Tree Management Officer and Parks Officer are responsible for the collection of evidence in the event of an alleged breach of the Tree Preservation Order or Development Consent.

BENEFITS OF URBAN TREES

Trees make Manly beautiful. Trees create a sense of place. Our tree lined streets and beaches contribute and create the different character of Manly. They diminish traffic noise, screen unwanted views, reduce glare and provide summer shade for the comfort of residents, pedestrians, and beach users/visitors.

Trees provide seasonal interest and natural beauty through foliage, interesting leaf patterns, flowers, bark, fruit, and canopy shape. They also add to a sense of historic or heritage differentiation in our various suburbs.

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Figure 2. Cook Island Pines in Malvern Avenue

Trees Improve Our Living Environment

Trees improve our air by removing carbon dioxide and returning oxygen to the atmosphere. This is done through photosynthesis, with the tree removing carbon and storing it in their leaves, trunk, bark, and roots.

Trees reduce pollution and dust from our streets, by entrapping the airborne particles and pollutants, such as sulphur dioxide, ozone, and carbon monoxide. They also trap particles that are mostly emitted by diesel exhausts.

Trees reduce heat in the streets by providing shade both for the pavements and the streets, benefiting pedestrians, parked cars, as well as residents. Reducing street temperatures by between 2 and 4 degrees also improves the life of the road surfaces.

Trees provide a link to nature and habitat and a source of food for our urban fauna.

Financial Benefits of Trees

Trees enhance property values as they establish and mature. Trees also provide cost savings for energy consumption. The shade of trees in summer reduces the need for air conditioning, and reduces the heat on absorbing surfaces- such as bitumen or pathways. Collectively, trees reduce what is known as the 'urban heat island effect'.

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COSTS OF TREES IN THE URBAN ENVIRONMENT

Trees are major community assets, considerable sums of public money are invested in their establishment and management, usually through local government or other public funding. As assets they must be properly valued and managed, which requires an appropriate budget on an annual basis for their management and replacement (Moore, 2000).

A high priority for Council is to identify the mitigation of damage caused by trees to infrastructure and services. A maximum cost will be outlined in order to keep a tree that is creating infrastructure issues or related claims for damage. Where conflict occurs between trees and infrastructure the cost of damages to either the tree or infrastructure will be considered carefully by Council. Action will be taken to remove trees causing damage to infrastructure only after careful consideration.

KEY OBJECTIVES OF POLICY

- To establish and maintain a street tree palette suited to the environmental and historic/heritage conditions of Manly. This will encompass both native and exotic tree species depending on the heritage and environmental needs.
- To increase the numbers of trees improve consistency with replacement timeframes.
- To reinforce and enhance, the special characteristics of the various precincts using distinct planting.
- To increase the number of trees in our area and keep consistency.
- To direct the most appropriate species and planting techniques for each area –“the right tree for the right area”.
- To guide the maintenance and management of existing and new trees to ensure that they survive and thrive in our environment and to ensure that there is good succession planting and planning as our existing stock matures and ages.
- Existing trees will be listed in ‘The Significant Tree Register’ and there is already an agreed policy by Council (Ordinary meeting 15th August 2005 Res 337/05) and incorporated in the Planning and Development, LEP, DCP and Policies.
- To set and maintain high tree establishment standards, and maintain a sustainable diversity in tree species.

WHO WILL USE THIS DOCUMENT?

The Manly Council Tree Management Policy document is intended to be widely available to all interested stakeholders including;

- Manly Municipal staff - as a guide to the provision and management of trees in the public domain;
- Landowners and developers - to assist in their selection and installation of tree species;
- The general public - to foster a better understanding of the desired tree character for our precincts.

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THE STRUCTURE OF THIS TREE POLICY/STRATEGY

- Introduction; Benefits and Costs of trees [Section 3].
- Risk Management and Legislative Requirements [Section 6].
- Species selection – including tree selection criteria, design principles [Section 4].
- Tree Removal – Procedures and processes that govern under what circumstances trees can be removed; (TPO) [Section 6].
- Precinct plans – nominates the tree palette and design objectives for each precinct [Section 7].
- A list of long term projects for Manly LGA [Section 8].

4. TREE SELECTION CRITERIA

Trees in the streets and parks of Manly LGA will occupy their planting sites for 50 to 200 years a careful considered selection of site and tree species is vital. Manly's streets are on average 70% planted with established trees which will influence the choice of future new trees to be planted within the Council area. Tree's which are performing well will continue to be used with the Council region where appropriate. Tree's which perform poorly or are particularly damaging to pavements, kerbs, gutters or underground services will look to be replaced using the opportunity to introduce additional tree species or cultivars.

There is no perfect tree but selection criteria will fit in to environmental tolerances, functional requirements, aesthetic/design needs. The choice of trees should consider the possibility of future damage and cost to rate payers.

Site Selection

A key objective of this strategy is to ensure the 'right tree for the right location'. Specifically, to ensure the species selection is appropriate for the local environmental conditions and the constraints of the planting location. The aim of successful species selection is to ensure the tree makes a positive contribution to the environmental, cultural, and aesthetic values of the area and that negative values are minimised.

The Street Tree Master Plan is, in effect, a comprehensive design arisen from an evaluation of the opportunities and constraints of individual streets. A site analysis is undertaken for each individual planting location as there is no one homogeneous urban environment or site. The urban environment is a conglomeration of soils, microclimates and other site conditions. These conditions can change dramatically in the space of a few metres.

The individual site analysis should consider:

- Climate and microclimate considerations (hardiness zone, light conditions, heat, wind);
- Soil conditions (pH, texture, compaction levels, drainage characteristics);
- Above-ground limitations (powerlines, proximity to structures);
- Below-ground limitations (rooting space, electricity, gas, water, sewerage, and communications easements);
- Sight distances;

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- Pedestrian infrastructure;
- Adjoining boundary areas.

When considering the location of a tree, the Council's Asset Management Database should be a key point of reference, because this is how we maintain records of changes in tree species, location, or other relative changes.

Only when there is a thorough understanding of the environmental variables at a potential planting site will appropriate species selections be made. Individual resident requests should not be isolated in the selection process, but look at the bigger picture in regard to street tree planning.

Street Trees	Minimum planting size 75 Litre
Park Trees	Minimum size 100 Litre
Plaza Trees	Minimum 100 Litre Min height 5m
Garden plantings	Between 200mm to 25 Litre
Avenue Trees	Minimum 200 Litre
Bushland	Generally Tube Stock, special purpose 75 to 100 Litre maximum

ENVIRONMENTAL CRITERIA

There are a range of issues that must be considered by Council when selecting the type of trees to plant across the council region.

- **Climate**

Manly is located in Sydney in New South Wales which has a subtropical east coast climate, with periodic rainfall throughout the year. However, many of the plantings are affected by their proximity to the coast and the resulting strong sea winds and spray.

In general the climate experienced in the Manly Council area is part of the subtropical east coast - which experiences a warm, wet Summer/Autumn and a cool, drier Winter/Spring. The predominant wind direction is southerly with easterly sea breezes in the afternoons. Mean daily maximum temperatures (25C) occur between December and March with mean daily minimum (<10C) between June and August. Street trees selected will need to be able to tolerate temperate climatic conditions.

Consideration of the local micro climate must be made when selecting species for planting. For precincts which are situated closer to the coast, tolerance to sea spray and high winds are pre-requisites, whilst for those precincts further away, more leeway is possible in species selection.

- **Geology and Soils**

The major geological formations in the area are middle Triassic Hawkesbury sandstone, overlying the Newport Formation of the Narrabeen group. This is clearly identified at North Head where the lower half of the seaward facing cliffs is composed of the Newport Formation, with Hawkesbury sandstone forming the upper blocky cliffs. A shale sequence marks the top of the Newport formation. The Hawkesbury sandstone is characterised by medium to coarse quartz sandstone. The Newport formation is characterised by imbedded laminite, shale, and quartz, to lithic-quartz sandstone.

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The underlying geology and soil provides nutrients and water as well as physical support for the tree. Soils differ in the conditions they provide in terms of quantities of nutrients, drainage characteristics, and depth. The underlying geology of the region is Hawkesbury Sandstone which produces sandy, low nutrient soils, which provide excellent drainage but poor water retention.

- **Topography**

The topography of Manly is characterised by a high ridge running east west along Balgowlah Heights with steep south facing slopes above North Harbour and more moderate slopes to the north. The area plateau to the west of Balgowlah Heights and Seaforth with a very steep escarpment that drops to the Middle Harbour shoreline. The general relief of the area ranges from sea level to the highest point located at Bantry Bay Reserve, a level of 121.1m AHD. To the north the area is bounded for the most part by Burnt Bridge Creek, running from the North West end of Seaforth to Manly Lagoon. The Manly Town Centre is located on a narrow isthmus of sand, separating the waters of North Harbour from the Pacific Ocean. The isthmus connects the mainland to the northern headland of Sydney Harbour, creating a tied-island known as a tombolo.

- **Tolerance to Paving**

The selected trees should tolerate planting in hard paving areas and must have the ability to tolerate low oxygen levels and compacted, highly modified soil conditions.

Conflict between tree roots and hardscape is a common occurrence in urban settings. The most common form of damage occurs from direct displacement of structures by root or trunk buttress growth. The main concern with lifting or damaged hardscape elements is the danger that it presents to the pedestrians and drivers. There is a need for Council to be pro-active and effective with hardscape repairs particularly in busy streets where pedestrian and traffic movements are high. The two main criteria for evaluation are severity of hardscape defect and the frequency of use. Alternatives for reduction in footpath replacement should be considered (e.g grinding of trip slabs).

Root pruning is used widely for the control of surface roots around footpaths and other street infrastructure. The USDA Forest Service (1998) stated that a triple fatality in 1990 was caused by a falling tree whose roots were cut during footpath reconstruction. Although there are a number of factors that will determine a tree's potential for failure, soil excavations that sever large roots often create hazardous situations. Root severance also creates large wounds at or near the base of trees. These wounds will be subject to decay over time and will ultimately affect the overall health and stability of the tree. In addition, whilst root pruning can provide temporary abatement of root conflict, pruning roots can result in the rapid regrowth of roots and necessitate further repairs in the short term (Harris, Clark & Matheny, 1999). Root severing for footpath replacement is to be further considered as part of the big picture for maintaining significant street trees.



Figure 3. Tree surrounded by paving at North Steyne

Prior to implementing strategies to rectify the conflict between hardscape within streetscapes and tree roots Council will investigate the possible causes of the problem. Understanding of the various causes will also allow the most appropriate actions to be developed. However, it should be acknowledged whilst such guidelines attempt to prevent such conflict occurring, damage may still occur in the best planned streetscape due to numerous other factors influencing tree growth. In order to provide reasonable conditions for tree growth and enable trees to reach their optimum, ultimate dimensions, Council does compromise where necessary between the conflicting needs of street trees and urban infrastructure.

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

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Wildlife Habitat

Street trees do provide food and homes for native fauna. They also provide important habitat links between isolated bushland reserves in urban areas. As such consideration is undertaken to the surrounding flora and fauna to integrate the chosen tree species into the landscape and ensure its suitability for any native wildlife in the area. Street corridors are important because the link isolated bushland areas and National Park areas to each other and provide active linkages. The development and maintenance of Wildlife Corridors will be integral in all precinct plans. The corridors that will provide these links should be documented to allow future preservation of such corridors.

• **Native versus Exotic Tree Selection**

There is a debate about the use of locally indigenous species, that is, species that originally grew within the area. Whilst locally indigenous species may be the most appropriate for local environmental conditions, the growing conditions within the urban environment are often very different, particularly in a street situation. Disturbed soil profiles, compaction, higher nutrient status, altered drainage patterns, and paved surfaces are just few of the problems with which urban trees must contend.

When addressing this issue, a more useful division may be to view this point three ways:

1. Local natives.
2. Natives from distant parts of Australia.
3. Exotics.

Local natives have the advantage of being climatically suited and live in some degree of equilibrium with pest organisms such as insects and fungi. Use of local natives promotes biodiversity and creation of wildlife corridors, reinforces an "Australian" sense of place, and can be drought resistant.

Natives from distant regions are less likely to be climatically adapted; they may enjoy freedom from local pest organisms but if they become infested are likely to succumb faster. Exotics may be almost completely free of pests and diseases but run the risk of being devastated if these are accidentally introduced.

Regarding local or at least NSW east coastal natives and their suitability as inner urban street trees, species best adapted for inner urban areas are usually from drier rainforests, particularly littoral rainforests where most trees are long lived, shade tolerant; and freshwater swamps and other areas that are poorly drained and aerated, where species from these environments are highly resistant to root rot organisms and their root systems are adapted to adverse conditions.

Many of the familiar natives such as Eucalypt trees are from the more open and drier vegetation types. These species seem to perform poorly as street trees in inner urban areas due to more specialised physiology, in that they are adapted to soil of very low nutrient status but perfect drainage where rot organisms are at a disadvantage. Consequently these species are less tolerant to interference with the root system, including compaction and damage. Depending on the design principles sought, natives can display a variable form which makes it difficult to establish and maintain a planted avenue.

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Also they are highly fire adapted and a consequence is that they "bolt" in growth for brief periods when post-fire soil nutrients are temporarily higher, but as this bolting of growth continues in a high nutrient, fire free environment the tree may become structurally weak and the foliage and bark becomes susceptible to attack by insects and other pests.

An important advantage of exotics in the inner urban context is that they include all the useful deciduous trees which provide greater sun access to the streets through the winter months. Some natives are deciduous but generally in spring or early summer (an inheritance of their monsoonal origins). The red and white cedars (*Toona ciliata*, *Melia azedarach*) are the closest native trees we have to winter deciduous but both suffer from severe pest problems under urban conditions and are unreliable performers.

Many exotic deciduous species have the advantage of hundreds of years of selective breeding which ensures quality stock. They are pollution tolerant, are more resilient to cope with interference with roots or damage during construction works. The canopy shape of many exotics is able to tolerate pruning and shaping required for urban infrastructure.

In summary both natives and exotics have their strengths and weaknesses for use as street trees. The Street Tree Master Plan will aim to plant the right tree for the right location, for the right reason.

- **Drought Tolerance**

It is expected that in future drought conditions the water restrictions Sydney has experienced will be re applied, should further drought occur again in the long term. Street trees selected need to be capable of surviving an average drought period in reasonable condition without irrigation or reliance on town water supplies. It should also be noted that in prime weather conditions such as rain periods trees should be planted to take advantage of good rain.

- **Tolerance of Pests and Diseases**

The selected tree species should be resistant to pests and disease. A diversity of species is also important in reducing the impact of devastating diseases on specific tree species.

- **Tolerance of atmospheric pollution**

The CBD environment and areas traversed by busy arterial roads are subject to photochemical pollution produced by vehicle exhaust systems. Trees selected for these areas need to be able to tolerate these vehicle emissions.

Deciduous trees are generally considerably more tolerant than evergreen species due to the duration over which different species retain their leaves. The longer the life of a leaf the greater likelihood that the threshold levels for pollutant damage will be exceeded.

- **Functional Criteria**

Species selected for street tree planting also need to fulfil certain functional criteria to ensure successful establishment and reduced ongoing maintenance and

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management issues, species choice needs to avoid creating future infrastructure or risk management issues.

- **Performance Record**
Proven performance of the species under the environmental conditions of the locality. The species should thrive in the chosen area without requiring substantial support.
- **Provision of Shade to Pavement and Road**
The tree should provide adequate shade cover to both pavement and near road surfaces in order to function as a temperature modifier. Infrastructure should be considered in any planting situation, allowances for such infrastructure will be crucial in the future.
- **Safety/Visibility**
Selected tree shape should ensure that pedestrians and motorists have clear visibility, so there should be a clear trunk up to approximately 1.5metres. This will also ensure that people can open their car doors easily.
- **Availability at Advanced Size**
Limitations on tree selection are imposed by the availability of the nominated species and well-grown specimens. The Council generally purchases tree stock from the commercial nursery trade. For uncommon species or trees required in large numbers for specific projects, forward-ordering from specialised nurseries or other sources may be required. Advanced tree species stock needs to be adequately checked to ensure there are no bound roots in potting situation.
- **Acceptable Leaf & Fruit Fall Characteristics**
The selected species must have an acceptable level of nuisance created by the shedding of leaves and fruit for a street environment. Those with large or heavy seed pods, excessive leaf drop, or fleshy fruit or flowers which may lead to slip hazards will be avoided. Existing trees within the landscape that present such issues should be considered in based on significance of the existing tree.
- **Low Risk of Becoming Environmental Weed**
Some species are known to be, or have the potential to be serious environmental weeds due to their ability to self propagate and invade bushland areas. Such trees should be listed and documented as part of Council's policy.
- **Not Prone to Major Limb Shear**
Limb loss occurs on an occasional basis for most trees due to wind induced mechanical breakage. Trees that are renowned for having brittle branches and regular branch drop will be avoided for use as street trees (e.g some eucalyptus species).
- **Long Lived**
Many of the costs associated with the management of trees in the urban environment are associated with the establishment and over maturity phase. Using long lived species that require replacement on as infrequent a basis as possible will minimise tree management costs.

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- **Capacity to Lift Pavements & Kerbing**

Although no guarantees can be given that any particular street tree species will not interact with kerbs and pavements, species that are renowned for vigorous root systems causing pavement uplift will be avoided. The Council will also investigate the use of alternative footpath materials and design to minimise tree root and bitumen interaction. Other variants should also be considered with regard to replacement of footpath slabs (e.g grinding of trips initially to reduce cost).

- **Low Maintenance**

All trees selected will require minimal maintenance subsequent to establishment. Further community assistance should be sought to ensure the success of plantings.

- **Solar Access**

Species should be selected that will provide an appropriate level of solar access to dwellings on the southern side of the road carriageway during winter. Auditing of streets to highlight these areas will be carried out to ensure practical planning in this respect.

AESTHETIC/DESIGN CRITERIA

A town is a constructed cultural landscape consisting of, buildings, streets, and parks. Trees play an important part in enriching the cultural experience of the place and so aesthetic characteristics are an important selection consideration.

- **Relationship with Distinctive Landscape Characters**

The selection of species may be made to reinforce historical, cultural or natural associations from our part, particularly Victorian era landscape planting.

- **Ultimate Size of Tree Canopy**

Very large trees in confined spaces often result in unacceptably high management costs. Conversely small growing trees in broad streets rarely contribute significantly to visual quality.

Trees selected will be in scale with the streetscape and if allowed, utilise the largest growing species possible for the area.

Species should be selected such that the ultimate mature size of the tree is in scale with the street in consideration of the site constraints, such as nature strip widths, overhead powerlines, building alignments' and vehicle clearances. The optimum range is not so small that it does not make a significant contribution to the amenity of the street, and not so large as to dominate and cause significant problems. In some instances the constraints imposed by the street environment will limit the optimum size of street trees or even restrict tree planting altogether. This is the case with the majority of narrow laneways and footpaths throughout the area.

HISTORIC / CULTURAL ASSOCIATIONS

The selection of species may have natural, historical, or cultural associations with the locality. New plantings should consider the historical context of the locality.

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Manly's Norfolk Island Pines on the ocean beach are an internationally known symbol of our town and must be considered for any new plantings in these areas.

- **Form of Tree Canopy**

Selected species should have an appropriate and predictable form with an upright trunk and stable branch structure. Street trees need to have a form that allows traffic and pedestrian movements around the tree. In the CBD desirable tree forms include trees with a single straight main trunk supporting a domed crown, or columnar form.

- **Deciduous versus evergreen**

The street tree list includes both evergreen and deciduous trees. Evergreen species provide year round screening, greenery, and shelter from winds. Deciduous trees provide stimulating seasonal events whilst maximising winter light.

In residential areas deciduous trees are useful to maximise summer shading and winter light particularly for buildings located on the southern side of a street, or where solar access is required.

- **Corridor potential and value**

By making sure that streets have sufficient trees and canopy cover this is a means of creating further linkages to natural areas within the LGA and helpful transitional linkages beyond the LGA.

OTHER FACTORS THAT IMPACT ON STREET TREE SELECTION AND ESTABLISHMENT

- **Overhead power lines**

Of all the factors that limit the benefits trees contribute to a streetscape is the conflict between overhead power cables and tree canopies. A solution to this problem is to select smaller tree species. This could be viable for narrow streets, however with wide streets these small trees are inevitably out of scale with the streetscape and present a poor outcome. Planting of replacement tree for this purpose is crucial before the existing trees need to be removed. Councils can no longer grow large trees under wires, the continued detriment to the tree and prolonged costs associated with corrective pruning to maintain a reasonable shape is high in this regard.

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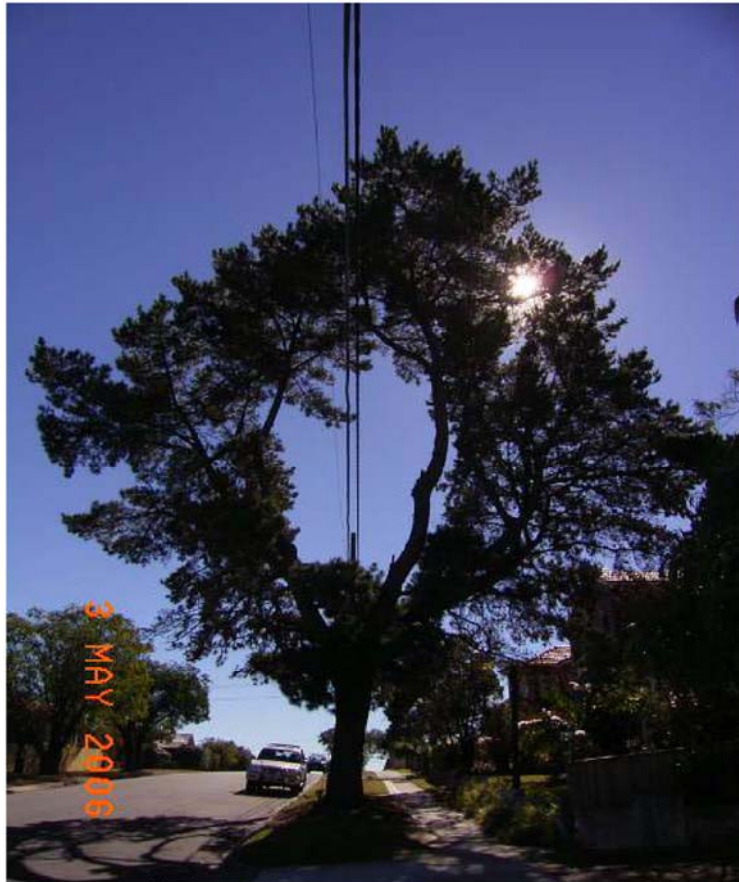


Figure 3. Pruning impact on Trees due to overhead power lines

The Council in the future would like to have the ability to begin co-ordinating with Energy Australia to look to enable the roll out of aerial bundled conductors (ABC). These consist of number of insulated wires bundled into a single cable which eliminates the need for the wide stringing assemblies that are the greatest problem from a street tree perspective. ABC allows for reduced line clearance codes to be employed which results in less impact on establish tree canopies. Sometimes the cost of bundled cable can be restrictive given councils available funds.

Underground power cables are also an option particularly for new urban developments. In established areas costs at this stage could be prohibitive however this high cost may in fact be a practical option when compared with the projected cost of repeated pruning, the risk that this work involves to operators, the negative impact on trees and loss of public amenity.

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- **Underground Services**

High pressure gas mains and electricity easements sometimes prohibit establishment of trees due to the depth of the service and potential liabilities if the service was damaged. Each site will be assessed on its merits to determine the feasibility of establishing trees in relation to underground services. It is essential that pre planning occurs to avoid future risk or damage to such infrastructures

- **Narrow Footpaths**

An essential factor in species selection is the width of the footway proposed for street tree planting. Trees planted in footways less than 1300mm wide (from building line to the back of the kerb) force pedestrians, particularly those with strollers, to walk on the road. As it is far safer to encourage pedestrians to stay on the footway, trees will not be planted in footways less than 1300mm in width.

Existing trees that have been previously planted in footways less than 1300mm wide will not be removed (unless considered unsafe), but additional trees will not be added to the footway.

Where site constraints limit the optimum size of street plantings, consideration may be given to mechanisms which minimise or remove the impact of these constraints. These could include for example, replacing overhead powerlines with Aerial Bundle Conductors, planting trees within the median or road carriageway (where footpaths are narrow and streets are sufficiently wide) and increasing the root zone soil volume by use of structural soils or similar technologies.

- **Related Issues with the Tree Species**

There is no such thing as the street tree that will perfectly fulfil all aspects of our selection criteria. Trees are living entities that can present a variety of forms and habit even within the one species type.

It must be remembered that we are planting trees in an artificial, constructed environment that is far removed from their natural habitat. In this situation there are bound to be some negative aspects associated with trees in an urban environment, however it is generally considered that the benefits trees contribute to our environment far outweigh any negative aspects.

Frequent negatives raised about street trees include:

- **Allergies**

Concern is sometimes raised that particular tree species cause allergies and respiratory problems.

All flowering plants including grasses produce pollen. Generally species that rely on wind pollination create a greater pollen load to ensure continuation of the species.

Pollen in the air can contribute to hay fever, eye allergies, and other respiratory problems.

Grass species are by far the most prevalent pollen producers and have a long pollen season. Grasses rely on wind to disperse their microscopic pollens, which

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are produced in vast quantities. In Sydney the grass pollen season goes from September into January or February depending on the weather.

As noted before there is no such thing as the perfect street tree. Strategies that council can undertake to manage the pollen and fruit drops from certain trees will be to increase the frequency of street cleaning at the appropriate times of the year.

Many people reduce eye allergy symptoms associated with air pollen by wearing wraparound sun glasses and a hat which can exclude the majority of pollen grains actually landing in the conjunctival sac.

- **Leaf and Fruit Droppings**

All trees, including evergreens, drop leaves. Strategies to reduce the impact of leaf litter in our streets will be the coordination of our street sweeping resources to target problem areas. Bunya pines are monitored and maintained in Councils cyclic works program.

Species with fleshy fruits or leaves that become mucilaginous on decomposition will be avoided for selection.

- **Damage to pavements**

Many old established trees in our area can cause footpath uplift and cracking. These trees generally are the vigorous, larger growing species.

In adhering to the principle of the "right tree for the right location" future tree selection will be mindful of the potential of various tree species to cause pavement damage.

Also an important consideration is the site preparation and establishment techniques used for tree planting. The use of nature strips where possible, maximising the size of the planting "cut outs" in pavements and the use of flexible pavements and deflection barriers will minimise future instances of pavement damage and associated risk management issues.

Design Principles

As a collective, trees are considered and planted to reinforce public realm design principles, in particular:

- Consistency and visual uniformity for each street.
- Enhance the local character of distinct areas by introducing a precinct planting approach.
- Reinforce and celebrate the gateways and key nodal intersections
- Reinforce major boulevards and avenues.
- Reinforce the harbour edge.
- Enhance key cultural and commercial areas.
- Permit or reduce solar access.
- Allow the borrowed landscape to take precedence around existing parks.

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In adhering to these design principles consideration must be given to site specific consideration that will determine tree placement. These include footpath widths, sight line clearances, underground utilities, overhead wires etc.

Consistency and visual uniformity for each street

Related to the principle of a consistent and coordinated theme for individual streets is the concept of "precinct" planting. All new planting will be based on a precinct approach where tree species selection and planting will reinforce the distinct physical character of each area and be responsive to its unique environmental conditions.

Build on and encourage the individual precinct differences.

The precincts are demarcated by physical boundaries such as landform, streets and built context. They have very different street tree and park plantings and the council will continue to encourage these historical and physical differences by planting appropriate trees. [For detailed plans see section 9].

REINFORCE MAJOR FEATURES & GATEWAYS

(In consultation with the Landscape Management Committee)

Manly LGA has a number of designated gateways on entry to the council region at each major access point. The gateways include major road access points on to:

- Manly Road
- Pittwater Road
- Wakehurst Parkway near Seaforth oval
- Spit Bridge north bound
- French's Forest Road

Minor road access points on to:

- Condamine Street
- Queenscliff Bridge
- Darley Road from North Head
- Kitchener Street

Entry Points to CBD:

- Manly Wharf
- The Corso
- Sydney Road & Belgrave Street
- Darley Road

These gateways will be acknowledged and celebrated by public domain improvements such as footway widening, which together with new mature tree plantings, will create great tree lined avenues that highlight their importance. Significant signage walls to highlight entry to these areas of Manly.

Reinforce major features in Manly

Manly Council includes some of Sydney's major tourist features and attractions such as Manly Ocean Beach and Manly Cove, used by ferries for commuters and tourists alike. These areas will have consistent mature tree species and landscaping undertaken to reinforce the importance of these areas within the Manly Council region.

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Reinforce the Foreshore Harbour Edge

A key feature of our Manly is the important wildlife corridors that extend along the Harbour foreshore edge that consists from Seaforth through to Manly Cove.

A design principle will be to establish where suitable indigenous trees, to be planted around the harbour foreshore to provide a strong edge definition and sense of place. Suitable Species will be used in clusters or avenues to identify key nodes or axis.

Enhance Key Cultural and Commercial Areas

The Council has key commercial strips and cultural areas such as The Corso and The Manly Beach Front, East West esplanade, Sydney Road & Belgrave Street. These commercial strips will be enhanced and distinguished through suitable tree planting.

Permit Solar Access

Species should be selected that will provide an appropriate level of solar access to dwellings on the southern side of the road carriageway during winter. This should also be considered in any Development applications for private property.

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5. TREE MAINTENANCE AND REMOVALS

(Subject to Councils TPO Process or Planning instrument)

TREE MAINTENANCE

Council recognizes that trees are an important asset with measurable monetary values. Understanding this monetary value helps Council to make decisions about the cost-effectiveness of proactive rather than reactive maintenance activities, including the following.

Inspection

- Council will routinely carry out visual inspections of large trees in high visitation areas of parks (e.g. paths, playgrounds, carparks, playing fields and areas adjacent to private property boundaries).
- Council will prioritize visual inspections of street trees during annual maintenance programs.
- Council will carry out additional visual and technical inspections in response to community concerns or suspicion of a tree's health or safety.
- Sculpting or pruning a tree helps to maintain its appropriate form and function.
- Where appropriate, Council will prune young trees to encourage strong and functional tree growth patterns, and periodically prune branches to address structural weaknesses and prevent foliage from obstructing street signs, traffic, street lighting, powerlines, rooflines, and pedestrians.
- All sculpting and pruning will be carried out by trained and qualified staff.
- Residents can request an inspection of a trees on public land at any time, however removal of any tree is considered an action of last resort. The intention is maintain or increase the tree canopy of the whole of the LGA. Therefore removal of a tree must be followed by replacement planting.

Tree Removal

Trees will only be removed after careful consideration of a number of factors

- Significance and value.
- Life expectancy and condition (health and structure).
- Ongoing maintenance costs.
- Risk to public safety.
- Nuisance level and weed status.

Removing a valued, healthy, structurally sound, functional, low nuisance tree should be considered the last resort.

The consideration to remove a tree may be in response to a customer request or routine inspections and maintenance. The decision will be made by a qualified Council officer or contracted arborist (in accordance with *Tree Removal and Replacement Procedures* and accepted best practice).

The following guidelines apply to all tree removals:

- The removal of highly significant Council trees is to be avoided, unless it forms part of a Tree Management or Succession Plan approved by the Manager Parks & Reserves

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- Council trees will not generally be removed to improve views, to eliminate litter, or to eliminate over-shadowing of private properties. Bushland trees will not be pruned or removed for view.
- Projects and private developments generally require a permit to remove public trees. Council projects require a similar internal process
- The *Tree Removal and Replacement Procedure* and Council's *Vegetation Management Procedure* provide more guidance on tree removal assessment, decision making criteria, community notifications and appeals.

Removal or non-removal of street trees is potentially the greatest cause of conflict in the management of the Council's street trees. Understandably, residents become very attached to a tree that has been living and growing near their home for many years. Prudent tree management requires Council to assume that every tree, no matter how insignificant it may appear, has value to someone.

Unfortunately, it sometimes becomes necessary to remove trees. Tree removal is an inevitable and necessary management strategy. Tree removal may be required when a tree has reached or is approaching over-maturity or when it poses a high risk of injury to persons or damage to property. Trees are living organisms so it is inevitable that they will die. The aging or senescence of trees may take many decades. Over this time, trees become more sensitive to changes in their environment and more susceptible to drought, pests, and diseases. The tree's natural defensive response to wounding becomes less efficient, and older trees may become more susceptible to decay-causing organisms. Decay causes a loss of structural integrity and even healthy looking trees may be prone to mechanical failure (USYD, 2008).

Experience has shown that the concern associated with the removal of trees can be minimised through proper consultation and communication with the community. Trees designated for removal will be identified as such by a notification of 'Intent to Remove' 7 days prior to the intended removal. The notice will state the reason for the removal and give the contact number of the designated Council officer to whom inquiries can be made. However, if the Council believes that a tree is in an imminently hazardous condition, the tree will be removed immediately to ensure public safety.

Street tree removal may also be considered in circumstances where tree removal and replacement has been recommended in a landscape or development application or plan of management. A plan for a timely replacement should be developed with community consultation as appropriate. Manly's Norfolk Island Pines are subject to the Norfolk Island Draft Management Strategy.

Tree Removal of Specific Species

Council currently have a policy to remove *Ficus hillii* trees that are causing damage to buildings or structures this objective will remain the same in terms of reasons for removal given the nature of the root system. Consideration will be given to Tree Species such as Norfolk Island Hibiscus which have glass type fibres in the fruit pods; these fibres cause health issues to people and create issues for small children.

Cupressus Leylandii is a species that has gained notoriety over the last few years because of the speed and size to which the species grows to, given the issues related to this species and recent land and Environment Court judgments that have ordered the removal of such trees. Council discourages the planting of this species.

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Tree Roots

Where trees on Council land have created issues to associated infrastructure, council will inspect the situation and advise the best course of action required. Where infrastructure in private property is affected the property owner will need to contact Council by way of written notification of the related issue. This should contain evidence that the tree has caused the related issue.

Tree lopping for electricity transmission lines.

That the lopping of naturally grown (occurring) trees be carried out by Energy Australia except where special circumstances indicate that these trees would be better handled by the Council in respect of which Energy Australia have accepted a charge from Manly Council.

In respect of ornamental and decorative trees they be handled by the Council at no cost to the Energy Australia

Tree removal Ficus varieties.

Where it can be proved that the trees are causing structural issues to infrastructure, buildings or services or are dangerous or a public risk. That they be replaced with a more suitable type of advanced tree.

That the maximum amount of cost related to tree claims be set at \$10,000 before removal is considered.

Trees ring barking, poisoning, root damage

Council will pay (at its sole discretion) up to \$1,000 as a reward for information leading to a successful prosecution of a person or persons who wilfully damage significant trees in Manly. For the purposes of this policy, significant tree means:-

- A tree protected under the Council's Tree Preservation policy.

A tree which makes a significant contribution to the environment in relation to urban amenity, privacy, aesthetics, heritage, significance, or character of a place or locality.

Tree Preservation Orders

The Tree Preservation Order 2001 (TPO) or planning replacement instrument will be the main tool to regulate and assess applications to prune or remove trees in Manly Council LGA. The use of assessment criteria by tree management staff will ensure a consistent approach to tree assessment.

A number of assessment conditions have been developed which clarifies the Council's attitude and direction with regard to tree management and preservation.

Manly Council will also identify special trees that are of aesthetic, cultural, social, or environmental significance through its Significant Tree Register.

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Trees will also be given adequate protection from construction activities and other activities such as major events that are likely to have an adverse effect on their health and appearance. Australian standard AS 4970/2009.

The Significant Tree Register

The Significant Tree Register is used to record all significant trees or tree stands that should be preserved, including their form and character. Generally, permission will be given under the Tree Preservation Order for remedial maintenance works only, such as removing dead wood. Trees to be registered as significant will require a nomination form to be completed and assessment made by the councils Tree Officer. If approved the trees form and location will be entered on to the register through criteria notification process and enhanced protection of that tree will result. Nominations for the register are open to the general public and application forms are available from the Council.

A significant tree in poor physical condition can still be included on the Register. However, the safety of the property owner, their family, and the public is paramount and, on request, Council will expedite an inspection of a tree in potentially dangerous condition. Permission to remove the significant tree will only be given if all options to render the tree safe and preserve it have been explored but Council is satisfied that the tree's removal is the only reasonable option.

In determining development applications Council will give priority to the preservation of significant trees. The development must aim to maximise the preservation of significant trees or tree stands and the application must include strategies for the maintenance of their long term health. Where a tree(s) not listed on the Register may be affected by a proposed development, and then the tree(s) will be assessed according to the significance criteria listed below, as part of the Development Assessment process. A suitable and timely replacement plan will be developed in conjunction with the community as appropriate.

The assessment methodology for determining significant trees is based on the criteria developed for the Register of the National Estate, in accordance with the Burra Charter. This is a nationally consistent approach to heritage identification and assessment and can be applied to all types of heritage places and items. A thorough physical examination of trees in relation to their natural occurrence or cultural history has been conducted and supported through extensive field work and examination of reports, photographs, archival material, and oral evidence. The collected data has been evaluated on the basis of each tree's (or group of trees) contextual relationship to other similar trees (or groups) and relative importance in terms of the following criteria:-

- *historic and/or natural value* (i.e. indigenous/cultivated origin)
- *botanic/scientific value*
- *social, cultural and commemorative value*
- *visual and aesthetic value*
- *size*

The heritage values for each listed tree or group of trees or landscape has been encapsulated on a Statement of Significance (heritage inventory) which involves interpretation and analysis of comparative points of importance (e.g. values including rarity, biodiversity, individual and/or group, landmark, representative and integrity, research, and social, cultural and spiritual associations). The criteria relate to both

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cultural and natural significance of an item and place. The heritage values of a significant tree or group of trees are almost always multi-layered.

The planning and management of significant trees within a highly urbanised environment raises a number of issues. Many scheduled trees are of a similar age structure. Most of Manly's significant trees were planted during the latter part of the nineteenth century and early twentieth century (Pre-War and Inter-War periods). Essentially, this means that many of these trees, particularly Norfolk Island Pines and Moreton Bay Figs, are rapidly approaching senescence. Rather than this being a long-term phase, the increased level of stress in our urban environment is effectively accelerating the processes of decline. Specific stress related and soil-borne diseases are also on the increase in many populations. Furthermore, these large specimen trees which have contributed so greatly to Manly's historic and cultural landscapes are no longer being planted in most locations. Often there is simply not enough space. In the absence of any staged recruitment for many decades, these ageing cultural landscapes are now in peril and our 'tree environment' would be at risk. This document sets out to develop a co-ordinated strategy to address these issues on an LGA-wide basis.

Manly Council currently facilitates the protection of public and private trees through the Tree Preservation Order 2005. A Schedule of Exempt Species identifies undesirable and nuisance species which are not included under Council's Tree Preservation Order (TPO). Furthermore, trees declared as noxious species under the *Noxious Weeds Act 1993* are also excluded from the TPO. The question, however, is whether the TPO provides adequate protection for significant trees.

Scheduling of significant trees under the provisions of Council's Local Environmental Plan (LEP) establishes clear recognition of heritage values and facilitates improved protection, particularly with respect to development. For this reason, **all** scheduled trees (including individuals and groups) in the Register of Significant Trees will be listed as heritage items (trees) in Council's comprehensive Local Environmental Plan (LEP). Of particular importance is the scheduling of trees assessed as significant at the LGA and/or REGIONAL level (i.e. excluding LOCAL level listings).

It is important to recognise that the Register of Significant Trees is not a static document and should be subject to ongoing review. For example, significant trees which have been scheduled as heritage items in an LEP can be reviewed like other heritage listings (eg. built heritage). Recommendations can be made for continued listing or removal according to any heritage assessment review.

The enhanced status of significant trees should be used to promote broader community awareness and to highlight Council's commitment to the protection of these trees and their contextual landscapes. In this exercise, it is important to emphasise to the community the significance of "place" – not simply recognition of the listed item(s) but an understanding of the value of the trees within the landscape.

These initiatives, which will be promoted by Council as part of an ongoing community based exercise, will ensure ongoing media coverage, website information, and community involvement, opportunities for further nominations and review, and education in appropriate conservation strategies.

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The study also identifies a large number of remnant native specimen trees which have been fragmented and isolated by development. These individual specimens and small populations usually occur within highly modified habitat. Where possible this study recommends that they be retained and encouraged (e.g. along the marine walkway and scenic walkways).

The assessment and management of these individuals and/or remnant populations are Specifically dealt with as part of Council's Biodiversity Conservation Strategy.

How does a tree get on the Significant tree register? Via application form
Is this register reviewed? Register will reviewed every three years
How does a tree get removed from the register? Only after significant deliberation
Who can nominate trees for this register? Anyone can nominate a tree, assessment is made by Council.
Is this register available for public viewing? Yes once fully populated.

Things Which Don't Usually Warrant Removal / Pruning of Trees

Falling leaves, twigs, fruit, and flowers are considered normal expected tree behaviour are not valid reasons for removal under this Strategy.

Similarly, it is Council's policy that no individual exclusively owns a view. Therefore, Council will not give consent to remove a street tree's canopy for view enhancement. Pruning will only be considered where more than 75% of the available view has been obscured and suitable photographic evidence of the original view can be supplied by the long term owner (this is not zoomed Real Estate state photos).

Proof must be supplied to Council in the application process. Any pruning works is paid for by the applicant, before work is undertaken. Council will not carry out pruning of trees on public land if the pruning will be detrimental to the tree. Council reserves the right to refuse pruning in this situation.

Street Tree Removal Strategies

Trees have finite life spans and must be removed as they die. Trees are also removed when their health, appearance, or structural integrity declines. Two common tree removal strategies are discussed below.

If possible significant trees that are nearing their natural life span will be identified in a timely way and a succession plan developed while consulting with the community if possible.

Selective Tree Removal

Selective Tree Removal is the removal of individual trees as necessary. This strategy can be used where suppressed or hazardous trees are to be removed from a street. This strategy requires consultation from Council's Tree Management Officer to determine potential impacts on adjacent trees such as wind loading and residual damage.

However, the removal of individual trees, especially within groups must be carefully considered. In some cases, selective removal is not recommended when a new tree is to be replanted. The competition for light, water and nutrient resources can jeopardise the health, form and amenity value of the young replacement trees.

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Block Removal

Block removal is used to remove and replant entire groups of trees. This is the most effective removal strategy as the location and species selection of the replacement trees can then be carefully managed to ensure a long-lived, attractive, healthy, and structurally sound tree population.

Removing sections of trees from a street is likely to impact on the canopy cover and amenity of the immediate area in the short-term. However, in most cases, the medium and long-term benefits of overcoming the difficulties of suppression will far outweigh the short-term costs. In addition, block removal can be strategically staged to minimise the visual impact on the street.

Street Tree Removal Categories

The following categories of street tree removals have been developed to streamline the process of obtaining consent for such works.

Category 1

The following categories of street trees can be removed by Council staff or contractors as part of normal tree maintenance with the approval of Council's Tree Management Officer:

- A. Dead street trees, unless they are of habitat value;
- B. Street trees < 10m tall;
- C. Street trees < 3 years old, unless they were planted using >100L stock
- D. Street trees < 10m tall deemed to pose an imminent risk of injury to persons or significant property. These are defined as those that have been identified as having a defect or fault that may cause injury or property damage if not removed such as:
 - being dead or in an advanced stage of decline;
 - being structurally unsound – Street trees with a high chance of failure within the next 5 years;
 - street trees causing major damage to public utility or private infrastructure (where the problem cannot be overcome by an engineering solution);
 - street trees causing an inequitable or disproportionate hazard or impact on the local area due to their location (where the problem cannot be corrected by pruning or an engineering solution).

Category 2

The following categories require approval from Council's Parks Manager (technical staff's involvement should be limited to providing professional technical opinion; decisions requiring political or discretionary judgement should be made by management):

- A. Street trees greater than 10 m tall;
- B. Street trees of heritage significance regardless of size;
- C. Street trees listed on the Significant Tree Register;
- D. Multiple street trees in a single street or whole street tree removals as proposed as part of the Council capital works tree replacement programme.

Development & Street Tree Removals

Under some circumstances, Council may agree to the replacement of a street tree provided all of the following criteria are met:

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- The tree has a useful life expectancy of < 5 years (as determined by Council's Tree Management Officer);
- The applicant agrees to pay the cost of removing the tree/s;
- The applicant agrees to pay planting and establishment costs for replacement tree/s.

Replanting should be undertaken in accordance with Council's Street Management Strategy and Master plan.

APPENDIX

6. LEGISLATIVE & STANDARD REQUIREMENTS

RISK MANAGEMENT

The following legislative requirements should be considered as part of tree-related risk:

- **Management Procedures**

Risk Management is a well-established concept in the management of public spaces. Acceptable levels of risk have been recognised or defined for most basic infrastructure elements such as footpaths, curbs, streets, playgrounds and utilities. Typically, these elements are assessed and managed according to acceptable levels of risk that are specified within written policies or enacted through management practices. A successful risk management program provides a community with a systematic approach to implement corrective actions within a reasonable time frame (State-wide Mutual, 2003).

The goal of a risk management program should not be to strive for zero risk, as this would be unattainable. Rather, the goal should be to reduce the hazard to a level that meets professional standards and demonstrates reasonable care. Tree risk management requires a balance between managing the risks to the safety of people and infrastructure whilst acknowledging the significant social, environmental, economic, and cultural benefit of trees within the landscape (State-wide Mutual, 2003).

- **Australian Standard**

AS 4360:1999 says, "Risk Management is a process consisting of well defined steps which, when taken in sequence, support better decision making by contributing to a greater insight to risks and their impacts. It is as much about identifying opportunities as it is about avoiding losses. By adopting effective risk management techniques you can help to improve safety, quality, and business performance in your company." The risk management defined by Australian Standards is a broad-based all encompassing philosophy, which is applicable to virtually all aspects of management practice. AS 4360:1999 lists the main elements of the risk management process as:

- establishing the context
- identifying the risks
- analysing the risks
- evaluating the risks

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- treating the risks
- monitoring and reviewing the process
- Communicating and consulting about the process.

- **State-wide Mutual**

State-wide Mutual in its *Best Practice Manual – Roads*, says “Risk Management is the systematic application of management policies, procedures, and practices to the tasks of identifying, analysing, assessing, treating, and monitoring risks. The first step undertaken in any risk management program is the process of determining “what can happen, why and how”. The difference between the two definitions reflects the narrower, more specialised viewpoint of State-wide Mutual, which more closely matches Council's interest. Council is obviously concerned with the risk of incurring significant costs through public liability claims. State-wide Mutual, and hence Council, is intent upon reducing the risk and/or reducing the losses.

- **Environmental Planning & Assessment Act 1979**

Allows planning instruments to be used specifically for protecting and preserving trees or vegetation and protecting and conserving native animals and plants, including threatened species, populations and ecological communities and their habitats.

- **Tree (Disputes between Neighbours) Act 2006**

The Tree (Disputes between Neighbours) Act 2006 commenced on February 2007 and was intended to assist with the management and resolution of disputes in relation to trees occurring between neighbours. The Tree Act establishes a mechanism for a landowner to take action against his/her neighbour where trees are causing or likely to cause a dispute.

The Tree Act enables the NSW Land and Environment Court to make orders to remedy, restrain, or prevent damage to property or to prevent injury to any person when a tree that is situated on adjoining land is likely to cause damage or injury. The Tree Act also enables the court to order compensation for the rectification of damage caused by a tree.

The Act applies to trees which are on privately owned land in a “residential” zone (but not “rural-residential” zones) or in zones called “village”, “township”, “industrial” or “business” or zones which are of the same type as such a zone but may be called a different name. The Act does not apply to trees on land owned or managed by a Council. However, during 2009 the Tree Act 2006 will be reviewed by the Attorney General's Department. It is understood from the Hansard Papers (2006); the Attorney General intends to include council trees in the Act following this review.

Insert Clause 5.9 of the draft Manly LEP

Heritage provision Clause 5.10 and schedule 5 Environmental Heritage Refer also to Manly Heritage Inventory.

- **Local Government Act 1993**

Provides for environmental protection through regulation. This allows Council to issue an order to a person to do or refrain from doing various activities which may have environmental impact.

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- **Threatened Species Conservation Act 1995**
Places significant responsibility on Council for the protection of threatened species and their habitat during development assessment. The TSC Act provides schedules of threatened species, populations or ecological communities or their habitats.
- **Heritage Act 1977**
Provides for making an Interim Heritage Order or listing in the State Heritage Register to protect places of scientific, natural, or aesthetic significance and any vegetation thereon.
- **Occupational Health and Safety Act 2000 (OHS Act)**
This act aims to protect the health, safety, and welfare of people at work. It lays down general requirements for health, safety, and welfare, which must be met at all places of work in New South Wales.
- **Roads Act 1993**
The roads authority may, despite any other law or Act to the contrary, remove or lops any tree on or overhanging a public road if it is necessary to do so for the purpose of carrying out road works or removing a traffic hazard.
- **Electricity Supply Act 1995**
The owner of electricity lines must keep trees and vegetation clear of wires to prevent electric shock. The electricity distributor may carry out tree trimming works in emergency situations or failing any action by the property owner.
- **Electricity (Tree Preservation) Regulation 1995**
Electricity distributors must not remove or trim a tree in any way that substantially damages the tree unless it is of the opinion it is necessary to do so to protect its power lines or for safety reasons.
- **Civil Liability Amendment (Pers. Responsibility) Act 2002**
The passing of the NSW Civil Liability Amendment (Personal Responsibility) (NSW CLAPR) Act 2002 has considerably changed the public tree management situation in NSW. The case of *Brodie vs. Singleton Council* (206 CLR 512 Brodie) triggered repeal of the longstanding non-feasance immunity accorded to NSW roads authorities.

The repeal meant that NSW roads authorities have become strictly responsible for knowing the condition of every artificial structure (trees in the road reserve have been determined by the High Court of Australia to be 'artificial structures') within their road network, as well as being held responsible for implementing whatever action at whatever cost is required to repair every defect found during routine inspections. The NSW CLAPR Act 2002 reinstated the non-feasance immunity for roads authorities by preventing the Courts from challenging the resources and funds that a roads authority allots to roads management; this includes resources for managing 'artificial structures' such as trees.
- **Australian Standard 4373 Pruning of Amenity Trees (2007)**
This Standard describes methods for pruning of trees and encourages correct and uniform practices. This standard is intended for use on amenity trees and includes formative pruning, hazard reduction, selective pruning, and thinning.

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- **Building Code of Australia**
The Building Code of Australia (BCA) has been given the status of building regulations by all States and Territories. The goals of the BCA are to enable the achievement and maintenance of acceptable standards of structural sufficiency, safety (including safety from fire), health, and amenity for the benefit of the community now and in the future.
- **Workcover Code of Practice for the Amenity Tree Industry**
This code provides guidance on safety requirements for the amenity tree industry. It is intended as a guide to the public and private sectors in meeting their requirements under the Occupation Health and Safety Act 1983.
- **Workcover Code of Practice for the Excavation**
This code provides guidance to prevent injury to persons engaged in excavation work on construction work sites.
- **Workcover Code of Practice for the Risk Assessment**
This Code of Practice assists employers in their obligations under the Occupational Health and Safety Regulation 2001 to identify any foreseeable hazards that may arise in the workplace and to assess the risk of harm arising from the identified hazards.
- **Workcover Code of Practice for the Work near Overhead Power Lines**
The aim of this code of practice is to protect the health and safety of persons from the risks arising when they are working near overhead power lines and associated electrical apparatus.

TO BE DEVELOPED

7. PRECINCT STREET TREE PLANS

This section of the Street Tree Management Plan provides a template for future tree planting in the City's streets. The locality approach addresses local issues and provides appropriate treatments on an individual street basis.

The following Precinct Guides divide Manly Council City into 12 localities. Localities have been defined using the existing precincts used by Manly Council for community interactions between the Council and its residents. Each Precinct Guide provides a brief background to each area and describes its current character. It also outlines existing, proposed, and trial street tree species. Together with the Locality Guide, the Street Summary Table outlines the existing street conditions with regard to tree planting for each street in the City. Detailed maps of each precinct indicate nominated tree species for every street.

Precinct community forums will be invited to have input into proposing street trees or nominating trees of special note in their area to be included in this policy

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THE CORSO

The Corso Precinct has a mix of building from the relative intensity of the CBD which has the iconic Corso lined with two or three storey shops fronting a paved street with fountains, palms and various lovely large fig trees - Hills and Morton Bay.

Outside this area there are many open wide tree lined streets most lined with the original Norfolk Island Pines with pavements as well as smaller streets with varying architectural styles from four storey apartments to single storey cottages. The soil is all sand and low in nutrient.

Parks and reserves in area; Ocean Beach Reserve, West Esplanade, Gilbert Park.

Predominant Land Use: Residential with a vibrant and iconic CBD.

Predominant Existing Species: (TBA)

Proposed Species: TBA

Trial Species: TBA

LITTLE MANLY

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Little Manly is characterised by well proportioned, tree lined streets with grassed verges. The prevailing architectural styles are two storey houses dating from the early half of the 20th Century.

The streets are all well furnished with trees some quite spectacular ranging from Norfolk Island Pines and Hills Figs to various eucalypts and exotics.

There are various parks and reserves with tree ranging from exotics to native angophora. The soil types in Little Manly are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and reserves in area: Peace Park, East Esplanade Reserve, Little Manly Point Park, Little Mmanly Beach Reserve, North Head Reserve.

Predominant Land Use: Residential

Predominant Existing Species: *TBA*

Proposed Species: *TBA*

Trial Species:

DRAFT DOC ONLY

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FAIRY BOWER

Fairy Bower is characterised by well proportioned, tree lined streets some with grassed verges and significant trees. The prevailing architectural ranges from single storey bungalows dating from the early half of the 20th Century to a few multi storey tower apartments. The soil types in Fairy Bower are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area; North Head, Marine Parade, Cabbage Tree Bay

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species: TBA

Trial Species:

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OCEAN BEACH

Ocean Beach is characterised by well proportioned, varied tree lined streets many Norfolk Island Pines with variation in width of verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century including Federation bungalows, inter-war cottages and many recent multi story apartment units on the ocean front. The soil type in Ocean Beach is sandy low nutrient soil.

Parks and Reserves in the area: North Steyne Reserve, Manly Golf Course, Lagoon Reserve

Predominant Land Use: Residential

Predominant Existing Species:

TBA
Norfolk Island Pines
Norfolk Island Hibiscus

Proposed Species:

TBA

Trial Species:

TBA

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IVANHOE PARK

Ivanhoe Park is characterised by well proportioned, tree lined streets with varied verge types. The Trees in this precinct are often exotic and flowering [e.g. bauhinias]. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century including Federation bungalows, inter-war cottages, post-war cottages and some multi-storey apartments.

Ivanhoe Park has many trees of exceptional interest and is subject to a separate POM. The soil types in Ivanhoe Park are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: Ivanhoe Park (possible Botanic Garden or Arboretum), Manly Golf Club, Cemetary

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species: TBA

Trial Species:

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FAIRLIGHT

Fairlight is characterised by many tree lined streets and a long water frontage lined with the iconic Norfolk Island Pines. The prevailing architectural style is two storey houses dating from the late 19th century and early half of the 20th Century as well as some multi storey units. The soil types in Fairlight are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: Manly Scenic Walkway

Predominant Land Use: Residential

Predominant Existing Species:

Proposed Species: TBA

Trial Species:

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NORTH HARBOUR

North Harbour is characterised by well proportioned, hilly sometimes winding tree lined streets with varied verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century as well as two storey houses. Trees on these streets vary but are usually exotic and often flowering [eg. bauhinias, magnolia grandiflora, etc] the soil types in North Harbour are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: North Harbour Reserve, Wellings Reserve

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species: TBA

Trial Species:

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BALGOWLAH

Balgowlah is characterised by well proportioned, varied tree lined streets with sometimes wide verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century including Federation bungalows, inter-war cottages, and post-war cottages. The soil types in Balgowlah are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: Balgowlah Golf Course

Predominant Land Use: Residential

Predominant Existing Species:

Proposed Species:

Trial Species:

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BALGOWLAH HEIGHTS

Balgowlah Heights is characterised by well proportioned, winding hilly with varied tree lined streets with verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century including Federation bungalows as well as two or three story houses. Street trees are of various types including native eucalypts. The soil types in Balgowlah Heights are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area; Sydney Harbour National Park, Wellings Reserve, Tania Park

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species: TBA

Trial Species:

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CLONTARF

Clontarf is characterised by well proportioned, hilly winding tree lined streets with varied narrow, elevated, or wide verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century as well as two or more storey Houses on substantial tree clad blocks. The soil types in Clontarf are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: Clontarf Reserve, Fisher Bay, the Spit and Ellery's Punt Reserve

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species: TBA

Trial Species:

DRAFT DOC ONLY

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SEAFORTH

Seaforth is characterised by well proportioned, sometimes long, or winding tree lined streets with a mixture of narrow and wide verges. The prevailing architectural style is single storey bungalows dating from the early half of the 20th Century as well as two storey more substantial housing, blocks often include substantial native trees. soil types in Seaforth are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area: Sangrado Park

Predominant Land Use: Residential

Predominant Existing Species:

Proposed Species:

Trial Species:

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NORTH SEAFORTH

North Seaforth is characterised by well proportioned, tree lined streets with wide verges. The prevailing architectural style is single or two storey houses many with substantial trees in the garden. The soil types in North Seaforth are Hawkesbury Sandstone producing sandy low nutrient soil.

Parks and Reserves in the area; Seaforth Oval

Predominant Land Use: Residential

Predominant Existing Species: TBA

Proposed Species:

Trial Species:

8. POSSIBLE TREE DEVELOPMENT PROJECTS FOR THE MANLY LGA

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(For discussion)

- A. Manly Gateway Projects
 - a. Sydney Road & Spit Bridge
 - b. Avenue along Kenneth Road
 - c. Spit Bridge Garden (Ellery Punt Reserve?)
 - d. Sydney Road, Condamine Street
 - e. Sydney Road & Belgrave Street
- B. Large Tree Renewal project for East Esplanade Reserve (Ficus rubiginosa, Ficus machrphylla, Norfolk Island Pines, etc.)
- C. Tree Renewal on Marine Parade Walkway (Surf Club to Shelley Beach)
- D. Historic & Cultural Tree Renewal on Manly Scenic Walkway
- E. Federation Point to North Harbour / Fairlight
- F. Bush regeneration on Manly Point / Peace Park
- G. Upgrade trees in Addison Road / Stuart Streets [and/or other streets as suggested by residents]
- H. Norfolk Island Pine replacement based on historical records in various streets. Renew Arboretum concept in Ivanhoe & Gilbert Parks (review Mudgee Municipal Arboretum project)
- I. Wildlife corridors
- J. Street Tree Replenishment project
- K. Norfolk Island Pine replacement trees

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MANLY COUNCIL Tree Preservation Order 2001

ADOPTED as a resolution of Council 2nd July, 2001
(pursuant to Clause 8, Model Provisions) and amended 2nd
December 2008.

1. Aims & Objectives

Manly Council's policy is to maintain attractiveness, appeal and amenity of the Manly area by preserving healthy trees in recognition of the value and importance of trees held by the community.

The Tree Preservation Order applies to trees on both privately and publically owned land and prescribes those trees not requiring Council's written authorisation to remove or prune and those that need a written consent notice to be issued and the conditions applying.

The Tree Preservation order applies to the whole of Manly.

The tree preservation order prevents and prohibits:

- ringbarking
- chopping
- topping
- lopping
- soil build up around trunk
- removal
- injuring
- willful destruction of any tree or trees within Manly.

2. Applying to remove a tree

A property owner or managing agent must complete an application to Council for removal/or pruning more than 10% of a tree. If a person seeks permission to remove a tree from a neighbouring property, permission must first be obtained from the owner of the tree prior to an application being lodged with Council for consent to remove a tree. In the case of a block of units, the consent of the owner's corporation must be obtained prior to making an application to Council to remove/prune the tree.

Where consent is given the owner they must display a copy of the permit at the front of the property prior to initiating work and notify the adjoining owners of consent.

3. Council assessment of applications to remove or prune trees

- condition of the tree with respect to disease
- necessity for removal or pruning in order to construct improvements to the property the subject of an application
- effect of erosion - soil retention and diversion or increased flow of surface water
- number of trees and effect on the amenity of the area
- number of healthy trees an area of land will support
- habitat for fauna

4. Trees/plants not requiring Council's consent for removal or pruning

- Trees with trunk diameter less than 25cm and a height less than 5m (the trunk diameter should be measured 1m above ground level) on private property only.
- All vegetation on the MANLY COUNCIL noxious weeds list.
- Dead trees where technical evidence can be provided to show they are dead.
- The following species:

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- *Alnus altissima* Tree of Heaven
- *Alnus acuminata* Evergreen Alders
- *Arecastrum romanzoffii* Cocos palms
- *Carica papaya* Paw paw
- *Cinnamomum camphora* Camphor laurel
- (under 10m in height)
- *Citrus* sp. All Citrus
- *Eriobotrya* sp. Loquat
- *Erythrina x sykesii* Coral tree
- *Ficus elastica* Rubber tree
- *Gleditsia triacanthos* Honey locust
- *Lagerstroemia* Crepe myrtle
- *Liquidambar styraciflua* Liquidambar
- (under 10m in height)
- *Morus* sp. Mulberry tree
- *Nerium oleander* Oleander
- *Olea africana* African Olive
- *Populus* sp. Poplars
- *Pittosporum* sp. Pittosporum (up to 8m)
- *Prunus* sp. Prunus
- *Robinia pseudoacacia* False Acacia
- *Schefflera* sp. Umbrella tree

5. Council consent for removal may be granted when:

- (a) tree is growing within 3m of a:
 - building or structure
 - sewer or drainage line
 - inground pool
 - retaining wall over 60cm in length
 - double brick wall over 1m in height—where there is evidence that such trees have damaged or are likely to damage these structures or services)
 - (b) The tree is in a location that will obstruct the process of approved building works, road works or public utility installations.
 - (c) The tree is causing illness or allergic reaction and a claim can be supported by a medical certificate and Council is satisfied that the specific tree is the cause of the problem.
- 19 December 2008 PRIVATE ADVERTISEMENTS 12937 NEW SOUTH WALES GOVERNMENT GAZETTE No. 158
- (d) A property has been over planted - removal of the tree/trees will be to the benefit of the remaining trees.
 - (e) A tree has been damaged in heavy storms by lightning or wind etc and could cause future problems if not removed.
 - (f) A tree is in danger of falling or causing danger to people, buildings or services.

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6. Pruning for View

When Council receives an application to prune a tree for view the following procedure is followed:

- (a) if the tree is on private land the property owners written consent will be required before arranging an appointment with a Council officer for inspection - Council cannot force an owner to allow a tree to be pruned or removed
- (b) pruning will only be approved if it will not be detrimental to the health of a tree
- (c) evidence must be provided to show that the present owner (not the previous owner) had a view of the harbour or ocean, lagoon or other water body
- (d) approval will be granted only if 2/3 of a view has been lost from a single location selected by the owner, i.e. balcony, living room etc.
- (e) a maximum of 20% of a tree's foliage can be pruned
- (f) all tree pruning for view on Council land is paid for by the applicant, before work is undertaken.

7. Tree pruning not requiring Councils consent

Up to 10% of a trees foliage can be pruned without Council consent. This allows residents to undertake maintenance pruning for the purposes of removing deadwood or roof/ gutter / window clearance.

8. Council consent for additional pruning may be granted when:

- (a) the tree in the opinion of Council is causing loss of enjoyment of the property through over shadowing and evidence is supplied
- (b) the tree has been subject to storm damage, or repeated branch shedding
- (c) limbs are over dwellings or home entertainment areas, judicious reduction of those limbs will be allowed after inspection
- (d) limbs overhang boundaries or fences, judicious pruning will be allowed if it is not detrimental to the overall health of the tree
- (e) limbs obstruct access by pedestrians or vehicles
- (f) limbs cause vision obstruction or other traffic hazards
- (g) where trees grow over boundary lines, then 1/5 of the foliage hanging over the boundary may be pruned.

This Tree Preservation Order does not apply to reasonable trimming and pruning for care & maintenance and preservation of light, views and amenity. Reasonable trimming is defined as: removal of no more than 1/5 of the foliage of a tree, in a manner which does not affect the appearance, integrity or health of the tree. Residents are advised to seek Council inspection prior to any pruning which would cause concern to neighbours.

Where boundaries are concerned 1/5 of the foliage hanging over the boundary may be pruned. This 1/5 in all cases should be carried out within a regulated time frame (this would be no more than twice a year) so as not to be detrimental to the tree.

9. Removal of trees on development sites Trees must be shown on your Development Application (DA) plans:

- (a) If the trees on the site are over 5 metres tall.
- (b) Where trees will have building or site works carried out within 5 metres of the trunk or within the area of the canopy.
- (c) Where trees are on your boundary, but are your neighbours or Council trees and will be affected as in point (b) above, these must be noted on your plans.

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- (d) Where trees are in the 'footprint' of the building, deck areas, proposed driveway, proposed swimming pool or garage, these affected trees must be marked on the plans submitted:
 - (i) a tree preservation inspection is not required for trees on Development Approval (DA) sites (trees are assessed at the DA and/ or subdivision stage)
 - (ii) a tree removal permit will not be issued prior to application for a DA or subdivision, or for trees that are not included on your plans
 - (iii) clearing a property of trees prior to approval of a DA, is a breach of the Tree Preservation Order & Soil Conservation Act.
- (e) Landscape plans are to be submitted with a DA and should indicate proposed, existing and replacement planting if a tree is required to be removed.

10. Replacement trees

Where Council allows the removal of trees it is generally on the condition that a replacement tree be planted. Replacement trees must be planted within 2 months of the removal of the old tree. In selecting replacement trees care should be taken to select species appropriate to your circumstances.

11. Issuing of the Permit

A permit will only be issued if the owner of the tree, or the owner of land over which the tree is growing, is agreeable to removal or pruning of the tree. The issuing of Tree Preservation Order permits does not give any rights to trespass in order to carry out pruning; these permits can only be issued by an authorized Council Officer.

A permit is not required for trees on public lands, however Council adheres to its policy on tree removal and through its consultation process notifies residents and precinct of any proposed removals to seek any objections prior to any removal.

12. Administration of the Tree Preservation Order

Authority to administer the Tree Preservation Order is delegated to the Parks Management Co-ordinator or other officers delegated by the General Manager.

Further information can be obtained from the Customer Service desk on 9976 1500.