THE PLAN

3.1 EXISTING LANDSCAPE CHARACTER

"Centennial Park contains a wide range of landscape character, and this diversity is its most distinguishing feature."

An Overview of the Centennial Parklands

The three parks comprising the Centennial Parklands share several common characteristics; however, differences in use, topography, and planting patterns amongst them result in three quite distinct landscapes. Moore Park, with its expansive playing fields and broad avenues, is an active and decidedly urban park, and is distinguished by the scale of its avenues and the dominance of Moreton Bay and Hill's figs. At the other end of the spectrum, Queens Park, overlooked by suburban neighbourhoods and undivided by roads or avenues, is quieter and more residential in scale. Its steep slopes and the varied woodland plantings around its edges provide intimate spaces and extended views across its playing fields and the rest of the Parklands. Centennial Park contains a diversity of landscape characters and this is its most distinguishing feature. It is a cultural landscape, characterised by grand avenues of Port Jackson figs, Araucaria trees, Holm oaks and rows and groves of paperbark trees. There are natural areas of watercourse and bushlands with pockets of forest. There is a renowned garden precinct that invites and encourages a variety of leisure activities. The matrix that flows throughout the parklands and links all areas are the wide open grasslands spaces.

This section defines and maps the landscape character of the Centennial Parklands, provides a visual appreciation of the diversity of vegetation and a baseline for the promotion of conservation or change to existing conditions.

3.2 LANDSCAPE CHARACTER - DEFINITIONS

The various types of landscape character in the Parklands are largely the result of combinations of topography and tree plantings. For the purposes of this report, eight types of landscape character were identified and used to describe the general patterns and effects created by tree groupings. The definitions aim to identify the main and distinguishing qualities of each character type. The definitions, whilst borrowing from botanical terminology, were developed to classify the tree associations and groupings specific to the Centennial Parklands.

Gardens

Areas devoted primarily to ornamental horticultural displays, such as flowerbeds. Garden areas may also include trees, hedges, statuary and monuments, but their principal focus is horticultural display. Garden areas in the Centennial Parklands, particularly the floral displays in 'Frog Hollow' are major attractions for park visitors.

Avenues, rows, and belts

This category comprises the various linear and formal tree plantings in the Parklands such as the avenues of trees lining Grand Drive and the paperbark groves found in the wetsoil areas. Linear plantings define spaces within the park, and provide shelter from sun and wind, or serve as wildlife corridors.

Open Grassland

Open areas of grass, including playing fields and fairways. The character of open grasslands varies with their maintenance regime from the regularly maintained and irrigated fields to the more natural looking areas of unirrigated and infrequently mown grass. Open grasslands may contain occasional small groves or belts of trees planted to create a picturesque effect.

Evergreen Wooded Grassland

Areas containing more trees than open grassland, and distinguished by irregularly spaced trees providing light and random cover to an area of mown or unmown grass. Tree plantings may be widely spaced single specimens or groves of various sizes. Trees within the evergreen wooded grassland typically include the traditional Parkland palette of figs, evergreen oaks, and pines.

Deciduous Wooded Grassland

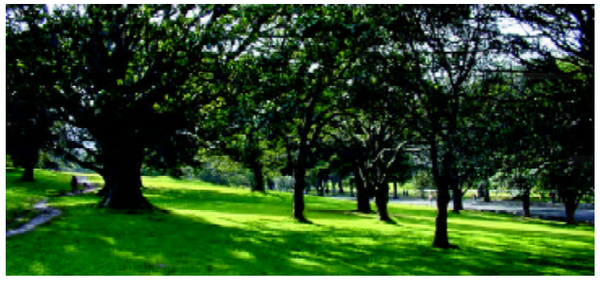
Areas containing more trees than open grassland, and distinguished by a high proportion of deciduous trees that provide light and random cover when in full leaf. The trees may be widely spaced single specimens or in groves of various sizes. Deciduous wooded grassland areas in Centennial Parklands are limited to Musgrave Pond. The deciduous tree species within Centennial Parklands include coral trees, willows, liquidambar, poplars, English oak and swamp cypress.

Forest

Areas planted densely with trees and shrubs and having a nearly continuous canopy cover. Forest areas in the Centennial Parklands include native and exotic plantings, the latter consisting mainly of pines. The strong visual presence of forests makes them dominant landscape features.

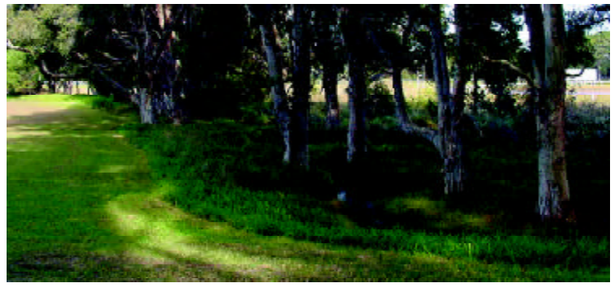
Woodland

Areas where trees are dominant, and generally provide moderate canopy cover. Trees are planted randomly in large groves with a grassy understorey (mown or unmown) throughout. Woodland areas are found throughout the Parklands, but are dominant on the periphery where they provide a buffer to the surrounding roads and neighborhoods. Trees in the woodland areas typically include the traditional Parklands palette of figs, evergreen oaks, and pines.



Watercourse

Dense plantings of mainly riparian trees with a nearly continuous canopy cover. These often occur as informal belt arrangements tracing streams and/or water channels, and can serve to stabilize stream banks. Examples include the paperbark and casuarina belts delineating Mission Fields, Mackay Oval and the Equestrian Field. These plantings provide wildlife habitat as well as aesthetic value, and may also control erosion.



Araucaria columnaris
Cook Pine

Araucaria cunninghamii
Hoop Pine

Araucaria heterophylla
Norfolk Island Pine

Washingtonia robusta
Mexican Washingtonia

Agathis robusta
Queensland Kauri Pine

Phoenix canariensis
Canary Island Date Palm
Declining population due to
Fusarium Wilt.

Melaleuca quinquenervia
Five-Veined Paperbark

Quercus ilex
Holly Oak

Erythrina x sykesii
Coral Tree

Pinus pinaster
Maritime Pine

Pinus radiata
Monterey Pine

Ficus microcarpa var. hillii
Hill's Fig

Ficus macrophylla
Moreton Bay Fig

Ficus rubiginosa
Port Jackson Fig

3.3 ISSUES AND RECOMMENDATIONS

A large and consolidated area of public open space such as the Centennial Parklands generates many issues concerning the health and management of its tree population. The Centennial Parklands has a strategic location in a densely populated urban environment, supports an aging but historically and culturally significant tree population, and is subject to the pressures of urban expansion, increasing visitation, and changing patterns of use. Its viability depends on identifying and responding to opportunities and constraints embedded in these and other issues related to the management of its tree population.

In order to appreciate the range and significance of the issues, this study commenced with a comprehensive data gathering and analysis stage; the results and a synthesis of this are presented in Volumes II and III. This work provided a background of empirical data upon which to make an assessment of the past and present landscape. A review of the data collated in Volume II of this report in conjunction with general observations and discussions with the Parklands staff elicited many issues affecting the present and future directions for tree management across the Parklands. The issues can be grouped under common headings and include matters of planning, landscape character, external forces, experimentation, maintenance, and community awareness. In direct response to these issues, general recommendations were formulated. The intent is that the Parklands administration can implement these recommendations over the life of the Tree Masterplan. The following table summarises the principle issues and associated recommendations:

ISSUES	RECOMMENDATIONS
1. INSTITUTE LONG TERM PLANNING	
1.1 The Parklands comprise three separate parks, Centennial, Queens and Moore. Each has a distinct character, and they are not well connected, visually or physically.	1.1 Maintain the individual identity of each park and promote connections through tree planting.
1.2 The Parklands originally contained only a small number of designed planting elements, mainly the avenue plantings lining the roads and drives. Many of these are extant, but are mature to overmature, entering a state of decline, and in need of replacement or reinforcement in the near future.	1.2 Conserve by replacing in kind the avenues and belts that are particularly characteristic of and significant to the Parklands. This includes the fig avenues which provide major circulation and entry to the Parklands such as Anzac Parade, Parkes Drive, Loch Avenue, MacArthur and Gregory Avenues as well as the extensive linear plantings of paperbark which provide shelter and habitat in the central portion of Centennial Park.
1.3 Centennial Parklands has never had a formal master planting plan. This has created many unrealized opportunities, and has led to some unevenly successful phases of landscape management, including the groups of native trees planted between 1940 and the 1970s.	1.3 Implement this Tree Masterplan to effectively guide the selection and placement of trees and provide a sound basis for management of 'change' – the removal and replacement of trees.
2. ACKNOWLEDGE EXTERNAL OPPORTUNITIES AND CONSTRAINTS	
2.1 Throughout the history of the Parklands, urban expansion and infrastructure works, most recently the construction of the Eastern Distributor have encroached on and resulted in an incremental loss of parkland and associated tree population.	2.1.1 Concentrate significant park character and specimen trees along the Parkland boundaries to deter any future proposals that may encroach onto the Parklands. 2.1.2 Extend the fig and oak dominated woodland character of Centennial Park edges to the perimeter of the Parklands. This will create aesthetic continuity and strengthen the visual identity of the Parklands. It will involve planting along South Dowling Street, Moore Park Road, Roberston Road, Darley Road, York Road, Baronga and Queens Park Road.
2.2 The Parklands have weak physical links to the city.	2.2 Liaise with the relevant stakeholders and park and recreation planners at State and Local Government to encourage tree planting along major routes with the aim of strengthening the links between the Parklands and the city. It is recommended that the Road and Traffic Authority, and Randwick, South Sydney and Woollahra Councils are included in this effort.
2.3 The Parklands lack a distinct point or hierarchy of entry.	2.3 Mark important external corners, entrances and junctions with tree plantings and/or garden beds which complement or highlight the existing character of the Parklands. This will strengthen the presence of and access to the Parklands.

ISSUES	RECOMMENDATIONS
3. CONSERVE AND DEVELOP LANDSCAPE CHARACTER	
3.1 In the absence of a master plan, trees often have been replaced on an ad hoc basis. As a result, an inadequate number of trees are being replaced and the selection and placement of trees is not coordinated by established strategies or principles. This practice is having a cumulative effect on the overall landscape character of the Parklands, resulting in many areas with ambiguous landscape character.	3.1.1 Identify and conserve elements and spaces essential to the historic and aesthetic character of the Parklands.
	3.1.2 The conservation of planting features will involve one of two replanting programmes. The first is the replacement in kind of specific, defined features such as avenues and groves. The second option applies to larger areas less well defined with an ambiguous or overgrown quality, such as the Moore Park Golf course, the Carrington Slopes and the Southwest Corner. In these instances, reconfiguration will occur by gradually adding new planting, and removal will occur slowly through attrition.
3.2 The Parklands management is continually adapting to changes in recreational and leisure needs; these changes also present constraints and opportunities for modifications to landscape character.	3.2 Add new plantings to sustain or enhance historic and aesthetic character and to accommodate changes in use and conditions in the Parklands.
3.3 Whilst leisure opportunities can change relatively quickly, modifications in the landscape to accommodate change are by the nature of tree growth, occur more slowly.	3.3 Liase with recreation planners to develop educational programmes.
4. COMMUNITY AWARENESS AND APPRECIATION OF PARKLAND TREES	
4.1 The trees of the Centennial Parklands currently have a low level of heritage interpretation. There is a need to increase awareness and value of the Parklands' tree heritage.	4.1.1 Make opportunities, such as tree walks and community planting days, to improve community appreciation of the cultural significance of the Parkland trees.
	4.1.2 Increase staff expertise in the maintenance of historic trees.
	4.1.3 Engage the community in the process of implementing the recommendations in this Masterplan.
	4.1.4 Develop strategies and programmes to gain community acceptance of tree removals and replacements.

ISSUES	RECOMMENDATIONS
5. DEVELOP REPLANTING STRATEGIES	
5.1 The highly competitive and restrictive growing conditions found along the roads in the Parklands make it inherently difficult to infill the avenues and rows of trees lining their edges. In addition, infill planting makes it especially difficult to attain the uniform appearance typical and desirable of avenue plantings.	5.1 The removal and replacement of avenue plantings in blocks is critical to ensure good overall form and structure of avenue plantings.
5.2 The process of landscape renewal can be invasive, in that otherwise healthy trees may need to be sacrificed to ensure the viability of new plantings or to obtain a uniform effect.	5.2 Where possible, replanting will precede removal, and removal will occur through attrition. This will ensure that change is gradual and subtle.
5.3 Tree removal and replacement is an emotive issue.	5.3.1 There is a need to promote community awareness and acceptance of the need for and process of tree removal and replanting programmes. 5.3.2 Replanting will occur only for the following specific reasons: to conserve or reinforce landscape character; to strengthen visual and physical connections or to accommodate changes in use. New planting must have manageable maintenance requirements, be tolerant of the prevailing site conditions and where possible, improve wildlife habitat.
6. EXPERIMENTATION	
6.1 The Parklands contain over 7000 individual trees, but represent a limited number of tree species. The Parklands have particularly difficult environmental conditions for the successful establishment of a wide range of tree species.	6.1 Continue experimentation with trees species in order to expand the palette of suitable trees for the Parklands. Experimentation must be managed carefully to reduce associated risks.
6.2 The disease *Fusarium oxysporum* has decimated substantial numbers of mature and recently established palms. It has also highlighted the broader issue of the future viability of palms across the Centennial Parklands.	6.2 Continue to seek solutions to the issue of palm viability.
6.3 The coral tree, a flowering deciduous species, is widely used in Centennial Park and Queens Park. There is growing concern over the potential hazard potential of the brittle wood of the older specimens.	6.3 Restrict the use of coral trees to low risk areas, away from roads and footpaths. Investigate replacements for the coral tree. The replacement species must be a flowering, deciduous tree that contrasts with the predominant evergreen foliage of the Parklands. Consideration must also be given to providing appropriate and desirable wildlife habitat.

ISSUES	RECOMMENDATIONS
7. ENHANCING NATIVE FAUNA	
7.1 There are few remaining natural habitat areas remaining in the Eastern suburbs of Sydney,	7.1 provide suitable habitat for a diversity of native fauna species that are endemic to the Parklands area or its immediate region,
7.2 Fauna requires a diversity of tree types and landscape characters in which to find or create suitable habitat,	7.2 manage the trees of the Parklands to benefit all native fauna species, without unwarranted emphasis on any one species at the expense of others,
7.3 Providing suitable habitat enhancement without compromising the historical and cultural values of the Parklands,	7.3 provide the maximum fauna habitat within the limitations of the cultural setting, recognising the range of other values and objectives required of the Parklands,
7.4 The impact of pests and predatory fauna affects native habitat and the diversity of species,	7.4 review the conditions that caused fauna species to be lost from the Parklands and to remove the causes of these losses wherever possible,
7.5 Fauna is a constantly changing and evolving issue in that seasonality, climatic conditions, competition and human impacts affect the range and number of native species throughout the Parklands at any one time. It is therefore difficult to fully comprehend or appreciate the habitat values of the Parklands.	7.5 Fauna conservation management plans should be prepared for each Parkland precinct as works are being planned in order to build up a broad view over a period of time.
8. MAINTENANCE	
8.1 Traditionally, maintenance practices have reacted to problems rather than prevented them. This approach does not allow adequate time or resources for planning.	8.1 Management practices must respond to the requirements of achieving and maintaining the proposed changes in landscape character set out in this Masterplan. In addition, the Parklands must adopt a proactive maintenance regime, including preventative maintenance programs. This proactive approach will include the retention and continued training of staff, and the continuation of existing monitoring and record-keeping systems.
8.2 With limited maintenance resources, many areas in the Parklands receive a low level of care. This has resulted in many self-sown species, the spread of weeds, an increase hazardous conditions and a large number of overgrown planting features. While these low maintained areas, are reducing the aesthetic and recreational value of the parklands, they do however offer habitat for various species. The continuing tall grasses and occassional shrub and dead tree are inviting places for nesting and also for movement around the parklands	8.2.1 Reduce the potential for tree failure by selecting species suitable for the microclimatic conditions of the Parklands, and investing in quality stock. 8.2.2 Develop tree protection programmes in high activity zones, such as road edges to improve tree performance. In particular, parking in root zones must be discouraged. 8.2.3 Consider modified management practices in outer areas and along wildlife corridors such as watercourses to enhance habitat