



# TREE MANAGEMENT POLICY P1.0012.2

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# TREE MANAGEMENT POLICY

**DIVISION:** Community Assets

**BRANCH:** Open Space and Sustainability

**CATEGORY:** 2

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## PART 1 - INTRODUCTION

### 1. BACKGROUND

- 1.1 This policy relates to the management of trees located within public and private land.
- 1.2 Camden has a rich diversity of natural, cultural and urban landscape settings.
- 1.3 Natural areas including bushland remnants are typically found in riparian corridors, public reserves and in private land. Cultural landscapes are found in public and private ownership and reflect different historical phases of Camden's development while urban landscapes are generally associated with residential developments.
- 1.4 Trees are important elements of the local amenity and provide a sense of place.
- 1.5 Trees are vital environmental components providing tangible health, wellbeing and economic benefits or ecoservices to the community. Other benefits include but are not limited to:
  - a) Climate resilience through shade and wind breaks
  - b) Improved air quality by absorbing air pollutants
  - c) Reducing soil erosion and run-off
  - d) Habitat for local fauna
  - e) Softening the built environment
  - f) Reflecting natural and cultural values.
- 1.6 Current and projected urban growth is having a transformative effect on the Camden LGA. Competing pressures on available land to accommodate varied and affordable housing, and service infrastructure is providing new challenges for establishing green amenity.
- 1.7 Development density and reduced lot size in most cases precludes upper canopy tree establishment on private land therefore increasing the need for trees in the public domain.

- 1.8 This Tree Management Policy provides a mechanism for ensuring the values Camden residents place on its trees are reflected through contemporary management and appropriate use of species of known qualities and performance to enhance urban, natural and cultural heritage treescapes vision for how Camden will look in the future.

## **2. OBJECTIVE**

- 2.1 The objective of this policy is to provide guidelines to ensure consistency in the management of tree assets and tree selection within the Camden Local Government Area (LGA).
- 2.2 To provide an indicative species list suitable for planting in public and private open space within Camden LGA.
- 2.3 To ensure the species list draws on Camden's unique natural heritage and rich culturally historic landscapes.
- 2.4 To identify plant species not suitable for use on public land and not recommended for planting on private land within the Camden LGA.
- 2.5 To promote the Tree Management Policy as a resource to assist Landscape Architects, Developers, Public Authorities and Residents to make informed decisions about tree selection.
- 2.6 To update and supplement the species list with new varieties that have proven characteristics and performance suited for use within Camden LGA.
- 2.7 To ensure that suitable trees are chosen for the location and managed appropriately.
- 2.8 To ensure trees located on private land are managed in accordance with relevant legislation, namely State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and Camden Development Control Plan 2019.
- 2.9 For Council, within the limitations of resources:
  - a) Manage, enhance and conserve the amenity of the streetscape and/or open space trees;
  - b) Acknowledge trees as important components of the urban/rural landscape;
  - c) Ensure public trees are managed to best practices;
  - d) Meet Council and Community expectations.

### 3. SCOPE

- 3.1 This policy applies to all departments within Council and is a principle source for tree species to be used within Camden LGA.
- 3.2 Council encourages stakeholders, land owners, landscape architects and developers to incorporate the species palette endorsed by Council, where tree planting is proposed for public and private open space.
- 3.3 The Tree Management Policy is intended for use by:
- a) Camden Council employees and contractors – as a guide for the provision and management of street trees and trees within parks and reserves;
  - b) Landowners and developers – To assist in the selection of tree species and understanding of Council’s management of trees; and
  - c) The Community – To foster better understanding of tree management.

### 4. DEFINITIONS

|                          |  |
|--------------------------|--|
| <b>Community</b>         | Includes residents, businesses, schools, Camden Council staff, and visitors to the area;   |
| <b>Danger</b>            | Potential for a tree’s imminent failure and collapse in full or part, posing an immediate risk of hazard to the safety of persons or damage to property;                               |
| <b>Hazard</b>            | The threat of danger to persons or property from a tree or tree part resulting from changes in the physical condition, growing environment, or existing physical attributes of a tree; |
| <b>Public Open Space</b> | Open space in a public ownership that is usually accessible to the public, eg. Parks, bushland reserves, cemeteries;   |
| <b>Public Tree</b>       | A tree that is managed and owned by Council;   |
| <b>Tree Management</b>   | Planned protection, conservation, maintenance and enhancement of a population of trees;  |
| <b>Risk</b>              | The random or potentially foreseeable probability that a hazard will cause harm or damage to people and infrastructure;  |
| <b>Urban Forest</b>      | A single or group of trees that stand within the urban environment.  |

## PART 2 - POLICY STATEMENT

### 5. GUIDELINES FOR TREE MANAGEMENT – PUBLIC LAND

- 5.1 Council is committed to managing and maintaining public trees in accordance with best practices to ensure public safety minimise nuisance and benefit of the community. Trees constitute an important element to the amenity of Camden and are a considerable asset.
- 5.2 Develop management principles for public trees.
- 5.3 Manage public trees in accordance with Council's Tree Management Strategy (Public Land) ie, removal, replacement, identification of additional planting locations, etc.
- 5.4 Ensure all public tree management and maintenance practices are carried out in a safe manner.
- 5.5 Educate the community on the environmental and social benefits of trees.
- 5.6 Consult with the community on large tree management projects that have a significant or direct impact on the community.
- 5.7 Manage public trees that are of significant historic, cultural, commemorative or aesthetic importance and those that define the character of an area.
- 5.8 Recognise and preserve canopy cover and corridors and vistas.
- 5.9 Protect and enhance habitat and wildlife corridors in conjunction with Councils management of natural areas.
- 5.10 The Land and Environment Court (LEC), has published a tree dispute principle in the case *Barker v Kyriakides* 2007 LEC 292 which states:

*For people who live in urban environments, it is appropriate to expect that some degree of house exterior and grounds maintenance will be required in order to appreciate and retain the aesthetic and environmental benefits of having trees in such an urban environment. In particular, it is reasonable to expect people living in such an environment might need to clean the gutters and the surrounds of their houses on a regular basis.*

*The dropping of leaves, flowers, fruit, seeds or small elements of deadwood by urban trees ordinarily will not provide the basis for ordering removal of or intervention with an urban tree.*

Council adopts and applies this principle.

- 5.11 Council acknowledges that it is excluded from the Trees (Disputes between Neighbours) Act 2006 as per section 4(2)(a), however will manage and coordinate works on public land as outlined in Council's Tree Management Strategy (Public Land) to ensure the best outcome is achieved for the community.

- 5.12 Tree management is a way of mitigating potential risks to property and the community due to interference with below or above ground infrastructure and/or other assets such as buildings or services, trees require effective and coordinated management to maximise their benefits to the community and the environment against their risks.

## **6. GUIDELINES FOR TREE PRESERVATION**

- 6.1 Prescribed trees and vegetation located on private property within Camden Local Government Area are protected by legislation. Detail on Camden's tree preservation controls are prescribed in the State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and Camden Development Control Plan 2019.
- 6.2 A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation without first obtaining;
- (a) development consent, or
  - (b) a permit granted by the Council
- 6.3 A tree or vegetation is prescribed as being any tree, sapling or shrub which meets or exceeds one of the following;
- (a) is 3 metres or more in height;
  - (b) has a circumference of 300mm (100mm diameter) or more at a height of 1 metre above natural ground surface; or
  - (c) has a branch span of 3 metres or more.
- 6.4 Some exemptions apply and are detailed under Section 2.4 of Camden Development Control Plan 2019
- (a) These controls are in place to provide criteria for permitting removal and appropriate management of prescribed trees and vegetation, establish exemptions that may apply under certain circumstances, ensure that stakeholders are notified where proposals involving tree removal are likely to impact on local amenity and ensure where appropriate tree removals are offset by replacement planting so that overtime there is no net loss of Camden's biomass.

## **7. GUIDELINES FOR TREE SELECTION**

- 7.1 The Tree Management Policy shall be used as the principle source for tree species to be used in Camden LGA.
- 7.2 Council encourages stakeholders, land owners, landscape architects and developers to incorporate the species espoused in the 'Tree and Landscape Species List' where tree planting is proposed for public and private open space.
- 7.3 The species will be selected for their suitability for specific application such as street trees or for open space.

- 7.4 Council will not approve the planting of street trees or tree planting on public land using tree species identified as not being suitable and will discourage private land owners from planting unsuitable trees.
- 7.5 The onus will be on the proponent to demonstrate that an alternate species can reliably perform within known constraints associated with the proposed use or intended location.
- 7.6 Council takes a whole of life approach to tree management and understands that trees need room to grow, will require formative pruning when young, that they may cause superficial damage to hard structures that have shorter lifespans like footpaths and guttering and that for many decades will not require any maintenance and then at some distant point in the future will need to be pruned or removed to allow for succession planting.

## **8. REVIEW**

- 8.1 This policy is to be reviewed every four (4) years by Council, to ensure it aligns with Camden Council's vision and strategies.
- 8.2 Appendices to this policy including the 'Tree and Landscape Species List' will be reviewed on a regular basis and updated accordingly. All updates will be forwarded to Council's Executive Leadership Group (ELG) for approval and adoption.

## **9. APPENDICES**

- A.** Tree Management – Tree and Landscape Species List;
- B.** Tree Management – History of Camden Trees and Landscape.

\* \* \*

**RELEVANT LEGISLATIVE INSTRUMENTS:** *Environment and Planning Assessment Act 1979*  
*State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017*  
*Local Government Act 1993*  
*Biodiversity Conservation Act 2016*  
*Roads Act 1993*

**RELATED POLICIES, PLANS AND PROCEDURES:** Camden Community Strategic Plan  
Camden Development Control Plan (DCP) 2019  
Tree Management Strategy (Public Land)  
Local Biodiversity Strategy for Camden LGA  
Sydney Region Growth Centres State Environmental Planning Policy  
Camden Growth Centre Precincts Development Control Plan 2013  
Oran Park and Turner Road Development Control Plan

**RESPONSIBLE DIRECTOR:** Director Community Assets

**APPROVAL:** Council

**HISTORY:**

| <b>Version</b> | <b>Approved by</b> | <b>Changes made</b> | <b>Date</b> | <b>EDMS Number</b> |
|----------------|--------------------|---------------------|-------------|--------------------|
| 1              | Council            | New                 | 24/02/2015  | 15/224498          |
| 2              | Council            | Minor amendments    | 26/11/2019  | 20/28690           |





# **APPENDIX A**

## **Tree and Landscape Species List**

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## RECOGNISED TREE SPECIES

Trees and vegetation contribute to local amenity and help make our urban environment livable by ameliorating climatic extremes, improving air quality, providing habitat, reducing erosion and salinity. Future development in the Camden LGA will place significant pressure on existing trees and space for new trees as available land becomes increasingly scarce. This subsection aims to prevent unnecessary tree and vegetation removal and poor tree and vegetation management.

This list is to provide an indicative species palette suitable for planting in public and private open space within Camden Local Government Area (LGA). This list is not limited to those recorded and should an alternative species be identified, the species must be suitable for the intended location and be approved by Councils officers.

The selection of street trees should have regard to the following but not limited to:

1. Utilities (Power/Gas/Water/Sewer/etc);
2. Street lighting;
3. Easements;
4. Driveways and bus stops;
5. Pedestrian crossings;
6. House frontages and set backs'
7. Lateral spread of subject species'
8. Road reserve widths and constraints;
9. Waste service collection
10. Vehicle line of sight; and
11. Cultural and heritage amenity.

# Note: The heights and widths listed should be used as a guide and may differ in different situations.

## NEW STREET TREE PLANTING

**List Objective:** All new street trees planted within Camden LGA are confined to the following list of tree species.

**Application:** Street tree selection is contingent upon potential site constraints. Not all trees listed below will be suitable for every situation. Where a variation to the list is proposed the onus will be on the proponent to demonstrate that an alternate species can reliably perform within known constraints associated with the proposed use and location.

| Botanical Name  | Common Name             | Origin                   | Type                           | Height    | Width     |
|---|-------------------------|--------------------------|--------------------------------|-----------|-----------|
|   |                         | Native (N)<br>Exotic (E) | Deciduous (D)<br>Evergreen (E) | In Metres | In Metres |
| <i>Acer buergeranum</i>   | Trident Maple           | E                        | D                              | 6m        | 6m        |
| <i>Acer negundo</i> 'Sensation'                                     | Box Elder Maple         | E                        | D                              | 9m        | 6m        |
| <i>Acer palmatum</i> 'Senkaki'                                      | Coral Bark Maple        | E                        | D                              | 6m        | 5m        |
| <i>Acer rubrum</i> 'October Glory'                                  | Red Maple               | E                        | D                              | 12m       | 9m        |
| <i>Acmena smithii</i> 'Red Head'                                    | Red Head Acmena         | N                        | E                              | 6m        | 2m        |
| <i>Angophora hispida</i>  | Dwarf Apple             | N                        | E                              | 7m        | 5m        |
| <i>Brachychiton populneus</i> x <i>acerifolius</i> 'Jerilderie Red' | Jerilderie Red          | N                        |                                | 8m        | 5m        |
| <i>Brachychiton populneus</i>                                       | Kurrajong               | N*                       | E                              | 12m       | 6m        |
| <i>Brachychiton populneus</i> 'Bella Pink'                          | Bella Pink              | N                        | E                              | 9m        | 4m        |
| <i>Brachychiton rupestris</i>                                       | Bottle Tree             | N                        | E                              | 12m       | 7m        |
| <i>Buckinghamia celsissima</i>                                      | Ivory Curl Flower       | N                        | E                              | 7m        | 5m        |
| <i>Calodendron capense</i>  | Cape Chestnut           | E                        | E                              | 10m       | 8m        |
| <i>Cercis canadensis</i> 'Forest Pansy'                             | Canadian Redbud         | E                        | D                              | 5m        | 5m        |
| <i>Cercis chinensis</i> 'Avondale'                                  | Chinese Redbud          | E                        | D                              | 3m        | 2m        |
| <i>Ceretopetalum gummiferum</i>                                     | NSW Xmas Bush           | N                        | E                              | 5m        | 3m        |
| <i>Corymbia citriodora</i> 'Scentuous'                              | Lemon Scented Gum       | N                        | E                              | 7m        | 4m        |
| <i>Corymbia ficifolia</i> cvs                                       | Dwarf grafted varieties | N                        | E                              | 5m        | 4m        |
| <i>Cupaniopsis anarcardiodes</i>                                    | Tuckeroo                | N                        | E                              | 8m        | 6m        |
| <i>Elaeocarpus eumundii</i>   | Smooth-leaved Quandong  | N                        | E                              | 7m        | 4m        |
| <i>Elaeocarpus reticulatus</i>                                      | Blue Berry Ash          | N                        | E                              | 8m        | 4m        |
| <i>Fraxinus griffithii</i>  | Evergreen Ash           | E                        | E                              | 7m        | 6m        |
| <i>Fraxinus pennsylvanica</i> 'Cimmzam'                             | Cimmaron                | E                        | D                              | 13m       | 8m        |
| <i>Fraxinus pennsylvanica</i> 'Urbanite'                            | Urbanite                | E                        | D                              | 11m       | 8m        |
| <i>Ginkgo biloba</i> 'Princeton'                                    | narrow form Ginko       | E                        | D                              | 11m       | 5m        |

| Botanical Name   | Common Name                          | Origin                     | Type                                 | Height       | Width        |
|--|--------------------------------------|----------------------------|--------------------------------------|--------------|--------------|
|  |                                      | Native (N)<br>Exotic ( E ) | Deciduous<br>(D)<br>Evergreen<br>(E) | In<br>Metres | In<br>Metres |
| <i>Sentry'</i>   |                                      |                            |                                      |              |              |
| <i>Glochidion ferdinandi</i>                           | Cheese Tree                          | N                          | E                                    | 8m           | 6m           |
| <i>Gordonia axillaris</i>                              | Poached Egg<br>Camellia              | E                          | E                                    | 6m           | 5m           |
| <i>Hymenosporum flavum</i>                             | Native Frangipani                    | N                          | E                                    | 8m           | 5m           |
| <i>Lagerstroemia species</i>                           | Crepe Myrtle                         | E                          | D                                    | 7m           | 5m           |
| <i>Lirodendron tulipifera</i>                          | Tulip Tree                           | E                          | D                                    | 12m          | 8m           |
| <i>Lirodendron tulipifera</i><br>'Fastigiatum'         | Fastigate Form of<br>Tulip Tree      | E                          | D                                    | 12m          | 5m           |
| <i>Liquidambar styraciflua</i>                         | Liquidambar                          | E                          | D                                    | 18m          | 12m          |
| <i>Liquidambar styraciflua</i><br>'Oakville Highlight' | Liquidambar<br>Oakville Highlight    | E                          | D                                    | 15m          | 4m           |
| <i>Lophostemon confertus</i>                           | Brush Box                            | N                          | E                                    | 15m          | 10m          |
| <i>Magnolia grandiflora</i><br>'Exmouth'               | Evergreen<br>Magnolia<br>'Exmouth'   | E                          | D & E                                | 8m           | 6m           |
| <i>Magnolia grandiflora</i> 'Kay<br>Parris'            | Dwarf Evergreen<br>perfumed Magnolia | E                          | D & E                                | 4m           | 3m           |
| <i>Magnolia grandiflora</i> 'Little<br>Gem'            | Dwarf Evergreen<br>Magnolia          | E                          | D & E                                | 6m           | 3m           |
| <i>Magnolia grandiflora</i> 'Teddy<br>Bear'            | Dwarf Evergreen<br>Magnolia          | E                          | E                                    | 4m           | 3m           |
| <i>Magnolia x soulangeana</i>                          | Tulip Magnolia                       | E                          | D                                    | 7m           | 4m           |
| <i>Malus floribunda</i>                                | Japenese Crab<br>Apple               | E                          | D                                    | 5m           | 5m           |
| <i>Malus ioensis</i> 'Plena'                           | Crab Apple                           | E                          | D                                    | 6m           | 4m           |
| <i>Malus species</i>                                   | Crab Apple                           | E                          | D                                    | 6m           | 5m           |
| <i>Melaleuca decora</i>                                | White Cloud Tree                     | N                          | E                                    | 6m           | 3m           |
| <i>Melaleuca linariifolia</i>                          | Snow In Summer                       | N                          | E                                    | 7m           | 5m           |
| <i>Melaleuca styphelioides</i>                         | Prickly Paperbark                    | N                          | E                                    | 8m           | 5m           |
| <i>Nyssa sylvatica</i>                                 | Black Tupelo                         | E                          | D                                    | 11m          | 6m           |
| <i>Nyssa sylvatica</i> 'Autumn<br>Cascade'             | Weeping Blackgum                     | E                          | D                                    | 4m           | 3m           |
| <i>Parrotia persica</i>                                | Persian Witch<br>Hazel               | E                          | D                                    | 7m           | 5m           |
| <i>Pistacia chinensis</i>                              | Pistacia Nut Tree                    | E                          | D                                    | 8m           | 6m           |
| <i>Prunus cerasifera</i> 'Oakville<br>Crimson Spire'   | Flowering Plum                       | E                          | D                                    | 6m           | 2m           |
| <i>Prunus cerasifera</i> 'nigra'                       | Flowering Plum                       | E                          | D                                    | 5m           | 4m           |
| <i>Prunus x blireana</i>                               | Purple-leafed Plum                   | E                          | D                                    | 4m           | 4m           |
| <i>Prunus species</i>                                  | Flowering Plum                       | E                          | D                                    | 6m           | 4m           |
| <i>Pyrus betulaefolia</i><br>'Southworth Dancer'       | Flowering Pear                       | E                          | D                                    | 7m           | 4m           |
| <i>Pyrus calleryana</i> 'Aristocrat'                   | Flowering Pear                       | E                          | D                                    | 11m          | 7m           |
| <i>Pyrus calleryana</i> 'Bradford'                     | Bradford Pear                        | E                          | D                                    | 12m          | 9m           |

| Botanical Name                               | Common Name                   | Origin                    | Type                                 | Height       | Width        |
|--|-------------------------------|---------------------------|--------------------------------------|--------------|--------------|
|  |                               | Native (N)<br>Exotic ( E) | Deciduous<br>(D)<br>Evergreen<br>(E) | In<br>Metres | In<br>Metres |
| <i>Pyrus calleryana</i> 'Capital'            | Flowering Pear                | E                         | D                                    | 11m          | 3m           |
| <i>Pyrus calleryana</i> 'Chanticleer'        | Flowering Pear                | E                         | D                                    | 11m          | 6m           |
| <i>Pyrus calleryana</i> 'Edgedell'           | Edgedell Pear                 | E                         | D                                    | 8m           | 6m           |
| <i>Quercus palustris</i>                     | Pin Oak                       | E                         | D                                    | 15m          | 10m          |
| <i>Quercus palustris</i> 'Pringreen'         | Narrow Green Pillar           | E                         | D                                    | 14m          | 3m           |
| <i>Quercus robur</i>                         | English Oak                   | E                         | D                                    | 11m          | 11m          |
| <i>Quercus robur</i> 'Fastigiata'            | Fastigate Form of English Oak | E                         | D                                    | 13m          | 3m           |
| <i>Syzygium australe</i> 'Pinnacle'          | Narrow tall Syzygium          | N                         | E                                    | 8m           | 6m           |
| <i>Syzygium paniculatum</i>                  | Brush Cherry                  | N                         | E                                    | 8m           | 6m           |
| <i>Syzygium smithii</i> 'Sublime'            | Lilly Pilly                   | N                         | E                                    | 5m           | 3m           |
| <i>Tristanopsis laurina</i>                  | Water Gum                     | N                         | E                                    | 9m           | 7m           |
| <i>Tristanopsis laurina</i> 'Luscious'       | Water Gum                     | N                         | E                                    | 9m           | 7m           |
| <i>Ulmus americana</i> 'Princeton'           | Princeton Elm                 | E                         | D                                    | 15m          | 10m          |
| <i>Ulmus glabra</i> 'Lutescens'              | Golden Elm                    | E                         | D                                    | 10m          | 12m          |
| <i>Waterhousea floribunda</i>                | Weeping Lilly Pilly           | N                         | E                                    | 10m          | 8m           |
| <i>Waterhousea floribunda</i> 'Green Avenue' | Waterhousea 'Green Avenue'    | N                         | E                                    | 10m          | 8m           |
| <i>Zelkova serrata</i>                       | Zelkova                       | E                         | D                                    | 9m           | 7m           |
| <i>Zelkova serrata</i> 'Green Vase'          | Wine Glass tree               | E                         | D                                    | 9m           | 6m           |
| <i>Zelkova serrata</i> 'Mushashino'          | Fastigate form Zelkova        | E                         | D                                    | 10m          | 6m           |
| <i>Zelkova serrata</i> 'Golden Flame'        | Zelkova Golden Flame          | E                         | D                                    | 10m          | 9m           |

## REPLACEMENT PLANTING

**List Objective:** To list trees species for the replacement or infill planting in existing streetscapes to maintain continuity.

**Application:** Council's Public Tree Management Officer has responsibility to assess and determine matters concerning replacement or infill street tree planting. Not all trees listed below will be suitable for every situation.

| Botanical Name                            | Common Name             | Origin                    | Type                                 | Height       | Width        |
|---|-------------------------|---------------------------|--------------------------------------|--------------|--------------|
|   |                         | Native (N)<br>Exotic ( E) | Deciduous<br>(D)<br>Evergreen<br>(E) | In<br>Metres | In<br>Metres |
| <i>Acer buergerianum</i>                  | Trident Maple           | E                         | D                                    | 6m           | 6m           |
| <i>Angophora hispida</i>                  | Dwarf Apple             | N                         | E                                    | 7m           | 7m           |
| <i>Backhousia citriodora</i>              | Lemon-scented Myrtle    | N                         | E                                    | 6m           | 4m           |
| <i>Backhousia myrtifolia</i>              | Cinnamon Myrtle         | N*                        | E                                    | 5m           | 2m           |
| <i>Buckinghamia celsissima</i>            | Ivory Curl Flower       | N                         | E                                    | 7m           | 5m           |
| <i>Callistemon salignus</i>               | White Bottlebrush       | N*                        | E                                    | 9m           | 5m           |
| <i>Callistemon viminalis</i>              | Weeping Bottlebrush     | N                         | E                                    | 8m           | 5m           |
| <i>Calodendron capense</i>                | Cape Chestnut           | E                         | E                                    | 10m          | 8m           |
| <i>Corymbia ficifolia</i>                 | Dwarf grafted varieties | N                         | E                                    | 5m           | 4m           |
| <i>Corymbia maculata</i>                  | Spotted Gum             | N*                        | E                                    | 20m          | 15m          |
| <i>Corymbia citriodora</i>                | Lemon-scented Gum       | N                         | E                                    | 20m          | 18m          |
| <i>Corymbia citriodora</i><br>'Scentuous' | Lemon-scented Gum       | N                         | E                                    | 7m           | 4m           |
| <i>Cupaniopsis anarcardioides</i>         | Tuckeroo                | N                         | E                                    | 8m           | 6m           |
| <i>Dais cotinifolia</i>                   | PomPom Tree             | E                         | E                                    | 4m           | 4m           |
| <i>Elaeocarpus eumundii</i>               | Smoth-leaved Quandong   | N                         | E                                    | 7m           | 4m           |
| <i>Elaeocarpus reticulatus</i>            | Blue Berry Ash          | N                         | E                                    | 8m           | 4m           |
| <i>Flindersia australis</i>               | Australian Teak         | N                         | E                                    | 20m          | 18m          |
| <i>Fraxinus griffithii</i>                | Flowering Ash           | E                         | E                                    | 7m           | 6m           |
| <i>Gordonia axillaris</i>                 | Fried Egg Plant         | E                         | E                                    | 6m           | 5m           |
| <i>Harpullia pendula</i>                  | Tulipwood               | N                         | E                                    | 9m           | 5m           |
| <i>Hymenosporum flavum</i>                | Native Frangipani       | N                         | E                                    | 8m           | 5m           |
| <i>Jacaranda mimosifolia</i>              | Jacaranda               | E                         | D                                    | 12m          | 10m          |
| <i>Lagerstroemia species</i>              | Crepe Myrtle            | E                         | D                                    | 7m           | 5m           |
| <i>Liquidambar styraciflua</i>            | Liquid Amber            | E                         | D                                    | 15m          | 12m          |
| <i>Lirodendron tulipefera</i>             | Tulip Tree              | E                         | D                                    | 12m          | 5m           |

| Botanical Name                                    | Common Name                                | Origin                    | Type                           | Height    | Width     |
|---|--|---------------------------|--------------------------------|-----------|-----------|
|   |  | Native (N)<br>Exotic ( E) | Deciduous (D)<br>Evergreen (E) | In Metres | In Metres |
| <i>Lophostemon confertus</i>                      | Brush Box                                  | <b>N</b>                  | <b>E</b>                       | 15m       | 12m       |
| <i>Magnolia grandiflora</i><br><i>Exmouth</i>     | Magnolia<br>Exmouth                        | <b>E</b>                  | <b>D &amp; E</b>               | 8m        | 6m        |
| <i>Malus Species</i>                              | Flowering<br>Ornamental Fruit<br>Varieties | <b>E</b>                  | <b>D</b>                       | 6m        | 5m        |
| <i>Nyssa sylvatica</i>                            | Black Tupelo                               | <b>E</b>                  | <b>D</b>                       | 11m       | 6m        |
| <i>Pistacia chinensis</i>                         | Chinese Pistachio                          | <b>E</b>                  | <b>D</b>                       | 8m        | 6m        |
| <i>Platanus orientalis 'insularis'</i>            | Autumn Glory<br>Plane                      | <b>E</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Platanus orientalis 'digitata'</i>             | Cut Leaf Plane<br>Tree                     | <b>E</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Populus alba</i>                               | Grey Poplar                                | <b>E</b>                  | <b>D</b>                       | 15m       | 8m        |
| <i>Populus nigra 'Italica'</i>                    | Fastigate<br>Lombardy Poplar               | <b>E</b>                  | <b>D</b>                       | 20m       | 4m        |
| <i>Prunus Species</i>                             | Flowering<br>Ornamental<br>Varieties       | <b>E</b>                  | <b>D</b>                       | 6m        | 4m        |
| <i>Pyrus nivalis</i>                              | Snow Pear                                  | <b>E</b>                  | <b>D</b>                       | 8m        | 6m        |
| <i>Pyrus calleryanan cvs</i>                      | Flowering<br>Ornamental<br>Varieties       | <b>E</b>                  | <b>D</b>                       | 12m       | 9m        |
| <i>Pyrus ussuriensis</i>                          | Manchurian Pear                            | <b>E</b>                  | <b>D</b>                       | 9m        | 6m        |
| <i>Quercus palustris</i>                          | Pin Oak                                    | <b>E</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Quercus palustris</i><br><i>'Pringreen'</i>    | Narrow Green<br>Pillar                     | <b>E</b>                  | <b>D</b>                       | 14m       | 3m        |
| <i>Sapium sebiferum</i>                           | Chinese<br>Tallowwood                      | <b>E</b>                  | <b>D</b>                       | 8m        | 8m        |
| <i>Syzygium paniculatum</i>                       | Bush Cherry                                | <b>N</b>                  | <b>E</b>                       | 8m        | 6         |
| <i>Syzygium smithii</i>                           | Lilly Pilly                                | <b>N</b>                  | <b>E</b>                       | 10m       | 8m        |
| <i>Tilia cordata</i>                              | Small-Leaved<br>Lime                       | <b>E</b>                  | <b>D</b>                       | 12m       | 8m        |
| <i>Tristaniopsis laurina</i>                      | Water Gum                                  | <b>N</b>                  | <b>E</b>                       | 9m        | 7m        |
| <i>Tristaniopsis laurina</i><br><i>'Luscious'</i> | Water Gum                                  | <b>N</b>                  | <b>E</b>                       | 9m        | 7m        |
| <i>Ulmus americana</i><br><i>'Princeton'</i>      | Princeton Elm                              | <b>E</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Ulmus glabra 'lutescens'</i>                   | Golden Elm                                 | <b>E</b>                  | <b>D</b>                       | 10m       | 12m       |
| <i>Ulmus parvifolia</i>                           | Chinese Elm                                | <b>E</b>                  | <b>D</b>                       | 12m       | 10m       |
| <i>Waterhousea floribunda</i>                     | Weeping Lilly<br>Pilly                     | <b>N</b>                  | <b>E</b>                       | 10m       | 8m        |
| <i>Zelkova serrata</i>                            | Zelkova                                    | <b>E</b>                  | <b>D</b>                       | 10m       | 4m        |

\* Found in Cumberland Plain Woodland



## OPEN SPACE PLANTING

**List Objective:** To provide a broad palate of large and unique trees that have an association with Camden's natural, cultural and commemorative history.

**Application:** The trees listed under open space are generally suitable to large unrestricted sites where large trees can grow as either single specimen trees or in groups to establish urban forests.

| Botanical Name                  | Common Name                  | Origin                    | Type                                 | Height       | Width        |
|---------------------------------|------------------------------|---------------------------|--------------------------------------|--------------|--------------|
|                                 |                              | Native (N)<br>Exotic ( E) | Deciduous<br>(D)<br>Evergreen<br>(E) | In<br>Metres | In<br>Metres |
| <i>Agathis robusta</i>          | Kauri Pine                   | N                         | E                                    | 18m          | 12m          |
| <i>Angophora costata</i>        | Sydney Red Gum               | N                         | E                                    | 15m          | 12m          |
| <i>Angophora floribunda</i>     | Rough Barked<br>Apple        | N*                        | E                                    | 18m          | 15m          |
| <i>Angophora subvelutina</i>    | Broad Leaf Apple             | N*                        | E                                    | 18m          | 14m          |
| <i>Araucaria araucana</i>       | Monkey Puzzle<br>Tree        | N                         | E                                    | 20m          | 15m          |
| <i>Araucaria bidwilli</i>       | Bunya Bunya<br>Pine          | N                         | E                                    | 30m          | 15m          |
| <i>Araucaria cunninghamii</i>   | Hoop Pine                    | N                         | E                                    | 25m          | 15m          |
| <i>Brachychiton acerifolius</i> | Illawarra Flame<br>Tree      | N                         | D                                    | 15m          | 10m          |
| <i>Brachychiton discolor</i>    | Lacebark<br>Kurragong        | N                         | E                                    | 15m          | 10m          |
| <i>Caloedendron capense</i>     | Cape Chestnut                | E                         | E                                    | 10m          | 10m          |
| <i>Carya illinoensis</i>        | Pecan                        | E                         | D                                    | 25m          | 18m          |
| <i>Cedrus atlantica</i>         | Atlas Cedar                  | E                         | E                                    | 18m          | 12m          |
| <i>Cedrus deodara</i>           | Deodar Cedar                 | E                         | E                                    | 25m          | 18m          |
| <i>Corymbia citriodora</i>      | Lemon-Scented<br>Gum         | N                         | E                                    | 20m          | 18m          |
| <i>Corymbia ficifolia cvs</i>   | Flower Gum                   | N                         | E                                    | 5m           | 4m           |
| <i>Corymbia maculata</i>        | Spotted Gum                  | N*                        | E                                    | 20m          | 15m          |
| <i>Cupressus funebris</i>       | Funeral Cypress              | E                         | E                                    | 15m          | 8m           |
| <i>Eucalyptus amplifolia</i>    | Cabbage Gum                  | N*                        | E                                    | 25m          | 15m          |
| <i>Eucalyptus bauerana</i>      | Blue Box                     | N*                        | E                                    | 20m          | 10m          |
| <i>Eucalyptus benthamii</i>     | Camden White<br>Gum          | N*                        | E                                    | 25m          | 12m          |
| <i>Eucalyptus crebra</i>        | Narrow Leaf Red<br>Iron Bark | N*                        | E                                    | 18m          | 12m          |
| <i>Eucalyptus fibrosa</i>       | Broad Leaf Red<br>Iron Bark  | N                         | E                                    | 18m          | 12m          |

| Botanical Name                  | Common Name                    | Origin                    | Type                           | Height    | Width     |
|---------------------------------|--------------------------------|---------------------------|--------------------------------|-----------|-----------|
|                                 |                                | Native (N)<br>Exotic ( E) | Deciduous (D)<br>Evergreen (E) | In Metres | In Metres |
| <i>Eucalyptus microcorys</i>    | Tallow Wood                    | <b>N</b>                  | <b>E</b>                       | 25m       | 15m       |
| <i>Eucalyptus sideroxylon</i>   | Red Ironbark                   | <b>N*</b>                 | <b>E</b>                       | 15m       | 12m       |
| <i>Eucalyptus viminalis</i>     | Ribbon Gum                     | <b>N*</b>                 | <b>E</b>                       | 30m       | 18m       |
| <i>Ficus macrophylla</i>        | Moreton Bay Fig                | <b>N</b>                  | <b>E</b>                       | 20m       | 25m       |
| <i>Ficus rubiginosa</i>         | Port Jackson Fig               | <b>N</b>                  | <b>E</b>                       | 18m       | 15m       |
| <i>Flindersia australis</i>     | Australian Teak                | <b>N</b>                  | <b>E</b>                       | 20m       | 18m       |
| <i>Ginkgo biloba</i>            | Maidenhair Tree                | <b>E</b>                  | <b>D</b>                       | 11m       | 5m        |
| <i>Glochidion ferdinandi</i>    | Cheese Tree                    | <b>N</b>                  | <b>E</b>                       | 7m        | 5m        |
| <i>Jacaranda mimosifolia</i>    | Jacaranda                      | <b>E</b>                  | <b>D</b>                       | 12m       | 10m       |
| <i>Jubaea chilensis</i>         | Chilean Wine Palm              | <b>E</b>                  | <b>E</b>                       | 15m       | 8m        |
| <i>Liriodendron tulipifera</i>  | Tulip Tree                     | <b>E</b>                  | <b>D</b>                       | 12m       | 5m        |
| <i>Livistona australis</i>      | Cabbage Palm                   | <b>N</b>                  | <b>E</b>                       | 15m       | 8m        |
| <i>Macadamia integrifolia</i>   | Macadamia Nut Tree             | <b>N</b>                  | <b>E</b>                       | 10m       | 6m        |
| <i>Magnolia denudata</i>        | Yulan Magnolia                 | <b>E</b>                  | <b>D</b>                       | 7m        | 8m        |
| <i>Magnolia grandiflora</i>     | Bull Bay Tree                  | <b>E</b>                  | <b>E</b>                       | 15m       | 12m       |
| <i>Malus Species</i>            | Flowering Ornamental Varieties | <b>E</b>                  | <b>D</b>                       | 4m        | 3m        |
| <i>Phoenix canariensis</i>      | Canary Island Date Palm        | <b>E</b>                  | <b>E</b>                       | 12m       | 8m        |
| <i>Pinus pinea</i>              | Italian Stone Pine             | <b>E</b>                  | <b>E</b>                       | 15m       | 20m       |
| <i>Podocarpus elatus</i>        | Illawarra Plum                 | <b>N</b>                  | <b>E</b>                       | 15m       | 12m       |
| <i>Quercus coccinea</i>         | Scarlet Oak                    | <b>E</b>                  | <b>D</b>                       | 12m       | 8m        |
| <i>Quercus palustris</i>        | Pin Oak                        | <b>E</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Quercus robur</i>            | English Oak                    | <b>E</b>                  | <b>D</b>                       | 11m       | 11m       |
| <i>Syzygium luehmannii</i>      | Small Leaf Water Gum           | <b>N</b>                  | <b>E</b>                       | 8m        | 6m        |
| <i>Toona ciliata</i>            | Red Cedar                      | <b>N</b>                  | <b>D</b>                       | 15m       | 10m       |
| <i>Ulmus glabra 'Lutescens'</i> | Golden Elm                     | <b>E</b>                  | <b>D</b>                       | 10m       | 12m       |
| <i>Ulmus parvifolia</i>         | Chinese Elm                    | <b>E</b>                  | <b>D</b>                       | 12m       | 10m       |
| <i>Washington robusta</i>       | Mexican Fan Palm               | <b>E</b>                  | <b>E</b>                       | 18m       | 8m        |
| <i>Zelkova serrata</i>          | Zelkova                        | <b>E</b>                  | <b>D</b>                       | 12m       | 10m       |

\* Found in Cumberland Plain Woodland

## TREES SUITABLE UNDER POWERLINES

**List Objective:** To provide a list of trees that can successfully grow under power lines within acceptable utility clearance.

**Application:** Council's Public Tree Management Officer has responsibility to assess and determine matters concerning tree planting under power lines.

| Botanical Name                           | Common Name                          | Origin                   | Type                           | Height    | Width     |
|--|--------------------------------------|--------------------------|--------------------------------|-----------|-----------|
|  |                                      | Native (N)<br>Exotic (E) | Deciduous (D)<br>Evergreen (E) | In Metres | In Metres |
| <i>Acer palmatum 'Senkaki'</i>           | Coral Bark Maple                     | E                        | D                              | 6m        | 5m        |
| <i>Acmena smithii 'Red Head'</i>         | Red Head Acmena                      | N                        | E                              | 6m        | 2m        |
| <i>Angophora hispida</i>                 | Dwarf Apple                          | N                        | E                              | 7m        | 5m        |
| <i>Buckinghamia celsissima</i>           | Ivory Curl Flower                    | N                        | E                              | 7m        | 5m        |
| <i>Cercis canadensis 'Forest Pansy'</i>  | Canadian Redbud                      | E                        | D                              | 5m        | 5m        |
| <i>Ceretopetalum gummiferum</i>          | NSW Xmas Bush                        | N                        | E                              | 5m        | 3m        |
| <i>Corymbia ficifolia</i>                | Dwarf grafted varieties              | N                        | E                              | 5m        | 4m        |
| <i>Dais cotinifolia</i>                  | PomPom Tree                          | E                        | E                              | 4m        | 4m        |
| <i>Elaeocarpus reticulatus</i>           | Blue Berry Ash                       | N                        | E                              | 8m        | 4m        |
| <i>Fraxinus griffithii</i>               | Evergreen Ash                        | E                        | E                              | 7m        | 6m        |
| <i>Gordonia axillaris</i>                | Poached Egg Camellia                 | E                        | E                              | 6m        | 5m        |
| <i>Lagerstroemia species</i>             | Crepe Myrtle                         | E                        | D                              | 7m        | 5m        |
| <i>Laurus nobilis</i>                    | Bay Laurel                           | E                        | E                              | 4m        | 3m        |
| <i>Magnolia grandiflora 'Kay Parris'</i> | Dwarf Evergreen perfumed Magnolia    | E                        | D & E                          | 4m        | 3m        |
| <i>Magnolia grandiflora 'Little Gem'</i> | Dwarf Evergreen Magnolia             | E                        | D & E                          | 6m        | 3m        |
| <i>Malus Species</i>                     | Flowering Ornamental Fruit Varieties | E                        | D                              | 6m        | 5m        |
| <i>Melaleuca decora</i>                  | White Cloud Tree                     | N                        | E                              | 6m        | 3m        |
| <i>Melaleuca linarifolia</i>             | Snow In Summer                       | N                        | E                              | 7m        | 5m        |
| <i>Melaleuca styphelioides</i>           | Prickly Paperbark                    | N                        | E                              | 8m        | 5m        |
| <i>Nyssa sylvatica 'Autumn Cascade'</i>  | Weeping Blackgum                     | E                        | D                              | 4m        | 3m        |
| <i>Prunus species</i>                    | Flowering Ornamental Fruit Varieties | E                        | D                              | 6m        | 4m        |

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| Botanical Name                                   | Common Name             | Origin                    | Type                                 | Height       | Width        |
|--|-------------------------|---------------------------|--------------------------------------|--------------|--------------|
|  |                         | Native (N)<br>Exotic ( E) | Deciduous<br>(D)<br>Evergreen<br>(E) | In<br>Metres | In<br>Metres |
| <i>Pyrus betulaefolia</i><br>'Southworth Dancer' | Flowering Pear          | <b>E</b>                  | <b>D</b>                             | 7m           | 4m           |
| <i>Pyrus calleryana</i> 'Edgedell'               | Flowering Pear          | <b>E</b>                  | <b>D</b>                             | 8m           | 6m           |
| <i>Syzygium australe</i> 'Pinnacle'              | Narrow tall<br>Syzygium | <b>N</b>                  | <b>E</b>                             | 8m           | 6m           |

## LANDSCAPE SPECIES OTHER THAN TREES

**List Objective:** To provide a general list of Shrubs and Ground Covers and Climbers that are suited to a range of Landscape applications within Camden.

**Application:** Unrestricted. Specialist advice is required when making selection. Where a plant name refers to “varieties” or “Spp” this means there are many cultivars or special.

| Botanical Name  | Common Name              |
|---|--------------------------|
| <b>Hedges</b>   |                          |
| <i>Buxus varieties</i>  | Buxus                    |
| <i>Brunfelsia varieties</i>   | Yesterday Today Tomorrow |
| <i>Camellia sasanqua varieties</i>                                    | Camellia                 |
| <i>Loropetalum chinensis varieties</i>                                | Chinese fringe flower    |
| <i>Luculia grandiflora</i>  | White Luculia            |
| <i>Luculia pinceana</i>   | Pink Spice               |
| <i>Michelia figo</i>  | Port Wine Magnolia       |
| <i>Michelia yunnanensis</i>   | Scented Pearl Magnolia   |
| <i>Murraya varieties</i>  | Orange Jasmine           |
| <i>Nandina varieties</i>  | Sacred Bamboo            |
| <i>Photonia x fraseri 'Little Red Robin'</i>                          | Photinia                 |
| <i>Viburnum odoratissimum</i>   | Sweet Viburnum           |
| <b>Shrubs</b>   |                          |
| <i>Acmena varieties</i>   | Lilly Pilly              |
| <i>Banksia spp</i>  | Banksia                  |
| <i>Brunfelsia - grandifolia/maliformis/pauciflora/dwarf varieties</i> | Yesterday Today Tomorrow |
| <i>Callistemon spp</i>  | Bottle Brush             |
| <i>Cordyline fruticosa</i>  | Cordyline                |
| <i>Crinum pedunculatum</i>  | Crinum Lilly             |
| <i>Dodonaea varieties</i>   | Hopbush                  |
| <i>Doryanthes excelsa</i>   | Gynea lily               |
| <i>Eremophila varieties</i>   | Emu Bush                 |
| <i>Erica varieties</i>  | Winter heath             |
| <i>Corymbia ficifolia cvs.</i>  | Flower Gum               |
| <i>Gordonia axillaris</i>   | Fried Egg Plant          |
| <i>Grevillea shrubs – eg 'Spinebill'</i>                              | Grevillea                |
| <i>Ixora chinensis</i>  | Prince of Orange         |
| <i>Indigofera australis</i>   | Australian Indigo        |
| <i>Leptospermum species</i>   | Tea Tree                 |
| <i>Loropetalum chinensis</i>  | Chinese fringe flower    |

| Botanical Name  | Common Name             |
|---|-------------------------|
| <i>Luculia grandaflora</i>  | White Luculia           |
| <i>Luculia pinceana</i>   | Pink Spice              |
| <i>Magnolia grandifolia</i> 'Little Gem'                              | Magnolia                |
| <i>Magnolia stellata</i>  | Star Magnolia           |
| <i>Melaleuca</i> 'Revolution Gold'                                    | Revolution Gold         |
| <i>Michelia figo</i>  | Port Wine Magnolia      |
| <i>Michelia Yunnanensis</i>   | Scented Pearl Magnolia  |
| <i>Myoporum montanum</i>  | Western Boobialla       |
| <i>Photonia</i> 'Red Robin'   | Photonia                |
| <i>Pieris japonica</i>  | Japanese pieris         |
| <i>Viburnum varieties, eg odoratissimum</i>                           | Sweet Viburnun          |
| <i>Syzygium spp.</i>  | Lilliy Pilly            |
|   |                         |
| <b>Climbers</b>   |                         |
| <i>Clematis aristate</i>  | Old Man's Beard         |
| <i>Gelsemium sempervirens</i>   | Carolina Jasmine        |
| <i>Jasminum spp.</i>  | Jasmine                 |
| <i>Hardenbergia violacea</i>  | Native Sarsoparilla     |
| <i>Kennedia rubicunda</i>   | Dusky Coral Pea         |
| <i>Mandevilla spp</i>   | Mandevilla              |
| <i>Pandorea jasminoides</i>   | Bower of Beauty         |
| <i>Trachelospermum jasminoides</i>                                    | Star Jasmine            |
|   |                         |
| <b>Ground Covers</b>  |                         |
| <i>Acacia cognate eg 'Mini Cog' &amp; 'Limelight'</i>                 | Wattle                  |
| <i>Anigozanthos "Bush Gems - varieties, eg Bush Haze, Bush Ranger</i> | Kangaroo Paw            |
| <i>Dianella caerulea</i>  | Blue Flax Lily          |
| <i>Dichondra repens</i>   | Kidney Grass            |
| <i>Convolvulus mauritanicus</i>                                       | Ground Blue-convolvulus |
| <i>Goodenia hederacea</i>   | Goodenia                |
| <i>Hardenbergia violacea</i>  | Native Sarsoparilla     |
| <i>Kniphofia "Maid of Orleans"</i>                                    | Torch Flower            |
| <i>Melaleuca pentagona 'Little Penta'</i>                             | Honey Myrtle            |
| <i>Myoporum parvifolium</i>   | Creeping boobialla      |
| <i>Plectranthus parviflorus</i>                                       | Cockspur Flower         |
| <i>Rhodanthe anthemoides</i>  | Rhodanthe               |
| <i>Scaevola aemula</i>  | Fan-flower              |
| <i>Sedum sempervirens</i>   | Hens and Chicks         |
|   |                         |
| <b>Herbs</b>  |                         |
| <i>Dianella spp</i>   | Flax Lilly              |

| Botanical Name   | Common Name     |
|--|-----------------|
| <i>Eremophila debilis</i> (syn. <i>Myoporum debile</i> )               | Myoporum        |
| <i>Lomandra</i> spp (eg <i>Tanika</i> or <i>Nyalla</i> )               | Basket Grass    |
| <i>Plectranthus parvifolius</i>  | Cockspur Flower |
| <i>Pennisetum alopecureoides</i>                                       | Fountain Grass  |
| <i>Scaevola albida</i>   | Fan-flower      |
|  |                 |
| <b>Grasses</b>   |                 |
| <i>Carex appressa</i>  | Tall Sedge      |
| <i>Danthonia racemosa</i>  | Wallaby Grass   |
| <i>Dianella</i> varieties <i>Imperata cylindrical</i>                  | Flax Lilly      |
| <i>Lomandra</i> varieties incl ' <i>Tanika</i> ' ' <i>Nyalla</i> ' etc | Basket Grass    |
| <i>Sorghum leiocladum</i>  | Wild Sorghum    |
| <i>Themeda australis</i>   | Kangaroo Grass  |

## SALT TOLERANT TREES, SHRUBS AND GROUND COVERS

**List Objective:** To provide a list of trees, shrubs and groundcovers with known performance in saline conditions

**Application:** Specialist advice is required when determining site salinity and which of species are suitable.

| Botanical Name                   | Common Name            |
|----------------------------------|------------------------|
| <b>Trees</b>                     |                        |
| <i>Angophora subvelutina</i>     | Broad Leaf Apple       |
| <i>Cupaniopsis anarcardiodes</i> | Tuckeroo               |
| <i>Eucalyptus amplifolia</i>     | Cabbage Gum            |
| <i>Eucalyptus fibrosa</i>        | Broad Leaf Ironbark    |
| <i>Eucalyptus tereticornis</i>   | Forest Red Gum         |
| <i>Eucalyptus moluccana</i>      | Grey Box               |
| <i>Casuarina glauca</i>          | Swamp Oak              |
| <i>Casuarina cunninghamiana</i>  | River Oak              |
| <i>Melaleuca decora</i>          | White Cloud Tree       |
| <i>Melaleuca linariifolia</i>    | Snow storm in Summer   |
| <i>Melaleuca styphelioides</i>   | Prickly leaf Paperbark |
| <i>Metrosideros excelsa</i>      | NZ Christmas Tree      |
| <b>Shrubs</b>                    |                        |
| <i>Banksia ericifolia</i>        | Heath Banksia          |
| <i>Banksia speciosa</i>          | Showy Banksia          |
| <i>Banksia spinulosa</i>         | Hairpin Banksia        |
| <i>Indigofera australis</i>      | Australian Indigo      |
| <i>Melaleuca thymifolia</i>      | Thyme Honey Myrtle     |
| <i>Melaleuca nodosa</i>          | Ball Honey Myrtle      |
| <i>Myoporum floribundum</i>      | Boobiella              |
| <b>Ground Covers</b>             |                        |
| <i>Hardenbergia violacea</i>     | Native Sarsoparilla    |
| <i>Myoporum parvifolium</i>      | Creeping Boobiala      |
| <i>Cynodon dactylon</i>          | Bermuda Grass          |



**NOT ACCEPTABLE SPECIES FOR USE ON PUBLIC LAND AND NOT RECOMMENDED FOR USE ON PRIVATE LAND**

**List Objective:** To provide a list of trees that Council will not use or approve on Public land and does not recommend to be used on private land. This list excludes established species.

**Application:** Nil on Public Land, not recommended on Private Land. Council will not approve the planting of tree species identified as not being suitable.

| Botanical Name                     | Common Name         |
|------------------------------------|---------------------|
| <i>Cinnamomum camphora</i>         | Camphor Laurel      |
| <i>Gleditsia triacanthos</i>       | Honey locust        |
| <i>Lantana camara</i>              | Lantana             |
| <i>Ligustrum lucidum</i>           | Broad Leaved Privet |
| <i>Ligustrum sinense</i>           | Small Leaved Privet |
| <i>Olea Europaea var. Africana</i> | Wild Olive          |
| <i>Robinia pseudoacacia</i>        | Robinia             |
| <i>Syagrus rhomanzofianum</i>      | Cocos Palm          |



# **APPENDIX B**

## **History of Camden Trees and Landscape**

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## BACKGROUND TO THE LISTS

### 1. The Original Landscape

Plant communities grow in response to soil, topography and climatic conditions. The Camden local government area extends over an area of 206 square kilometres within the central southern part of the Cumberland Plain. Bringelly Shales dominate the area, forming landscape of low undulating hills with steeper hillier sections to the north of Cobbitty and along the southern boundary to Wollondilly Shire. These areas are interspersed with extensive alluvial plains along the Nepean River and its tributaries, and narrower flats along the upper tributaries of South Creek. Sandy Tertiary alluvials also occur in the Elderslie area. The Nepean River, the major drainage catchment of the Cumberland Plain, runs through the south-western corner of the LGA and continues to delineate parts of the western and southern boundary with Wollondilly Shire.

#### 1.1. Cumberland Plain Woodland

This once extensive Cumberland Plain Woodland was originally the major vegetation type of this area. It was characterised by the dominant **Grey Box** (*Eucalyptus moluccana*), **Forest Red Gum** (*Eucalyptus tereticornis*), **Narrow-leaved Ironbark** (*Eucalyptus crebra*), **Broad-leaved Apple** (*Angophora subvelutina*), **Thin-leaved Stringybark** (*Eucalyptus eugenoides*) and **Cabbage Gum** (*Eucalyptus amplifolia*). The **Narrow-leaved Ironbark** favoured the drier hills and terraces and occurred in almost pure stands in some locations (eg South Camden area), while Cabbage Gum dominated the periodically waterlogged soils of the floodplains. The **Kurrajong** (*Brachychiton populneum*) and **Port Jackson Pine** (*Callitris rhomboidea*) were important components, particularly on the drier hill tops of this area. The only known occurrence of the **Spotted Gum** (*Eucalyptus maculata*) in Camden is an isolated mature stand on the steeper, hilly country of 'Roseneath', north of Cobbitty.

The fertile soils of the Bringelly Shales supported a rich natural pasture dominated by **Kangaroo Grass** (*Themeda australis*) which was quickly exploited by the new European settlers. Patches of understorey shrubs included **Blackthorn** (*Bursaria spinosa*), **Native Indigo** (*Indigofera australis*), (*Myoporum montanum*) and (*Olearia viscidula*).

#### 1.2. Tall River flat Forests and Swamps

A diverse range of Riparian or Tall River flat Forest species would have occurred along the immediate margins of the river and its tributaries, i.e. along the riverbank associated swales, anabranches and the levee banks. This association contained a 25 – 30 metre high, co dominant canopy of **Forest Red Gum** (*Eucalyptus tereticornis*), **Manna Gum** (*Eucalyptus viminalis*), **Blue Box** (*Eucalyptus baueriana*), **River Peppermint** (*Eucalyptus elata*), **Broad-leaved Apple** (*Angophora subvelutina*), **Rough-barked Apple** (*Angophora floribunda*) and **River Oak** (*Casuarina cunninghamiana*). Some of the older trees would certainly have been of massive proportions.

The rare **Camden White Gum** (*Eucalyptus benthamii*), known from the Bent's Basin area to the north, may also have originally occurred in numbers along stretches of the river within

Camden. It was Sir William Macarthur who first brought this distinctive tree to the attention of the eminent Victorian botanist, Ferdinand von Mueller.

Rain forest trees, such as **White Cedar** (*Melia azedarach*) (once known locally as Hawkesbury Cedar), **Brush Kurrajong** (*Commersonia fraseri*) and **Sandpaper Fig** (*Ficus coronata*) also occurred along the riverbanks. The shrub understorey would have contained a mixture of mesic species, with rain forest affinities, such as **Tree Violet** (*Hymenanthera dentata*), **Hairy Calodendron** (*Calodendron tomentosum*) and **Corkwood** (*Duboisia myoporoides*). Vines and creepers such as **Wonga Vine** (*Pandorea pandorana*) and **Tape Vine** (*Stephania japonica*), would have combined with these shrubs to create closed vine thickets in some places. These fertile, moist areas were the first to be cleared for agriculture and very little of this community remains.

Freshwater wetland communities also occurred along the river and its tributary creeks along the floodplains but have now largely been cleared and drained. The wetland communities ranged from large swamps and billabongs of permanent standing water to generally waterlogged areas of periodic inundation. Emergent reedland of (*Elaeocharis sphacelata*) and **Cumbungi** (*Typha orientalis*) typically flanked the shallower waters surrounding these swamps. The reedland was followed by a waterlogged zone of (*Juncus spp.*) dominated rushland and beyond this tall shrubland thickets of **Swamp Oak** (*Casuarina glauca*) and **Prickly Paperbark** (*Melaleuca styphelioides*), which graded into seasonally waterlogged woodland of **Cabbage Gum** (*Eucalyptus amplifolia*).

### 1.3. Vine Scrub (Dry Rain Forest)

Isolated pockets of remnant dry vine scrub, a dry rain forest vegetation type, also may have occurred sporadically in this district, particularly south of Camden in the Razorback Range. Of particular importance to Camden is an area known as the 'Native Vineyard', a small isolated patch of vine scrub north of Cobbitty. The area was first reported by the Parramatta botanist William Woolls in 1867. He recorded a number of rare species which were found nowhere else in the Western Sydney area, including **Native Holly** (*Alchornea ilicifolia*), **Native Cascarilla** (*Croton verreauxii*) and (*Sicyos australis*). These are now believed to be extinct at this site, however a number of species with rain forest affinities still persist, including **Whalebone Tree** (*Streblus brunonianus*), **Broad-leaved Brush Wilga** (*Geijera latifolia*) and **Red Olive Plum** (*Cassine australis*). (Benson & McDougall, 1991). Refer to Listing 'The Native Vineyard'.

Together these vegetation associations would have formed a vast and interrelated ecosystem of immense diversity and character.

## 2. The Impact of European Settlement

### 2.1. The Camden District

Since European settlement in the late 1790's, the Camden district has undergone enormous changes with most of the indigenous vegetation being cleared, fragmented and modified. Grazing of livestock and pasture enrichment has been the primary land use over this period.

Furthermore, timber getting, cultivation and the introduction of exotic plants, the removal of the aboriginal population and subsequent changes in fire regimes, quarrying of coal, sand and soil, road construction and urban expansion have all made an enormous impact on the original natural ecosystem.

The most obvious changes have been the replacement of the original mature communities of vegetation by regrowth woodland, the fragmentation of these relatively immature communities into small and often isolated remnants and the introduction of weed species into these communities (Terry & Morgan, 1991). Local and regional extinction of both plant and animal species has occurred, some of which as recently as the 1960's. The Camden area contains about 250 native species of plants, of which 113 are now considered as vulnerable (Benson & McDougall, 1991). Perhaps the one lasting impression is the pace of change which saw the transformation of this district from a vast unexplored wilderness at the end of the 18<sup>th</sup> century to established rural and urban landscape today.

In spite of all the changes brought upon the pre European landscape, many areas still contain significant vestiges of the original vegetation, albeit in a modified and somewhat fragmented form. These remnants owe their survival to a number of historic factors including the establishment of larger early land grants, the pattern of clearing leases, the proximity to transport corridors, the type of agricultural development, the presence of competitive exotic plants and conservation efforts of the time.

Environmental factors such as poor saline soils in some low lying floodplain areas and the steeper hilly country of the north western sector would have limited the commercial viability of these areas and subsequently reduced the level of clearing and modification. The degree of disturbance and clearing, alterations to drainage, nutrient enrichment, altered fire regimes, location within the sub drainage catchment and the impact of weed introductions have all played a role in determining the quality and viability of these remnant communities.

Community and family interests also played an important role in conserving and protecting significant vegetation, such as Mrs Macarthur-Onslow's interest in protecting the **Narrow-leaved Ironbarks** (*Eucalyptus crebra*) at 'Macarthur Park', Camden. There was also widespread interest in certain local native specimens for ornamental and curiosity value as well as fodder trees in times of drought, such as **Kurrajongs** (*Brachychiton populneum*). Ironically, the Macarthur family also introduced many exotic plants to this area and a number of these have now become major weed species which compete aggressively against native remnant plant communities.

## 2.2. The Nepean River

In 1819, Quoy described the great contrast from Cumberland Plain woodlands to tall river flat forest of the Nepean River:

*...up till then we had met with but poorly watered soil, only a portion of which seemed capable of cultivation, but on either side of the Nepean we saw unfold level country, where the trees were gigantic, and though numerous, growing far enough apart to leave spaces where many grasses grew, forming a magnificent meadow. (Burton, 1992).*

The rich agricultural lands surrounding the Nepean River, its tributaries and associated floodplains were the focus of early development and have received the greatest level of modification and environmental degradation. The first 100 years of the colony was a period of immense agricultural expansion in the wake of the timber getters. Early records indicate that timber was cleared and harvested from the banks of streams and rivers with little regard to bank stability, erosion and siltation. Often land owners pushed cleared timber directly into the rivers to remove it from farmland.

There were few restrictions placed over logging activities, however by 1826, only four years after opening the country westward of the Nepean River, most of the alluvial land had been cleared and was being cultivated. River banks were undermined and collapsing into the river, while felled trees impeded water flow, leading to significant changes to the river channels and siltation. The introduction and spread of exotic weed species further compounded these problems. Water quality was becoming an issue as early as 1844. Nevertheless, environmental change and degradation continued unabated throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries (Recher & Hutchings, 1992).

Remnant pockets of mature tall river flat forest and immature regrowth are still present to varying degrees along the river today, however its future viability is severely threatened by the alteration to the natural flow regime and competition from introduced exotic species. The remnant tall river flat forest in many sections of the river has been reduced to individual mature specimens standing above a dense understorey of exotic and invasive species. The river banks still contain some venerable old specimen trees from the original tall forest, occasionally up to 30 metres in height. The more common species include **Forest Red Gum** (*Eucalyptus tereticornis*), **River Peppermint** (*Eucalyptus elata*), **Broad-leaved Apple** (*Angophora subvelutina*), **Rough-barked Apple** (*Angophora floribunda*) and **River Oak** (*Casuarina cunninghamiana*), the **River Peppermint** (*Eucalyptus elata*) is most commonly found as young regrowth coppices, rather than as single old specimens. The **Manna Gums** (*Eucalyptus viminalis*), with their distinctive white bark and the small rough barked **Blue Box** (*Eucalyptus baueriana*) are generally rare, with a more sporadic distribution than the other listed tree species.

Weed species, which now dominate much of the banks of the Nepean River and its tributaries include **Honey-locust** (*Gleditsia triacanthos*), **Hackberry** (*Celtis occidentalis*), **Broad-leaved Privet** (*Ligustrum lucidum*), **Box Elder** (*Acer negundo*) and **Wild Olive** (*Olea africana*). In the 1830's Sir William Macarthur introduced some of these exotic species as hedge plants to the gardens, paddocks and arboretum at 'Camden Park'. These exotics later become garden escapes, freely colonising the riverbanks of the Nepean River and its tributaries and spreading throughout the district. Although these naturalised exotic plants compete aggressively against native remnant vegetation and prevent regeneration, they now play a vital role in mechanical stabilisation of the riverbanks in many areas. Furthermore, these trees are now a pivotal element in the cultural landscape of Camden and the Nepean River. Their presence in many places is indeed visually significant and evocative of the rural qualities of this district. A balanced and integrated weed management strategy is now needed; one which recognises the values of both remnant indigenous vegetation and the naturalised exotic plants which make up this landscape.

### 3. The Cultural Landscape

#### 3.1. Rural Beginnings and the Development of Camden

The Macarthur name is synonymous with the early development of this district. *'Camden Park'* was originally established on an area of 2000 hectares, granted to John Macarthur in 1805, on the fertile soils adjacent to the Nepean River. Since the 1790's the area had been known as *'the Cowpastures'*, after the Colony's domesticated cattle had strayed from Sydney Cove and were some years later discovered in far greater numbers, here running wild. The richness of the area, which had been indicated by the cattle's preference, had created considerable interest within the Colony. John Macarthur's original grant was later increased to more than 3000 hectares through the acquisition of Walter Davidson's *'Belmont'* and the area known as *'North Camden'*.

A whole new cultural landscape evolved from these beginnings and in the process totally altered the pre existing landscape forever. The colony of New South Wales was entering a new period of consolidation from penal settlement towards a free society. As wealth was created, gardens and estates were increasingly used to signify a new permanence, attempting to emulate the grand gardens of Europe. Although being devoid of an aristocracy or fashion makers and provincial in nature, gardens were developed by borrowing on the traditions of the English Landscape School and European romanticism. Both were well established in Europe at the time New South Wales was founded and provided the main influence for garden design in these early years.

The landscape approach was generally to modify and enhance the standard of life in the colony. The built environment reflected the differences in community origins within the Counties, together with the cultural and artistic differences of London and abroad. These influences were displayed in the elaboration of workmanship, historic details and use of materials. Likewise, the landscape reflected local differences in approach and the fashions which dictate European thinking.

In 1812 a Government order was given, prohibiting anyone from crossing the Nepean River, with the exemption of members of the Macarthur and Davidson family and their servants. This prohibition was aimed at preserving the herd of cattle on *'the Cowpastures'* the order operated for ten years, effectively restricting all other grants to the eastern side of the Nepean River and focusing on the area between Prospect and Camden. The major land grants of *'Macquarie Grove'*, *'Wivenhoe'* (now *'Mater Dei'*), *'Kirkham'* (now *'Camelot'*), *'Denbigh'*, *'Harrington Park'* and *'Nonnorrah'* (later *'Maryland'*) were all taken up between the years of 1812-1815.

By the time of opening of the country westward of the Nepean River in 1822 and the building of the Cowpastures Bridge at Camden in 1826, there was already growing settlements in the vicinity of Narellan and Elderslie, in the form of homesteads and huts, saw pits and loggers' camps, blacksmiths' forges, brickfields, mills, stores and grog shops (Proudfoot, 1990). Experienced agriculturalists and tradesmen were also in high demand from the owners of the various large estates. A rapid expansion of the population followed and many clearing leases were taken up in the Camden area during this period.



In 1836 plans were drawn for the township of Camden, one of the first 'private' towns in the colony. An ordered rectilinear layout, and the regulation hierarchy of streets (Argyle and John Streets are slightly wider) and basic town block dimensions were adopted. The town was to be located on an alluvial ridge, immediately west of the Nepean River on the 'North Camden' section of the Macarthur estate. Following the death of John Macarthur, his sons James and William advocated strongly for the town development and were closely involved in the establishment of many of its public buildings, including St John's Anglican Church and Rectory on the hill and allotments for the Catholic and Presbyterian churches. The population however, grew slowly after this time and there was a major set back to the town's growth in the 1860's as a result of the increasing rust problems in wheat (Proudfoot 1990).

### 3.2. The Landscapes of Colonial Rural Estates

The size and scale of rural estates contrasted with the intensive town centre development. 'Camden Park', the earliest and one of the largest estates in the district, continued to be the focus of agricultural, horticultural and pastoral development in the colony. Consequently, the 'Home Farm (Belgenny Homestead)' on the 'Camden Park' estate retained its importance as a centre in its own right, containing workmen's cottages, stables, blacksmiths, storage barns and maintenance sheds. In addition to the many agricultural and pastoral innovations and experimentation on the estate, Sir William, his brother James and their mother Elizabeth Macarthur had a special interest in horticulture. The 'Camden Park Nursery' was established in the 1830's and its first commercial plant catalogue released in 1843. Francis Ferguson, a former employee of Sir William Macarthur at the 'Camden Park Nursery' also established a further nursery in this district. The 'Ferguson's Australia Nursery', known on the original deeds as the 'Old Nursery' was located about one kilometre west of Camden.

By the mid 19<sup>th</sup> century, large gardens complemented a number of fine estates in the district. During the latter part of the 19<sup>th</sup> century, the romanticism in garden design was fused with the order of French neo classicism, the Italianate School and many other influences. Furthermore, these many competing design influences merged with the broader interest of collecting and borrowing on a diverse range of plants, made more accessible by the growth of the empire and improvements in communication. These new directions created the gardenesque movement which was marked by an eclectic mix of styles and collections of botanic curiosities from around the world.

Significantly, it was the native rain forest trees which captured the greatest interest, providing visual relief from the grey greens of the surrounding Eucalypt dominated woodlands. Following in the wake of the Red Cedar cutters, botanists and seed collectors brought to commercial nurseries, a wide range of lush densely foliated trees from the native rain forests of the Illawarra and further a field along the New South Wales north coast and Queensland coastal areas.

Commonly cultivated rain forest trees included the **Silky Oak** (*Grevillea robusta*), **Illawarra Flame Tree** (*Brachychiton acerifolia*), **White Cedar** (*Melia azedarach*), **Blackbean** (*Castanospermum australe*) and the **Firewheel Tree** (*Stenocarpus sinuatus*). Other significant and rare specimen rain forest plantings include stunted **Macadamia Nut Trees** (*Macadamia integrifolia*) and **Tuckeroo** (*Cupaniopsis anacardiodes*). These ornamental and

exotic looking trees provided a link with the colony's heritage and the green memory of European trees as well as evoking the romanticism of a lush antipodeans paradise. Although there are still remnants of these species in early gardens, many rain forest trees were not suited to the dryness and the frosts experienced in this district, thus planting palettes had to be modified.

The exotic and hardy ornamental **Chinese Elms** (*Ulmus parvifolia*), **Pepper Trees** (*Schinus ariera*), **Jacarandas** (*Jacaranda mimosifolia*), **Hackberry** (*Celtis occidentalis*), **Pencil Pines** (*Cupressus sempervirens*), **Funeral Cypress** (*Cupressus funebris*) and other **Cypresses** (*Cupressus spp. and Thuja sp.*) and the native, locally occurring **Kurrajong** (*Brachychiton populneum*) remain the most common sub dominants, ornamental species in this district. The ornamental, smooth barked **Lemon-scented Gum** (*Eucalyptus citriodora*), although not indigenous to this area, was a favoured native Eucalypt species in these early planting schemes.

Other less common species included the Carob Bean (*Ceratonia siliqua*), **London Plan Tree** (*Platanus hybrida*), **English Oak** (*Quercus robur*), **Holm Oak** (*Quercus ilex*), **Sweet Osmanthus** (*Osmanthus fragrans*), **Common Holly** (*Ilex aquifolium*) and **Norfolk Island Hibiscus** (*Lagunaria patersonia*). Windbreak and hedgerow plantings were dominated by **Lombardy Poplars** (*Populus nigra 'italica'*) and **Cottonwood Poplars** (*Populus deltoides*) as well as species which have become naturalised such as **Wild Olives** (*Olea africana*), Honey-locust (*Gleditsia triacanthos*) and **Large-leaved Privet** (*Ligustrum lucidum*). The ornamental **Osage Orange** (*Maclura pomifera*) was another, somewhat rare, hedgerow planting.

The tall, emergent **Bunya Pine** (*Araucaria bidwillii*) and **Hoop Pine** (*Araucaria cunninghamii*) from the drier rain forests of the Bunya Mountains and parts of the north coast of NSW and Queensland proved to be particularly suitable tree species. These native pines with their imposing scale, bold symmetry and distinctive dense green foliage, were planted on the hill top sites around the homesteads and villas of the grand estates, thus visually locating these buildings from a great distance. These species, more than any other, set a definitive grand character to these 19<sup>th</sup> century landscapes. In coastal Sydney, these pines were usually planted in association with massive **Moreton Bay Figs** (*Ficus macrophylla*) and other Fig species, however these are rare in this district, usually stunted and in poor condition. Similarly, the **Norfolk Island Pine** (*Araucaria heterophylla*), historically the most common component of these Araucaria plantings in Sydney and along the coast, is notably absent from most of these local planting schemes. In response to the drier climate and colder winter nights, hardy exotic pines such as **Monterey Pine** (*Pinus radiata*), **Stone Pine** (*Pinus pinea*) and **Loblolly Pine** (*Pinus taeda*) were planted as co dominants to the Araucarias.

Palms continue this early exotic theme and later reinforced through further palm plantings after the First World War. The tall, exotic **Washington Palm** (*Washingtonia robusta*) is a component of many historic plantings around homesteads in this district. This palm was favoured over the **Cabbage Palm** (*Livistona australis*), a native of the coastal rain forests, as it proved to be a more hardy palm to drought and frost. Nevertheless, Camden contains some rare and significant plantings of the Cabbage Palm. Furthermore, the **Chilean Wine Palm** (*Jubaea chilensis*), a very rarely planted palm in Sydney, is of great botanical

significance to Camden. They appear to be first connected with Sir William Macarthur and form a significant component of many historic plantings in the area.

Many of the larger 19<sup>th</sup> century estates display a number of common thematic elements and similarities in the planting palette and landscape layout. The homestead or villa was usually located on a commanding hill top position with panoramic views of the surrounding country side. There were often two sets of gates, firstly to the outer paddocks and secondly to the inner gardens surrounding the residence. The very hardy and long lived **Century Plant** (*Agave americana*) was used in early schemes, as a dramatic accent plant at the entrance to properties (eg Cawdor Road).

The inner gardens around the residence were delineated by hedgerow or windbreak plantings, ranging from shrubs to tall trees. These plantings nowadays are commonly a random mixture of naturalised species, however on some properties it appears that only one species was used or two species, planted alternatively to provide a mixed deciduous/evergreen hedgerow (eg *Burnham Grove*). The gates, posts and immediate fences were generally constructed in timber, though wrought iron gates and brick masonry piers have been used in some instances (eg *Camelot*). A gatehouse or gate keeper's lodge may have also been located adjacent to the entry gates (eg *Maryland*).

Typically, on entering the inner garden area, a curving gravel driveway first leads the visitor through an unkempt 'wilderness' area of tangled tree canopies, shrubs and vines before reaching a circular turn around and drop off point, adjacent to the main entry of the house. This focal area usually opens out to a formal, flat lawn, bordered by tree plantings and garden beds. It contrasts sharply with the previous plantings and is generally the most highly maintained of all landscaped areas.

A 'wilderness' area was typical of many of the larger estate plantings (Refer to *Denbigh*, *Maryland*, *Camelot*, *Gledswood*, the Macarthur Cemetery at *Camden Park* and substantially modified at *Harrington Park*). These are magnificent cloistered, mysterious and eerie landscapes. They are located quite close to the homestead and contain a variety of 'wild' shrubs, hedgerow plants and vines, dominated by species now considered weeds. These areas form a vegetative buffer or extended windbreak planting to the house. **Wild Olives** (*Olea africana*) often dominate the understory, with their tangled canopies interconnecting over the driveway, creating a 'gothic' landscape composition.

Low clipped formal hedges often lined the driveway edges through the 'wilderness' and onto the formal gardens but now many of these are overgrown. Typical formal hedging plants included **Sky Flower** (*Duranta repens*), **Cape Honeysuckle** (*Tecomaria capensis*) and **Cape Plumbago** (*Plumbago auriculata*). The groundcovers, Agapanthus (*Agapanthus orientalis*) and **Kaffir Lily** (*Clivea miniata*) were also commonly used as border plants in these areas and the formal gardens. The formal garden beds contained an eclectic mix of ornamental trees, fruit/orchard trees, shrubs, rose beds and perennial borders in the gardenesque style. These plants were set within rigid geometric or curvilinear pathways, often bordered by low hedge plants. Most of these original formal estate gardens require intensive maintenance and replanting by trained horticulturists. Consequently many gardens have fallen into disrepair over time as maintenance has been reduced. More recent and unsympathetic plantings have sometimes blurred the impact and original design intent.

'Gledswood', 'Denbigh', Belgenny Homestead at 'Camden Park' and 'Burnham Grove' are notable exceptions, displaying sensitive approaches to landscape maintenance and design for these gardens.

#### 4. Community Planting Schemes

In parallel with the development of large estates and gardens during the late 19<sup>th</sup> century, a tradition of public parks, gardens and street tree planting was also established, ensuring public access to open spaces for recreation and embellishment of the town centre. Similarly, ecclesiastical plantings associated with church yards and cemeteries continue the same palette of plants as the rural estates. In particular, **Pencil Pines** (*Cupressus sempervirens*), **Funeral Cypress** (*Cupressus funebris*) and other **Cypresses** (*Cupressus spp. and Thuja sp.*) are emphasised in these schemes.

Commemorative plantings, associated with important people in the community and events, such as the World Wars earlier this century, were often featured in these public landscapes (eg *Camden Hospital grounds* and memorial avenue plantings along the Hume Highway). The elevated site of 'Macarthur Park', Camden, is an outstanding important element in this park scheme. The 'Onslow Park (Showground)' is a further example of the strong links with the surrounding rural landscape (Refer to Listings). Landscaping of these areas followed from the models for the larger estates and botanic gardens. The species used in these public schemes were often identical to those used on the rural estates. Thus, the parkland and streetscapes of Camden have in many ways continued to complement the plantings which have characterised rural private estates. This has significantly added to the depth of these cultural and historic plantings throughout the district and created a strong cohesive landscape quality.

Photographs dating from 1896 and 1906 show John Street with mature street tree plantings of **Monterey Pines** (*Pinus radiata*) and **Pepper Trees** (*Schinus areira*). Each tree was protected from the ravages of wandering livestock by a heavy timber guard. By 1923 however, records show that a recommendation was made to remove the large Pepper Trees as a result of root damage to neighbouring properties and services. The Monterey Pines also disappeared. New planting schemes replaced many of these earlier trees however the species selected have not been recorded. Nevertheless, many of the street trees throughout Camden town centre and Elderslie still retain close links with historic rural plantings (Refer to Listings). For example, the **Jacaranda** (*Jacaranda mimosifolia*) remains a pivotal element in these street planting schemes while the major entry/exit points to Camden retain the important rural windbreak species, **Lombardy Poplar** (*Populus nigra var. italica*).

Importantly, the substantial plantings of **Liquidambar** (*Liquidambar styraciflua*) along Camden Valley Way, near the Cowpastures Bridge is a good example of recent sensitive cultural plantings, which in time will reinforce the quality of deciduous historic plantings in this district. This deciduous species, with its autumn foliage of bright reds and oranges, will provide a magnificent visual and seasonal display, against the backdrop of hedgerows and other Lombardy Poplar and Southern Cottonwood 'escapes' along the roadside.

Unfortunately, the older street tree plantings are more often in contrast with recent suburban plantings. The increasing suburban development of the local government area has reflected a particular period of interest in the use of native Australian species, particularly Eucalyptus **She-Oaks** (*Casuarina spp.*). This planting palette gained wide support in the early 70's and has only in recent years been supplanted by greater interest in the use of local indigenous species and ornamental exotics. These are trends and styles which have characterised the history of this landscape, however the pattern of developing suburban growth is systematically erasing all vestiges of both the remnant vegetation and the rural cultural plantings of Camden.

Residential development in the suburbs of South Camden (Elizabeth Macarthur Estate), Elderslie and Narellan, as well as the estates of Currans Hill, Mount Annan and Grasmere all reflect these changes. Notwithstanding this, there are some fine native street plantings (eg Bruchhauser Estate, Elderslie), but the **Tallowwoods** (*Eucalyptus microcorys*) here are an alien Australian species. These native trees from the NSW north coast have no relevance to the historic or remnant native landscapes of Camden. Similarly, the magnificent woodland remnants in Elizabeth Macarthur Estate, dominated by the **Narrow-leaved Ironbark** (*Eucalyptus crebra*), are slowly being fragmented and replaced with other ornamental trees. The streets have been planted with similar but generic Australian species, such as the ubiquitous **Narrow-leaved Peppermint** (*Eucalyptus nicholii*) and the more ornamental **Pink Flowering Mugga Ironbark** (*Eucalyptus sideroxylon var. rosea*). An indigenous and truly distinctive heritage landscape is thus degraded and devalued.

Over recent years the use of local native species has come to the fore and many local plant nurseries now stock local indigenous plant species.

It is equally important to recognise the heritage values of the original remnant vegetation as it is the culturally and historically significant planting since settlement. The remnant vegetation is a major component in establishing the landscape context and the local identity of this area. Furthermore, the district's landscape quality is drawn largely from its rural background and history. Landscape quality is derived from the sum of these factors; it is the balance between the natural remnant vegetation and the cultural landscape. The two are intrinsically intertwined and both are threatened landscapes within the context of suburban development. (Camden Significant Tree & Landscape Register 1993 & 2007)



Figure A – A photograph of St John's Anglican Church, Camden taken by 1896 shows that a pair of **Forest Red Gums** (*Eucalyptus tereticornis*) (right), remnants of the original woodland, were large specimens even at this time. The same trees are still thriving on the site. One large **Pencil Pine** (*Cupressus sempervirens*) remains from this planted group in front of the church. The immature **Monterey Pines** (*Pinus radiator*) (left) were possibly removed at a latter date.

Photo taken by Kerry & Co. courtesy of Camden Historical Society



Figure B – A photograph taken at possibly the same time as Figure A, shows John Street, Camden looking south towards the hill and St John's Anglican Church. During the 1890's the street was planted with a mixed avenue of **Pepper Trees** (*Schinus areira*), **Monterey Pines** (*Pinus radiator*) and possibly another unidentified species. Each tree was protected from the ravages of wandering livestock by a heavy timber guard.

Photo taken by Kerry & Co. courtesy of Camden Historical Society

#### **4.1. Present-day Tree Planting**

Tree planting in Camden is currently being driven by development and urban growth. This growth generates opportunities for tree planting in new riparian and bush conservation areas, public open space, infill private and commercial development, public authority infrastructure projects (RMS, State Rail), Council works program and private residential tree planting.

Tree planting generally falls into one of several categories of planting;

- street tree planting ie. new residential street
- group tree planting ie. pocket park
- tree planting within landscaping ie. child care centre, industrial complex, road reserve (Camden Valley Way dual carriageway project)
- mass planting ie. conservation areas

Each year Council is responsible for the planting of a considerable number of trees as either infill street tree planting in existing urban areas, conservation areas and parkland embellishment however the majority of tree planting currently undertaken within the LGA is carried out by others.

Council is the consenting authority and has final say on the type and location of almost all new trees planting. Where Council does not have final say, for example State projects the Council nevertheless is provided opportunity to comment on the suitability of proposed trees and landscaping on areas to be developed. By making these lists of suitable trees available to the community it is envisaged that tree planting will be conducted in a more informed way.

With many thousands of trees currently being planted and with many more thousands to be planted in the near future suitable tree selection has never been more important.

The second half of this document is divided into a series of lists containing tree species deemed to be suitable for use in particular situations. The title of each list describes the intended purpose and application of the species to be used. For example the street tree planting list is the list of trees that a developer is confined to choose from where street tree planting is concerned. The replacement or infill street tree planting list differs slightly to the street tree list in that it contains species that the Council would not approve in a new streetscape but will use in an existing streetscape to maintain continuity and uniformity.

The remaining sections are self evident in name and are more of a resource to be drawn upon where site constraints, or where specific site objectives need to be met. For instance a site may have a salt issue or there maybe existing overhead power lines.

Many tree species appear in multiply lists because their characteristics and performance is suited to a range of situations.

## CULTURALLY SIGNIFICANT SPECIES

**List Objective:** To provide a complete list of trees recognised as significant and reflective of Camden's natural, cultural and commemorative history.

**Application:** The list of significant trees and vegetation is a list of trees that mark different periods of Camden's development since settlement. Many of the species are only suited to large open spaces. Many of the trees are now considered weed species and their use is discouraged. Specialist advice is required before selecting trees from this list.

| Botanical Name            | Common Name            |
|---------------------------|------------------------|
| Acacia parramattensis     | Green Wattle           |
| Acer negundo              | Box Elder              |
| Adiantum aethiopicum      | Maidenhair Fern        |
| Agapanthus orientalis     | Agapanthus             |
| Agathis robusta           | Kauri Pine             |
| Agave americana           | Century Plant          |
| Alectryon subcinereus     | Wild Quince            |
| Angophora costata         | Sydney Pink Gum        |
| Angophora floribunda      | Rough-barked Apple     |
| Angophora subvelutina     | Broad-leaved Apple     |
| Araucaria bidwillii       | Bunya Pine             |
| Araucaria cunninghamii    | Hoop Pine              |
| Araucaria heterophylla    | Norfolk Island Pine    |
| Arbutus unedo             | Irish Strawberry Tree  |
| Arecastrum romanzoffianum | Queen Palm             |
| Bambusa sp.               | Giant Bamboo           |
| Banksia integrifolia      | Coastal Banksia        |
| Brachychiton acerifolium  | Illawarra Flame Tree   |
| Brachychiton discolor     | Lacebarks              |
| Brachychiton populneum    | Kurrajong              |
| Brachychiton rupestre     | Queensland Bottle Tree |
| Callitris rhomboidea      | Port Jackson Pine      |
| Calodendron capense       | Cape Chestnut          |
| Calodendron tomentosum    | Hairy Calodendron      |
| Camellia spp.             | Camellias              |
| Carya illinoensis         | Pecans                 |
| Cassine australis         | Red Olive Plum         |
| Castanospermum austale    | Blackbean              |
| Casuarina cunninghamiana  | River Oak              |
| Casuarina glauca          | Swamp Oak              |
| Cedrus atlantica          | Atlantic Cedar         |
| Cedrus deodara            | Deodar Cedar           |



| Botanical Name                             | Common Name              |
|--|--------------------------|
| <i>Celtis australis</i>                    | Nettle Tree              |
| <i>Celtis occidentalis</i>                 | Hackberry                |
| <i>Certonia siliqua</i>                    | Carob Tree               |
| <i>Cinnamomum camphora</i>                 | Camphor Laurel           |
| <i>Cissus antarctica</i>                   | Kangaroo Vine            |
| <i>Citriobatus pauciflorus</i>             | Orange-Thorn             |
| <i>Corylus avellana</i>                    | European Hazels          |
| <i>Corymbia citriodora</i>                 | Lemon-scented Gum        |
| <i>Corymbia maculata</i>                   | Spotted Gum              |
| <i>Cotoneaster</i> sp.                     | Cotoneaster              |
| <i>Cupaniopsis anacardiodes</i>            | Tuckeroo                 |
| <i>Cupressus arizonica</i> 'glabra'        | Arizona Cypress          |
| <i>Cupressus funebris</i>                  | Funeral Cypress          |
| <i>Cupressus macrocarpa</i>                | Monterey Cypress         |
| <i>Cupressus macrocarpa</i> 'aurea erecta' | Golden Monterey Cypress  |
| <i>Cupressus sempervirens</i>              | Pencil Pine              |
| <i>Dioscorea transversa</i>                | Pencil Yam               |
| <i>Diospyros kaki</i>                      | Persimmon                |
| <i>Duranta repens</i>                      | Sky Flower               |
| <i>Eriobotrya japonica</i>                 | Loquat                   |
| <i>Eucalyptus amplifolia</i>               | Cabbage Gum              |
| <i>Eucalyptus baueriana</i>                | Blue Box                 |
| <i>Eucalyptus benthamii</i>                | Camden White Gum         |
| <i>Eucalyptus crebra</i>                   | Narrow-leaved Ironbark   |
| <i>Eucalyptus elata</i>                    | River Peppermint         |
| <i>Eucalyptus eugenoides</i>               | Thin-leaved Stringybark  |
| <i>Eucalyptus globulus</i>                 | Tasmanian Blue Gum       |
| <i>Eucalyptus melliodora</i>               | Yellow Box               |
| <i>Eucalyptus moluccana</i>                | Grey Box                 |
| <i>Eucalyptus nicholii</i>                 | Narrow-leaved Peppermint |
| <i>Eucalyptus pilularis</i>                | Blackbutt                |
| <i>Eucalyptus robusta</i>                  | Swamp Mahogany           |
| <i>Eucalyptus sideroxylon</i> 'rosea'      | Pink Flowering Ironbark  |
| <i>Eucalyptus tereticornis</i>             | Forest Red Gum           |
| <i>Eucalyptus viminalis</i>                | Ribbon or Manna Gum      |
| <i>Euphorbia ingens</i>                    | Candelabra Tree          |
| <i>Eustrephus latifolius</i>               | Wombat Berry             |
| <i>Ficus macrophylla</i>                   | Moreton Bay Fig          |
| <i>Ficus rubiginosa</i>                    | Port Jackson Fig         |
| <i>Fraxinus biltmoreana</i>                | Pennsylvania Ash         |
| <i>Fraxinus excelsior</i> 'aurea'          | Golden Ash               |

| Botanical Name                      | Common Name              |
|-------------------------------------|--------------------------|
| Fraxinus oxycarpa                   | Desert Ash               |
| Fraxinus oxycarpa var. Raywoodii    | Claret Ash               |
| Geijera latifolia                   | Broad-leaved Brush Wilga |
| Gleditsia triacanthos               | Honey-locust             |
| Gleditsia triacanthos var. Sunburst | Golden Honey-locust      |
| Grevillea robusta                   | Silky Oak                |
| Ilex aquifolium                     | Common Holly             |
| Jacaranda mimosifolia               | Jacaranda                |
| Jubaea chilensis                    | Chilean Wine Palms       |
| Lagunaria patersonia                | Norfolk Island Hibiscus  |
| Laurus nobillis                     | Sweet Bays               |
| Ligustrum lucidum                   | Large-leaved Privet      |
| Ligustrum sinensis                  | Small-leaved Privet      |
| Liquidamber styraciflua             | Liquidamber              |
| Liriodendron tulipifera             | Tulip Tree               |
| Livistona australis                 | Cabbage Palms            |
| Lophostemon confertus               | Brush Box                |
| Macadamia integrifolia              | Macadamia Nut Tree       |
| Maclura pomifera                    | Osage Orange             |
| Macrozamia communis                 | Burrawangs               |
| Magnolia grandiflora                | Bull Bay Magnolia        |
| Malus sylvestris                    | Apple Tree               |
| Melaleuca sp.                       | Paperbark                |
| Melaleuca styphelioides             | Prickly Paperbark        |
| Melia azedarach                     | White Cedar              |
| Morus alba                          | Mulberry                 |
| Nerium oleander                     | Oleander                 |
| Olea Africana                       | Wild Olive               |
| Osmanthus fragrans                  | Sweet Osmanthus          |
| Pandorea pandorana                  | Wonga Vine               |
| Pellaea falcata                     | Sickle Fern              |
| Phoenix canariensis                 | Canary Island Date Palm  |
| Phoenix dactylifera                 | Date Palm                |
| Phoenix reclinata                   | Senegal Date Palm        |
| Phoenix rupicola                    | Cliff Date Palm          |
| Photinia serratifolia               | Chinese Hawthorn         |
| Pinus pinea                         | Stone Pine               |
| Pinus ponderosa                     | Western Yellow Pine      |
| Pinus radiata                       | Monterey Pine            |
| Pinus taeda                         | Loblolly Pine            |
| Platanus x hybrida                  | London Plane Tree        |

| Botanical Name                | Common Name        |
|-------------------------------|--------------------|
| Plumbago auriculata           | Cape Plumbago      |
| Podocarpus elatus             | Plum Pine          |
| Populus alba                  | White Poplar       |
| Populus deltoides             | Cottonwood Poplars |
| Populus nigra 'italica'       | Lombardy Poplars   |
| Prunus sp.                    | Flowering Plum     |
| Quercus Ilex                  | Holm Oak           |
| Quercus palustris             | Pin Oak            |
| Quercus robur                 | English Oak        |
| Robinia pseudoacacia          | Black Locust Tree  |
| Rosa sp.                      | Roses              |
| Salix babylonica              | Weeping Willows    |
| Sapium sebiferum              | Chinese Tallowwood |
| Schinus areira                | Pepper Tree        |
| Solanum laciniatum            | Kangaroo Apple     |
| Stenocarpus sinuatus          | Firewheel Tree     |
| Streblus brunonianus          | Whalebone Tree     |
| Syzygium australe             | Brush Cherry       |
| Taxus sp.                     | Yew                |
| Tecomaria capensis            | Cape Honeysuckle   |
| Thuja orientalis              | Bookleaf Cypress   |
| Thuja spp. and Cupressus spp. | Cypress            |
| Toona australis               | Red Cedar          |
| Trachycarpus fortunei         | Windmill Palm      |
| Ulmus parvifolia              | Chinese Elm        |
| Ulmus procera                 | English Elm        |
| Washingtonia robusta          | Washington Palm    |
| Wisteria sinensis             | Wisteria           |
| Yucca aloifolia               | Spanish Bayonet    |