
Strategic Conservation and Asset Management Plan

Royal Tasmanian Botanical Gardens



Inspiring Place Pty Ltd
Environmental, Tourism and Recreation Planning
and Landscape Architecture

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208B Collins Street Hobart 7000 P 03-6231-1818 F 03-6231-1819 E jerrydegryse@inspiringplace.com.au

in association with

Mary Knaggs
Heritage Architecture and Townscape

Harry Whiteside
Logov Consulting – Asset and Public Risk Management

David Parham
Austral Archaeology – Heritage Archaeology

Colin Hughes
Aboriginal Heritage Officer

Dick Bryden
Quantity Surveyor



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TABLE OF CONTENTS

Table of Contents	i
Executive Summary	I
Background	I
Key Findings.....	II
Other Recommendations.....	VI
Chapter 1 Background.....	1
1.1 An Overview of the Asset	13
1.2 Scope of the SCAMP.....	9
1.3 Governance of the RTBG	9
1.4 Previous and Current Studies	12
1.4.1 <i>Strategic Plan</i>	12
1.4.2 <i>Asset Valuation Register</i>	14
1.4.3 <i>Situational Analysis</i>	15
1.4.4 <i>Plant and Equipment Register</i>	15
1.4 The Structure of the Report.....	16
1.5 Methods.....	16
Chapter 2 Assessment of Cultural Significance	19
2.1 A Cursory History of the RTBG	19
2.2 Aboriginal and Archaeological Values	23
2.2.1 Aboriginal Values	23
2.2.2 Archaeological Values	23
2.3 Statement of Cultural Significance	26
2.3.1. Existing Recognition of the Cultural Heritage Value of the RTBG.....	26
2.3.2. A New Cultural Heritage Significance Assessment of the RTBG.....	28
Tasmanian Heritage Register Criteria	28
Aesthetic Values.....	32
2.4 Conservation Policies	33
Chapter 3 Strategic Asset Management Issues	41
3.1 Historic Precinct	41
3.1.1 Background	41
Queens Domain.....	41
Government House	42
Beaumaris Zoo	43
Derwent River Foreshore and Pavilion Point	43
Cornelian Bay Cemetery	43
3.1.2 Recommendation.....	44
3.2 Conservation Management Plan.....	44
3.2.1 Background	44
3.2.2 Recommendation.....	45
3.3 Topographic and Features Survey.....	46
3.3.1 Background	46
3.3.2 Recommendation.....	46

3.4 Access	47
3.4.1 Background	47
3.4.2 Legislative Requirements	48
3.4.3 Recommendation	49
3.5 Water Audit.....	50
3.5.1 Background	50
3.5.2 Recommendation	52
3.6 Interpretation and Information Strategy	53
3.6.1 Background	53
Interpretation.....	53
Information	54
3.6.2 Recommendation.....	55
3.7 Nursery and Depot.....	56
3.7.1 Background	56
3.7.2 Recommendation	57
3.8 Aboriginal Heritage	58
3.8.1 Background	58
3.8.2 Recommendations	58
Chapter 4 Catch-Up Maintenance and Cyclical Maintenance Plans	61
4.1 Assessing the Overall Condition	61
4.2 Overall Condition Assessment	63
4.2 An Overview of the Catch-Up Maintenance Requirements	67
4.3 An Overview of the Cyclical Maintenance Requirements	71
Chapter 5 Matters Outside the SCAMP	73
5.1 the Strategic Master Plan.....	73
5.2 ... And Beyond.....	74
Bibliography	75
Appendix A The Brief for the SCAMP	A1
Appendix B Precinct Descriptions.....	B1
Appendix C Data Sheets – Built Features.....	C1
Appendix D Data Sheets – Paths, Areas and elements	D1
Appendix E Risk Management Assessment.....	E1
Appendix F Catch Up Maintenance and Cyclical Maintenance Plans	F1
Appendix G Aboriginal heritage Survey	G1
Appendix H Archaeological Assessment	H1
Appendix I Extracts from Various Heritage Registers	I1
Appendix J Plant and Equipment Register.....	J1



LIST OF MAPS, FIGURES, TABLES

Map 1.1 Location of the Royal Tasmanian Botanical Gardens	3
Map 1.2 Zoning Diagram.....	13
Map 2.2 Archaeological Sensitivity Zoning Map	27
Figure 1.1 Relationship Between Various Planning Activities at the Royal Tasmanian Botanical Gardens.....	4
Table 2.1 Key Dates in the Development of the RTBG	22
Table 2.2 Conservation Policies for the RTBG	39
Table 4.1 Schedule of Required Expenditure Over 5 Year Period	64
Table 4.2 Number and Cost of Catch Up Maintenance Items by Trade	66
Photograph 2.1 View to Government House from Royal Tasmanian Botanical Gardens c1878	26

ATTACHMENTS

Compact Disc Including Data Sheets for Built Features and Elements and Photo Record of Assets at the Time of the Study



EXECUTIVE SUMMARY

BACKGROUND

The Royal Tasmanian Botanical Gardens (the RTBG or the Gardens) is one of Tasmania's most significant cultural assets – comprised of one of Australia's best cool climate gardens with collections of international importance, set in a landscape of significance to the Aboriginal and wider community and amongst buildings, paths and other features some of which date from the establishment of the Gardens in 1818 (see Chapter 2 for a history of the site). The value of the Gardens to the community and its economy is reflected in the Gardens being one of the most visited tourism attractions in the State.

Given the importance of the RTBG to the community and the nation's heritage, a considered and comprehensive approach to management is being taken – one that is grounded in a strategic framework that delivers outcomes that will sustain the site's heritage into the long term future (see Chapter 1). The RTBG has recognised the need within this strategic framework for a Strategic Conservation and Asset Management Plan (SCAMP) that specifically focuses on the site's built assets, plant and equipment (e.g. excluding living collections which have been subject to a separate study¹). The SCAMP in particular addresses Goal 1 of the *Strategic Plan 2003-2007* to “ensure the RTBG is internationally recognised for: southern hemisphere cool climate plants, cultural landscape and Aboriginal and European heritage”.

Preparation of the SCAMP has led to the development of a detailed statement of significance (see Chapter 2). The heritage assessments, recommendations and statement of significance respect the significant cultural heritage of the Gardens in line with the framework of the *ICOMOS Burra Charter* and the *Australian Natural Heritage Charter* and relevant legislation including the *Historic Cultural Heritage Act 1995*. The SCAMP also sets out to meet the demands of modern usage and attendant safety and maintenance standards and, therefore, the site has been subject to a safety audit as part of the project (see Appendix E).

The basis for determining maintenance directions has been the completion of a comprehensive inventory, from a conservation and risk management perspective of all of the RTBG's assets (both known features and potential/likely sub-surface features) (see Appendices C, D, G and H). The inventory has been informed by a clear understanding of the history of the site and its context (Chapter 2) and by a thorough understanding of the site's current use patterns and operations.

¹ Macfayden, A. and Papworth, N. 2002. “Situational Analysis of the Cultural Landscape of the Royal Tasmanian Botanical Gardens” unpublished internal report.

The SCAMP has been prepared by Inspiring Place Pty Ltd (Environmental, Tourism and Recreation Planners and Landscape Architects), Mary Knaggs (Conservation Architect), David Parham (Archaeologist, Austral Archaeology), Colin Hughes (Aboriginal Heritage Officer), Harry Whiteside (Risk Analyst, Logov Consulting) and Dick Bryden, Quantity Surveyor. The Consultants worked in conjunction with a Steering Committee consisting of Jim Cane (RTBG), Brendan Lennard (Hobart City Council), Deidre Wilson (DPIWE) and Jo Lyngcoln (Tasmanian Heritage Office).

The Consultants have been informed through the input of staff and stakeholders in separate workshops.

The SCAMP is considered to be a living document that needs to be regularly reviewed and modified to respond to changes in statutory and legislative requirements and to account for improvements that are made as the result of its implementation.

KEY FINDINGS

On the whole the physical assets of the Gardens have been found to be in very good condition – the facility generally presents well to the public, there are few risk hazards and limited concerns for OH&S. Several essential items of plant and equipment and vehicles are nearing the end of their useful life and require replacement. Assuming appropriate funding is available, catch-up maintenance and cyclical maintenance will address the concerns that have been identified (see Chapter 4).

The table below sets out a summary of the required expenditure for catch-up and cyclical maintenance based on the schedules in Appendices F and J.



	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	Total Period
BUILT ELEMENTS AND FEATURES						
Catch Up Maint - P1*	\$282,000	n/a	n/a	n/a	n/a	\$282,000
Catch Up Maint - P2*	\$137,600	\$137,600	n/a	n/a	n/a	\$275,200
Catch Up Maint - P3*	\$68,860	\$68,860	\$68,860	\$68,860	\$68,860	\$344,300
Sub- Total CUP	\$488,460	\$206,460	\$68,860	\$68,860	\$68,860	\$901,500
Cyclical Maintenance*	\$67,087	\$67,087	\$67,087	\$67,087	\$67,087	\$335,435
PLANT AND EQUIPMENT						
Catch Up Maint - P1**	\$190,000	n/a	n/a	n/a	n/a	\$190,000
Catch Up Maint - P2**	\$46,500	\$46,500	n/a	n/a	n/a	\$93,000
Catch Up Maint - P3**	\$12,600	\$12,600	\$12,600	\$12,600	\$12,600	\$63,000
Sub-Total CUP	\$249,100	\$59,100	\$12,600	\$12,600	\$12,600	\$346,000
Annual Leasing Costs (Vehicle and Non-IT Equipment)**	\$54,000	\$54,000	\$54,000	\$54,000	\$54,000	\$270,000
Cyclical Replacement IT Items***	\$8,500	\$8,500	\$8,500	\$8,500	\$8,500	\$42,500
Totals All Items (CUP + Cyclical)	\$867,147	\$395,147	\$211,047	\$211,047	\$211,047	\$1,894,435

* From Appendices F ** From Appendix J

*** Based on \$25,000 worth of leased IT goods replaced on a three year rotation.

Schedule of Required Expenditure Over 5 Year Period

The table indicates that approximately \$1.6M will be required over the next five financial years to address the catch-up maintenance and cyclical maintenance requirements of the Gardens for its Built Features, Elements, Plant and Equipment.

Amongst the issues identified, the highest priority for catch-up maintenance (P1) has been assigned to:

- substantive upgrading of strategically important buildings including:

the Conservatory (B22) (which requires urgent works to resolve rising damp issues);

the Fernery (B9) (which is in need of refurbishment or replacement with specific attention to access issues);



the Cactus House (B23)(within which there are access and risk concerns);

- upgrading of strategically important elements of the path network such as:

where the standard of presentation and/or access is impeded [such paths include the major east-west link path from Pete's Patch to the boundary (visual) (P7c), the east-west link path below the Conservatory (visual) (P16b), the footpaths adjacent to the lower toilets (access and visual) (P17) and the initial section of path leading from the lower car park to the 'eastern section' (visual)] (P14c);

the removal of the over-steep and uneven steps/path through the Rhododendron collection (risk management); and

improvements to the foreshore footpath (risk management) (P40c);

- modifications to strategically important elements of the stormwater system including:

replacement of existing stormwater pipe from Government House from the Eardley Wilmott Wall to Path 16 (see Path 14 for details):

improvements to the drainage at the front entry to the Visitor Centre to eliminate ponding (P32);

the replacement of a number of trench grates which pose access problems because of their set down below surrounding surface levels (numerous); and

the installation of appropriate stormwater devices (trench grates, water bars, open drain, etc.) where the path main northern path (P22) intersects with the gravel path from the Pinetum (P30) and the links to the pond, Tasmanian Collection, etc. (P31);

- urgent maintenance to strategically important features including elements:

within the Japanese Garden (P8) such as the handrails and the arched bridge (critical to the preservation of the asset);



within the French Memorial Fountain Garden (P9) such as the need to properly enclose the exposed electrical cable (risk management), reduce the level of noise generated by the pump (presentation) and to replace the handrails around the pond (risk management);

main entry car park where the stairs from Lower Domain Road (P10) to the main gates are unsafe (risk management – note these works are currently planned and budgeted for); and

the entry ramp to the Pavilion ‘Wombat 1’ (B6 and P22) which has settled and requires repair to eliminate a trip hazard (risk management);

- urgent elimination of other significant risks including:

removal of disabled access signage from the lower car park (P18) and new signage which redirects disabled people away from this area to the main entry car park (coupled with this action should be the reallocation of parking spaces in the main car park for this purpose);

construction of an access hatch over the stormwater junction pit at the head of the main drainage line above the pond to prevent accidental entry and to reduce the fall hazard which is present at the moment (risk management) (P24);

removal or reconstruction of the pergola at the head of the steps to the Anniversary Arch (these works are already programmed and budgeted for) (P36); and

provision of a handrail(s) to the stairs leading down from the pond through the Anniversary Arch (P36);

- modifications to building elements to protect their conservation values and/or operational integrity including:

further conservation of the Eardley Wilmot Wall including provision of new agricultural drainage, removal of cement render, application of sacrificial render and re-pointing in lime mortar (B34); and



works to address rising damp issues in the Administration Building (B21) including removal of sections of the hard paving against the southern and eastern wall of the building and installation of new drainage measures to the Depot area above the building;

- consideration of building adaptations to meet strategic requirements including:

provision of a passenger lift within the Visitor Centre (B1);

air conditioning of the lower level of the Visitor Centre (B1) (required for protection management of key archival documents, the library and plant specimens);

air conditioning of the Restaurant and Kitchen and provision of new kitchen extraction hoods to the kitchen (B2);

resolution of the future adaptation or removal of the Easy Access Garden Roundhouse (B9) and associated garden benches, beds, and structures to ensure that current access standards and functional requirements are met;

- replacement of essential plant, equipment and vehicles which are at the end or near the end of their working lives including:

the rotary tiller hoe (Inv. No. 151);

the dumpy rough rider (Inv. No. 7001);

a tractor (Inv. No. 7004); and

the tip truck (Inv. No. 7008).

OTHER RECOMMENDATIONS

A number of strategic asset management issues were identified in the SCAMP which led to a number of recommendations as follows:

1. Consideration should be given to how management of the Queens Domain, Government House, the Beaumaris Zoo, the Derwent River foreshore, Pavilion Point and the Cornelian Bay Cemetery might be better integrated with the RTBG.



2. A comprehensive Conservation Management Plan should be prepared for the RTBG (this would expand on the SCAMP's strategic framework and provide specific conservation prescriptions for the Gardens as a whole and the features within it).
3. A comprehensive topographic and features survey of the Gardens should be undertaken.
4. An Access Action Plan should be prepared in accordance with Part 3 of the *Disability Discrimination Act 1992*.
5. The stormwater, irrigation and water systems should be analysed in the form of a 'Water Audit' with a view to ensuring best practice water management² through the implementation of a 'Water Management Plan' for the Gardens.
6. Prepare an Interpretation and Information Strategy for the Gardens.
7. Examine the options for integrating the Nursery and the northern storage yard into a single location.
8. An Aboriginal Heritage Survey should be conducted for the whole of the RTBG site, with the results of the survey being used to guide on-going care and management.
9. A cross cultural awareness course should be run for Gardens staff to encourage a greater understanding of Aboriginal heritage within the site.
10. Investigate the RTBG's strategic organisation and accommodation needs in relation to the best use of existing facilities, and what may be required for the future.

Investigations and stakeholder consultation carried out as part of the SCAMP also identified a range of strategic issues that are best dealt with through a Strategic Master Plan for the Gardens (Chapter 5). The outcomes of the above investigations should form the basis for the preparation of the Strategic Master Plan.

Key elements of the proposed Strategic Master Plan include improvements to the boundary fencing along the Domain Highway to improve functionality and reduce traffic noise; upgrading of the Training Rooms (B7), development of a return walk from the northern section of the Gardens, improvements to car parking arrangements and modifications of the Visitor Centre (B1) to enhance its operation.

² At a strategic level consideration might be given to an overall Environmental Management Plan which considers not only water usage but also waste management, energy management, pesticide and herbicide use, hazardous chemicals and dangerous goods, etc.



CHAPTER 1

BACKGROUND

1.1 OVERVIEW OF THE ASSET

The Royal Tasmanian Botanical Gardens (the RTBG or the Gardens) is one of Tasmania's most significant cultural assets – comprised of one of Australia's finest cool climate gardens with collections of international importance, set in a landscape of significance to the Tasmanian community (including the Tasmanian Aboriginal community) and amongst buildings, paths and other features some of which are historic and date from the establishment of the gardens in 1818 (Map 1.1). The value of the Gardens to the community and its economy is reflected in the Gardens being one of the most visited recreational and tourism attractions in the State.

Given the importance of the RTBG to the community and the nation's heritage, a considered and comprehensive approach to management is being taken – one that is grounded in a strategic framework (Figure 1.1) that will deliver outcomes that will sustain the site's heritage into the long term future. The RTBG has recognised the need within this strategic framework for a Strategic Conservation and Asset Management Plan (SCAMP) that specifically focuses on the site's built assets (e.g. excluding living collections which have been subject to a separate study - Macfadyen and Papworth 2002) and to a lesser extent on the movable plant and equipment which have been subject to separate studies.

The Brief for the SCAMP (the current study) states that its aim "is to provide an overall Strategic Conservation and Asset Management framework for the Gardens over the next five years and beyond (Appendix A). The SCAMP is seen as an important precursor to the preparation of a long term Strategic Master Plan in the near future". The Strategic Master Plan document will be a comprehensive blue print addressing the future use and development for the long term (> 10yrs.). While the SCAMP has had selected stakeholder input, additional and more expansive public consultation will occur during the Strategic Master Planning process.

The *Strategic Plan 2003-2007* for the RTBG was prepared in a separate process concurrent with the SCAMP. The SCAMP in particular addresses Goal 1 of the *Strategic Plan 2003-2007* to "ensure the RTBG is internationally recognised for: southern hemisphere cool climate plants, cultural landscape and Aboriginal and European heritage". More specifically, the SCAMP addresses Strategy 1.3 "to manage, enhance and develop Aboriginal and European cultural heritage". Under

this strategy, implementation of the SCAMP is identified as an action which is to be undertaken in the short to medium term (see Section 1.3.1 for further detail).





LOCATION MAP 1.1

August 2003



INSPIRING PLACE

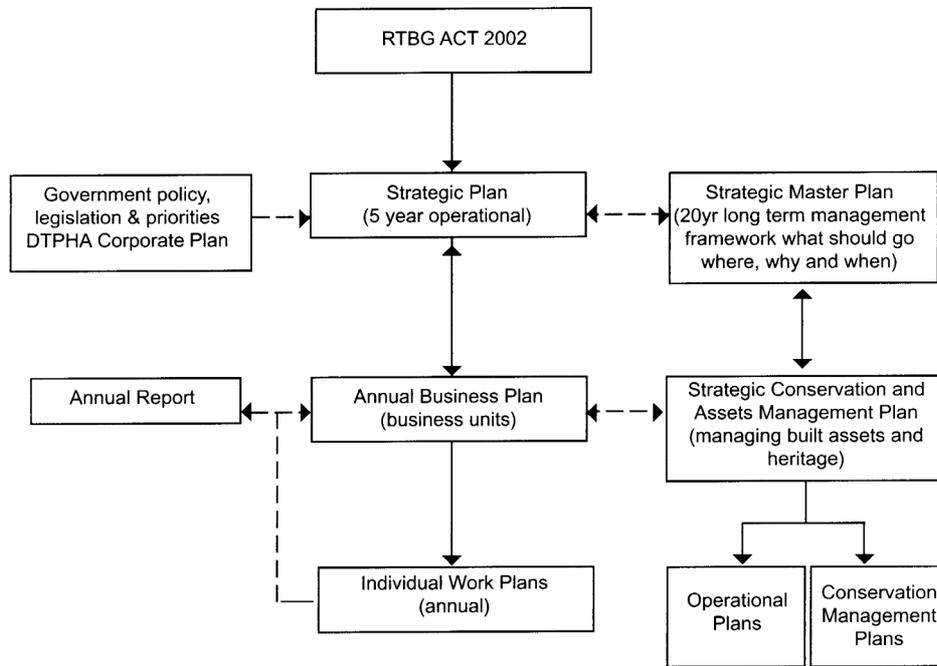


Figure 1.1 Flow Chart Showing Relationship Between Various Planning Activities at the Royal Tasmanian Botanical Gardens

The Royal Tasmanian Botanical Gardens is approximately 14.1 hectares in size and has been developed over a period of nearly 200 years to include extensive gardens and lawns, numerous built features and an extensive infrastructure. The Gardens is located on the Queens Domain, in a precinct that includes Government House, the historic Beaumaris Zoo site and large areas of remnant native grasslands.

The Gardens has an easterly aspect, a close proximity to Derwent River³ and a sweeping outlook. The property also has a moderately sloping topography (between 1:20 and 1:5) with a number of ephemeral drainage lines.

There are three primary entries to the Gardens, the historic Main Entry off Lower Domain Road, the Lower Entry off the Domain Highway and the Northern Entrance off Lower Domain Road at the far end of the property. There are also several lesser used service entrances.

³ The Gardens initially extended all the way to the foreshore. The construction of the railway in 1873 severed the connection between the Gardens and the foreshore although access was retained and parts of the foreshore remained with the Gardens. In 1943, the construction of the Domain Highway exacerbated the separation between the Gardens and foreshore making access extremely difficult, all but eliminating any access by patrons of the Gardens. Today, the RTBG still retain and manage 0.41 hectares of the foreshore which is linked to a Council managed foreshore walking track and the old Botanical Gardens railway station platform.



The Gardens can be sub-divided in various ways. For planting purposes this has been done by 'sections'. Over 50 sections with numerous sub-sections have been mapped. These sections were clustered into 31 units for the purposes of the *Situational Analysis* (Macfadyen and Papworth 2002).

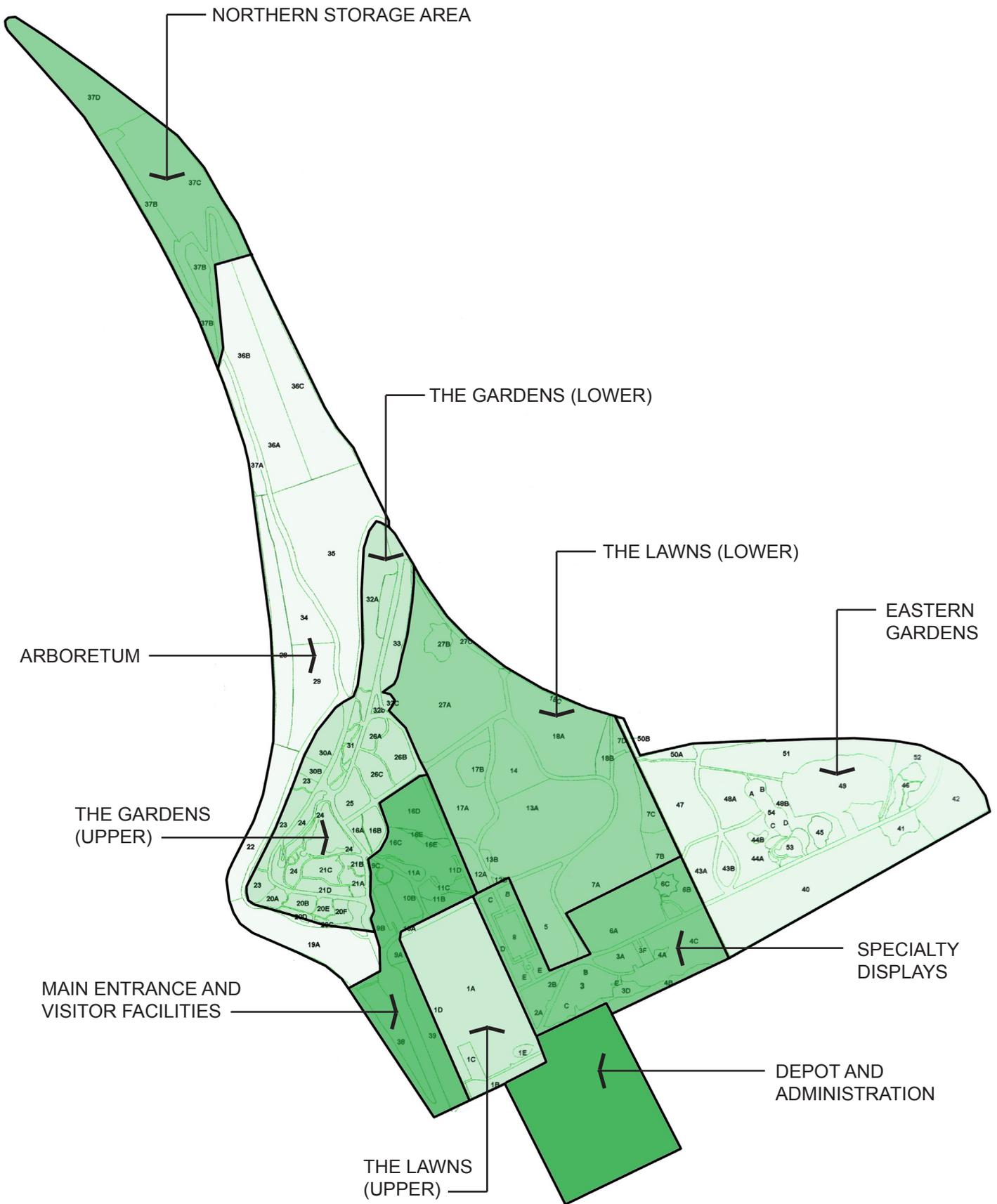
A Staff workshop during the current project, identified precincts within the Gardens as shown on Map 1.2. Brief descriptions of the precincts are given below with the relevant Gardens 'section' numbers listed in brackets. Asset Register references (Appendices C-D) are also shown for specific elements. More detail for each precinct is provided in Appendix B.

Main Entrance and Visitor Facilities (Sections 38, 39, 9-11 and 16)
– This area is in effect the front door to the Gardens. It includes the main car park (P10), the historic front entry gates (B35), the Friends Cottage (formerly the Gatekeepers House) (B5), the Visitor Centre (B1) and Restaurant (B3). This area is highly utilised. An exceptional standard of maintenance is required.

The Gardens – The Gardens Precinct is in two parts, upper (Sections 20, 21, 23 and 24) and lower (Sections 16, 25, 26, 30-33). The Upper Gardens are centred on the Lily Pond (P34) and includes the Fernery (B29) and is one of the key focal areas in the Gardens. An exceptional level of maintenance is required in this area. The Lower Gardens include the Tasmanian Section (P35), the Terraces (P39), and the Australian and New Zealand Collections (P23). The lower gardens do not attract a high level of visitation. A moderate standard of presentation is required.

Specialty Displays (Sections 2-4, 6 and 8) – This area incorporates a variety of spaces dedicated to specialty displays including the Easy Access Garden (P6), Pete's Patch (P11), the Conservatory (P15, B22), the Fuchsia House (B24) and Cactus House (B23). These features attract general interest and specialist use. A high standard of presentation is required.





MAP 1.2. PRECINCTS WITHIN GARDENS

The Upper and Lower Lawns– This precinct is in two parts, an upper (Section 1) and lower portion (Sections 5, 7 and 12-14 17, 18 and 27). The Lawns are representative of the ‘gardenesque’ style of landscaping with sweeping grassed areas and specimen tree plantings. The Upper Lawns are bounded on the west by the historic Arthur Wall (B33). The Lower Lawns include the Playground (P38), an area reclaimed from the river c1870 when the railway was built. These areas have important social uses, particularly by families. A high standard of presentation is required.

Arboretum (Sections 19, 22, 28, 29, 34-37a) – this area includes much of the western boundary of the Gardens below Lower Domain Road. It includes extensive mature tree plantings including collections of conifers. This area does not attract high levels of visitation. A moderate standard of presentation is required.

The Eastern Gardens (Sections 40-52) – This area of land is roughly 2.2 hectares in size and was added to the Gardens in 1964. It is bounded on the west by the historic Eardley Wilmot Wall (B34) and includes the French Memorial Fountain Garden (P9) and the Japanese Garden (P8). This area is well used, the Japanese Garden being a particularly popular area. A high standard of presentation is required.

Northern Storage (Section 37b-d) and Depot and Administration Areas (no section numbers assigned) – These areas comprise the working heart of the Gardens and include the Administration Building (formerly the Superintendents Cottage) (B21), bulk storage areas, nursery facilities, staff amenities and administrative work areas. A basic level of presentation is required. High levels of OH&S management, however, are important.

At a more detailed level, the Gardens’ built features and infrastructure include:

over 30 built features, most of which have operational uses (e.g. nursery purposes or administration) but some of which have substantive public roles for presentation (e.g. the Sub-Antarctic House, Fernery, Fuchsia House and Conservatory), education (the Visitor Centre and the Training Room), community use (Friends Cottage,) or amenity (various public toilets, shelters and the restaurant);



a small number of significant historic features including the Friends Cottage, the Administration Building, the Arthur Wall, the Eardley Wilmot Wall, the Main Entry Gates and the Anniversary Arch;

an extensive network of roads and paths of some 4km in length (Macfadyen and Papworth 2002) comprised mainly of bitumen or concrete interlocking pavers with concrete or sandstone edging but including numerous garden paths of stone, gravel and/or concrete;

a variety of miscellaneous elements including some:

73 signs (feature, directional and/or interpretation but excluding plant labels);

86 seats of a variety of types;

109 surface stormwater features which link to some 617 metres of underground reticulation (the latter estimation comes from the Asset Valuation Register (Davis Langdon 2001));

an irrigation and watering system of some 812 parts with 1250 metres of reticulation (Davis Langdon 2001);

2934 metres of retaining and gardens walls of various materials and heights (Davis Langdon 2001);

2570 metres of perimeter fencing;

other major infrastructure including mains water, sewer (1500m of reticulation including a rising main - Davis Langdon 2001) and communications cabling;

a host of garden ornaments including decorative sculptures, fountains, pools and waterfalls, pergolas, sundials and bird baths; and

numerous sundry items such as light fixtures, handrails, pumps, fire hydrants, bollards, tables, chairs, picnic tables, storage and compost bins, etc.

The asset of the Gardens also includes a range of movable items (plant, equipment, computers and accessories and vehicles) (see Section 1.4.4).



The Gardens as a whole has considerable heritage value. This value is in part due to the presence of built features of historic significance, historical archaeological potential and the known presence of Aboriginal sites (and likely presence of other sites). Importantly, significance is also attached to the plant collections and the social and aesthetic significance of the place (see Sections 2.2 and 2.3).

On the whole the built assets of the Gardens are in very good condition – the facility generally presents well to the public, there are few risk hazards and limited concerns for OH&S. Assuming appropriate funding is available, catch-up maintenance and cyclical maintenance will address the concerns that are identified in this report.

1.2 SCOPE OF THE SCAMP

In summary, the expected outcomes of the SCAMP as set out in the Brief (Brief Section 1.4) are:

- a clear management and implementation strategy;
- a strategic analysis of the already prepared asset register;
- a ranking of asset maintenance priority according to OH&S, statutory, public risk and conservation criteria; and
- an identification of the cultural heritage elements of the RTBG and a conservation policy for such.

The Brief also includes a cursory table of contents listing the topics that are to be covered in the SCAMP. The preliminary list has been used as the basis for the structure of the current study, although not in the same sequence as set out in the Brief.

It is intended that the SCAMP will be regularly updated and subject to a major review in 5 years.

1.3 GOVERNANCE OF THE RTBG

The RTBG is a statutory authority, established under the *Royal Tasmanian Botanical Gardens Act 2002*. The *Act* makes provision for the management conservation and enhancement of the Gardens, replacing the *Botanical Gardens Act 1950*. The Gardens operate within the Tasmanian State Government's Department of Tourism, Parks, Heritage and the Arts (DTPHA). The RTBG is managed by a Board which appoints a Director to administer the Gardens on a day to day basis.



New development within the Gardens is subject to the objectives of the *Resource Management and Planning System of Tasmania* and specifically to the conditions of the *Land Use Planning and Approvals Act 1993* and the *City of Hobart Planning Scheme* (the Planning Scheme). The RTBG is within the Recreation Zone of the *Planning Scheme*. Objectives of the Recreation Zone include the provision of facilities for “passive and visual recreation and enjoyment of residents, workforce and visitors to Hobart”. The activities and facilities of the RTBG are appropriate to this objective.

Other significant legislation affecting the development of new assets and/or the management of existing built assets of the Gardens includes the:

Environmental Protection and Biodiversity (EPBC) Act 1999;

Australian Heritage Commission Act 1975:

Historic Cultural Heritage Act 1995;

Aboriginal Relics Act 1975;

Threatened Species Protection Act 1995; and

Crown Lands Act.

The Gardens is listed in all authoritative heritage registers (e.g. the Register of the National Estate, the Tasmanian Heritage Register and the National Trust Classified List). This places certain obligations on management to ensure compliance⁴.

The *Australian Heritage Commission Act 1975* and the Register of the National Estate⁵ are currently operating in parallel with the *EPBC Act 1999*. Listing on the Register of the National Estate currently gives some protection to a place under Section 30 of the *Australian Heritage Commission Act 1975*. Section 30 (1&2), however, only binds the Federal Government and therefore has no authority with respect to the cultural heritage of Tasmania, except where it is affected by Federally controlled actions, that is in the expenditure of Federal funds. In such instances, Federal Government Ministers are encouraged to ensure that organisations for which they are responsible ‘do not take any action that adversely affects a place that is in the Register unless satisfied that there is no feasible or prudent alternative, and that all measures that can be reasonably taken to minimise the adverse effect will be taken’. It is understood that certain Commonwealth matters may trigger both Acts as the RNE is now serving as an explicit trigger for Commonwealth actions under s28 of the *EPBC Act*.

⁴ The following discussion of legislation is a summary only. Client obligations should be confirmed with the administering agency and, where necessary, through specialist legal opinion.

⁵ Which comprises an inventory of those places in the historic environment that should be preserved for future generations on the basis of aesthetic, historic, scientific or social grounds.



In terms of State legislation, s32 (1) of the *Historic Cultural Heritage Act 1995* states that a person must not carry out any works in relation to a registered place or a place within a heritage area which may affect the historical cultural significance of the place unless the works are approved by the Heritage Council. There is provision for applications for approval to be lodged with the relevant planning authority (in this case the Hobart City Council).

The National Trust maintains a Register of classified and Recorded Buildings, Places and Objects. The Classified List consists of those parts of the physical environment which contribute significantly to the heritage of Australia and should be preserved. Listings in themselves have no legal force. The Trust does, however, encourage owners of listed places to respect their heritage significance.

Whilst not binding, the following documents give guidance as to the mechanisms for appropriate management of the Gardens including the:

Australian ICOMOS Charter for the Conservation of Places of Cultural Significance (the Burra Charter, 1999);

Australian Natural Heritage Charter; and

Queens Domain Cultural Heritage Plan 1999-2002 (Austral Archaeology, Davies and Sheridan in press).

The RTBG also has significant nature conservation responsibilities in relation to the *Tasmanian Nature Conservation Strategy* and the *National Strategy for the Conservation of Australia's Biological Diversity 1996*. At an international level, the RTBG supports the aims of the *Botanic Gardens Conservation Strategy 1989* (as endorsed by IUCN, WWF, FAO, UNEP, and UNESCO), the *International Agenda for Botanic Gardens in Conservation 2000* and the Botanical Gardens Conservation International (the BGCI)⁶. The RTBG is also a member of the Australian Network for Plant Conservation.

Whilst the requirements in relation to these agendas focus largely on the living collections, the management of the Garden's significant heritage attributes is an important task and any new development that occurs should be undertaken in cognizance of their requirements.

⁶ The BGCI is a cooperative global network for effective plant conservation.



1.4 PREVIOUS AND CURRENT STUDIES

Three studies have particular relevance to the current report: the *Strategic Plan 2003-2007*, the *Asset Valuation Register* and the *Situational Analysis*.

1.4.1 *Strategic Plan*

The Royal Tasmanian Botanical Gardens Board has recently completed a *Strategic Plan 2003-2007* (RTBG 2003). The Strategic Plan cites the mission of the Gardens

“To be internationally recognised as a centre of excellence in southern hemisphere cool climate plants, and to enrich Tasmania’s social and cultural environment (RTBG 2003:3).”

The *Strategic Plan 2003-2007* defines the mission of Gardens as being:

“To manage, conserve and enhance the Royal Tasmanian Botanical Gardens by delivering sustainable and relevant programs in plant collections and displays, tourism and recreation, cultural heritage, research, and learning for Tasmania and the broader community (RTBG 2003:3).”

Eight goals are identified in the *Strategic Plan 2003-2007*:

1. To ensure the RTBG is internationally recognised for
 - southern hemisphere cool climate plants;
 - cultural landscapes;
 - Aboriginal and European heritage
2. To achieve excellence in horticultural and botanical education, research, training and extension programs
3. To communicate the relevance and importance of the RTBG, its programs, people and context through meaningful and valued interpretation
4. To be a recognised deliverer of quality programs, products and services
5. To be a community leader in sustainable environmental programs
6. To deliver innovative, proactive and sustainable business practices to support and enhance RTBG programs and resourcing



7. To reposition as one of the top Tasmanian attractions in terms of number of visits and levels of awareness
8. To provide a safe and enriching work and social environment for staff, stakeholders and visitors (RTBG 2003:12)

Of these goals, Goal 1 specifically addresses, the SCAMP indicating its critical role in effectively managing the assets of the Gardens, citing

“protection and conservation of the Gardens’ cultural landscape and Aboriginal and European cultural heritage as a showcase for visitors” with new development being sympathetic to these values; and

“well maintained and presented Gardens assets that meet their intended purpose in a safe and functional way” (RTBG 2003:13);

as key outcomes of the Strategic Plan.

These outcomes are to be achieved by managing, enhancing and developing Aboriginal and European cultural heritage in the Gardens (Strategy 1.3) by:

developing collaborative working relationships with Aboriginal and European cultural heritage groups (Strategy 1.3.1);

implementing the recommended actions of the SCAMP (Strategy 1.3.2);

preparing and implementing specific management plans including maintenance and enhancements for all key heritage elements (Strategy 1.3.3); and

preparing and implementing specific management and operational plans including maintenance and enhancement for all assets (Strategy 1.3.4).

As previously noted, Strategy 1.3.1 lists implementation of the SCAMP as being a key action to be undertaken in the short to medium time frame. The SCAMP is also relevant to other key outcomes identified by the *Strategic Plan 2003-2007* including, amongst others:

enhanced infrastructure and facilities designed for new visitors (Goal 7);

providing a safe place to visit and work (Goal 8); and



recognition of the RTBG as a place for use by the whole community (Goal 8).

1.4.2 *Asset Valuation Register*

An *Asset Valuation Register* has recently been completed for the built fabric of the Gardens (Davis Langdon 2002). The *Asset Valuation Register* represents the first attempt to comprehensively document the value and assets of the Gardens in terms of the extent and quantity of various materials/feature and their replacement value. The *Asset Valuation Register* also included estimates for a cyclical maintenance program.

For the purposes of the current report, the *Asset Valuation Register* has provided useful, first order information on which to build a more detailed SCAMP.

In particular, the current study has expanded on the *Asset Valuation Register* in that it:

has given specific alphanumeric identifiers to buildings, major features, heritage items and the system of paths within the Gardens where the numbering system of the *Asset Valuation Register* has assigned a generic number based on the type of element;

has looked at the above ground built assets in greater detail and more precisely and includes some additional items which were over-looked by the *Asset Valuation Register*; and

more clearly separates cyclical maintenance items from catch-up maintenance items.

By comparison, the current study has made no estimation or assessment of the elements of the irrigation system or underground elements of the stormwater system as was done in the *Asset Valuation Register*. Whilst the treatment of these items is speculative (e.g. based on staff experience and informed guess as to the nature of sub-surface elements), they provide an order of estimation that is useful in the absence of any other data. The proposed Water Audit (see Section 3.5) and the proposed Features Survey (see Section 3.3) will be of benefit to any future update of the *Asset Valuation Register* in relation to the sub-surface components of the stormwater and irrigation system.

The replacement value put on items within the *Asset Valuation Register* is assumed to be correct. Information was provided regarding 'useful life' of the various assets was also included.



Items in the *Asset Valuation Register* have been referenced (AVR xxx) throughout the data sheets created for this report.

1.4.3 *Situational Analysis*

A *Situational Analysis* of the cultural landscape of the Gardens has been prepared (Macfadyen and Papworth 2002). The purpose of the *Situational Analysis* was to collate information about and review the status of the living collections within the RTBG and their associated infrastructure (as at July 2002). The *Situational Analysis* provides a summary of the historical evolution of the site, the built landscape, thematics and collections in terms of their presentation, effectiveness and future development as well as an overview of the physical geography and the general health of the plant collections.

The *Situational Analysis* contains an overview of the description of the roads and pathways, fences and irrigation system and their condition. The current study provides specific detail as to the condition of the roads, pathways and fences. The proposed Water Audit will benefit from the information contained in the *Situational Analysis* (and the *Asset Valuation Register*) regarding the irrigation system.

The *Situational Analysis* has also provided useful background regarding the history of the site and the elements within it. The Situation Analysis was also used as a checklist to ensure the comprehensiveness of the Asset Registers in Appendices C-D.

1.4.4 *Plant and Equipment Register*

The RTBG utilise an extensive range of plant and equipment to enable it to undertake its core business. The plant and equipment is either managed under lease (four vehicles and its IT system) or owned by the RTBG.

The RTBG have prepared a *Plant and Equipment Register* that describes these various 'movable' assets of the Gardens. The register includes plant and equipment, computers and accessories and vehicles and provides relevant background regarding the nature of the nature of the equipment and its purchase price. Each item is also given an Inventory Number for easy reference.

For the purposes of the SCAMP only those items valued in excess of \$2000 have been considered; items of a lesser value typically being dealt with as part of recurrent budgets.

Appendix J shows those items considered by the SCAMP and that have been included in the Catch-Up Maintenance Plan (Chapter 4).



The *Plant and Equipment Register* requires regular updating if it is to be a useful document.

1.4 THE STRUCTURE OF THE REPORT

The current report is in five parts:

this introduction, Chapter 1, which outlines the background to the report and the structure and methods used in developing it;

Chapter 2 which describes the cultural importance of the Gardens as it has been assessed by the current study;

Chapter 3 which discusses a number of strategic concerns raised by the current study regarding the assets of the Gardens;

Chapter 4 which describes the main findings of the catch-up and cyclical maintenance plans; and

Chapter 5 which outlines a number of matters which were raised during the current study regarding future development options but were outside the scope of works.

Throughout the current study, previous studies are referred to in an abbreviated form (Author, date of publication and page number in the publication if works are directly quoted) with references listed in full in the Bibliography.

The report is supported by a number of appendices as listed in the Table of Contents.

1.5 METHODS

The various buildings, features, paths, etc. of the Gardens were visually inspected by the Consultants over a period of several weeks in November 2002. Data from the inspection has been compiled in an Asset Register (Appendix C – Buildings and Features and Appendix D – Paths and Areas) which detail 40+ buildings and major features and the Garden's path network which has been sub-divided into 41 paths/areas. In each case, various elements are assessed from a conservation, risk management and maintenance perspective.

Aboriginal and historic heritage (including archaeological) assessments have been undertaken. In each case, the assessments have relied on previously published information and no new research has been done.



The assessments and recommendations are cognizant of the key benchmarks for best practice (i.e. the *Australia ICOMOS Burra Charter*, the *Australian Natural Heritage Charter*, relevant legislation and JS Kerr's *Conservation Plan*) but only so far as it applies to strategic management of the Gardens' assets. It is expected that the Strategic Master Plan will contain a full analysis of the history of the Gardens, therefore this SCAMP has only addressed the history in enough detail for an appraisal of the conservation significance of the site at a strategic level. The cultural heritage portions of this report (e.g. the statement of significance, conservation guidelines, archaeological zoning plan and conservation assessments of various elements), therefore, do not purport to meet the standard of a comprehensive Conservation Management Plan (CMP), nor does the conduct of this project obviate the need for a CMP as will be discussed in Section 3.2

The SCAMP also sets out to meet the demands of modern usage and attendant safety and maintenance standards and, therefore, the site has been subject to a safety audit as part of the project. The methods used in assessing safety and risk are set out in the Risk Assessment attached as Appendix E

The Catch-Up Management Plan and the Cyclical Management Plan (Appendix F) have been compiled from data collected as part of the development of the Asset Register. Assessment of priority was based on a hierarchy of needs developed for the current project as set out in Section 4.1. Cost estimations have been made using standard quantity surveying practices and are based on current rates. Quantities were measured in the field and on the desk top.

The SCAMP has been prepared by Inspiring Place Pty Ltd (Environmental, Tourism and Recreation Planners and Landscape Architects), Mary Knaggs (Conservation Architect), David Parham (Archaeologist, Austral Archaeology), Colin Hughes (Aboriginal Heritage Officer), Harry Whiteside (Risk Analyst, Logov Consulting) and Dick Bryden, Quantity Surveyor.

The Consultants have worked in conjunction with a Steering Committee consisting of Jim Cane (RTBG), Brendan Lennard (Hobart City Council), Deidre Wilson (DPIWE) and Jo Lyngcoln (Tasmanian Heritage Office).

The project has also been informed through the input of staff and stakeholders in separate workshops. Further consultation with both groups with regards to the findings of the SCAMP is intended as part of the on-going use and revision of the document.



CHAPTER 2

ASSESSMENT OF CULTURAL SIGNIFICANCE

2.1 A CURSORY HISTORY OF THE RTBG

The brief for this SCAMP required only that the history of the site be addressed in enough detail for an honest appraisal at strategic level. Table 2.1 sets out the key dates associated with the development of the Gardens and its features. Table 2.1 has integrated information from a variety of sources including the *Situational Analysis* (Macfadyen and Papworth) and Parts One and Two of the *Queens Domain Cultural Heritage Management Plan* (Austral Archaeology, Sheridan & Terry, 1999⁷). It is understood that the Strategic Master Plan will contain a full analysis of the history of the Gardens.

Date	Comment
pre 1806	There is evidence of widespread and lengthy occupation of the Gardens and their surrounds by Aboriginal people in the form of known Aboriginal sites.
1806 - 1813	50 acres of bushland at Pavilion Point granted to John Hangan, convict. Soon cleared and planted and known as Hangan's Farm, its initial aim was to supply Government House with produce. Pavilion Point originally known as Hangan's Point.
1811	Governor Macquarie's visit to Hobart initiates the formation of the Government Domain through acquisition of former land grants.
1813 - 1818	Hangan sells to Loane, but sale not approved by Government and the land is resumed by Governor Sorell.
1818	Government or Colonial Gardens established. Second oldest Botanical Gardens in Australia. Mr J B Faber appointed as overseer at a salary of 5 pounds per quarter.
1819	The Government Domain had been fenced (Austral Archaeology and Terry 1999:9).
1827	Governor Arthur seeks to have Gardens developed on scientific lines and coins the term 'botanical' gardens.
1828 - 1834	William Davidson, English horticulturalist, aged 23, appointed Gardens' first superintendent by Gov. Arthur. Salary of 100 pounds per year. Davidson brought 2000 fruit trees and vines from England and ordered large quantities of seed and trees. Over 130 native species collected from the slopes of Mt Wellington were also cultivated during Davidson's tenure.
1829	Arthur Wall built to form SE boundary to Gov. Arthur's instructions. Wall is heated for the growing of espalier stone fruit trees. Also glasshouse attached to heated wall used by Davidson for growing pineapples. Wall contains the main entrance at eastern end, entry by summoning attendant with a bell.
1832	Gov. Arthur directed that the RTBG be closed on Sundays because the Superintendent had represented 'the extreme inconvenience and injury

⁷ For a brief history of the RTBG in prose refer to Section 5.2 in Part One *Historical Overview of Queens Domain, Hobart*. For a more detailed analysis of the cultural landscape of the RTBG refer Section 4 in Part Two *Historical Landscape of Queens Domain, Hobart*. See also McFie, 2002.

Date	Comment
	which arises from the great number of persons who resort there on the Sundays'.
1833	Superintendent's House and outbuildings built (now Admin. Building). Construction could have commenced as early as 1829.
1835	Plan of Domain Lands shows 'Government Gardens' in current location.
1840s	Rosbank Observatory established in Government House grounds immediately to the SE of the Gardens. RTBG supplies "much of the stock" for the gardens and orchards at Port Arthur (Clark and Viney 2002)
1840-43	Foundation stone for Government House laid. Site had been fixed as early as 1820s following visit by Gov. Macquarie and Land Commissioner's findings, but went through several proposals for alternative sites. Work to a design by Blackburn discontinued in 1843.
1843-46	Eardley Wilmot Wall built to form Eastern Boundary of the Gardens (formed wall to Government House vegetable gardens. Originally 230 metres long. Controversy existed in relation to the use of public funds and convict labour. It was felt resources could have been better put towards more extensive road and bridge construction.
1844	The Royal Society of Van Diemen's Land for Horticulture, Botany and the Advancement of Science was formed by Governor Eardley Wilmot. The Society undertook the management of the Gardens and a grant of £400 per year was provided.
1845	Sandstone 3-roomed Overseer's Cottage built near new entrance (now Friend's Cottage). Stone came from nearby Government House quarry cost was double estimate of 63 pounds. Housed overseer John Hicks who paid 15 shillings rent for it. Extended in the early 20 th century for tearooms and then offices, conservation work was carried out in 1999, including reconstruction of the front porch. Now serves as a museum run by the Friends of the RTBG.
1848	The Royal Society of Van Diemen's Land for Horticulture, Botany and the Advancement of Science amalgamated with the Tasmanian Society to form the Royal Society of Tasmania which continued responsibility for the management of the Gardens.
1848	Dam is formed on site of present Lily Pond to collect water for irrigation. Prior to this water carted by bullock wagon from the Hobart Rivulet. Dam originally stocked with 18 tench brought from UK.
1856	Map of Gardens and Government House attributed to William Porden Kay
1857	A catalogue of plants growing at the Gardens was produced. This is updated annually. RTBG supplies "dahlia, anemone, ranuncula, etc." to Commandant Booth at Port Arthur for the gardens there (MacFie 1983).
1858	Government House occupied. Design of house and gardens by William Porden Kay. Parts of the current RTBG were incorporated by Kay into the setting of Government House (Austral Archaeology and Sheridan 1999:135).
1864	RTBG supplies 400 new plants to Commandant Boyd at Port Arthur for the gardens there.
1865 - 66	In the Annual Report of the Royal Society of 1865 thanks were expressed to the government for the help of prison labour and the following year the Pinetum bordering Lower Domain Road was planted out with the aid of this additional labour.
1873 - 76	A railway cutting was made through the Gardens and the line completed in March 1876 with the opening of the Botanical Gardens Station. This suburban service was closed in 1974.
1876	Cast iron main entrance gates erected having been made in UK and imported especially for the Gardens. At his time annual grant for upkeep of



Date	Comment
	Gardens is 400 pounds.
1885	The administration by the Royal Society ended with the passing of the <i>Tasmanian Museum and Botanical Gardens Act 1885</i> .
Late 1880s +	Gardens take on more of a 'Gardenesque' Victorian Park style. Gardens responsible for distribution of plants within the Colony and the exportation of material overseas including Norfolk Pine and tree ferns. Many exotic trees in public parks, schools and cemeteries were supplied by the Gardens including those on the Queens Domain, Franklin Square and the Salmon Ponds.
1891	Sandstone quarry near Government House leveled and filled, partly using prison labour, but at the same time another quarry opened up in Park Road.
1912	The botanical section of the Tasmanian Museum was transferred to the Gardens including the herbarium collection.
1917	Approximately 2.5 acres of land formerly attached to Government House as part of a kitchen garden was prepared for the reception of Australian Native Plants (this is the area now occupied by the Cactus House).
1917	Alterations made to the Superintendent's House (now Administration Office B21) and the Caretaker's Cottage.
1928	Leonard Rodway was appointed Director and a Tasmanian herbarium set up at the Gardens under his direction until his retirement in 1932. The collection was housed in the Botany Department of the University of Tasmania from 1946 but remained under the control of the Gardens until 1977 when management was given to the Tasmanian Museum and Art Gallery.
1933	First Herb Garden established?
1939	Conservatory built. Designed by Superintendent IV Thornicroft and constructed in 1939 from stone salvaged from the Hobart General Hospital.
1943	A pontoon bridge was completed from Pavilion Point to the eastern shore and the construction of the Domain Highway resulted in the loss of a portion of the Gardens. The Gardens still hold tenure to 0.41 Ha of foreshore land.
1948-1949	Construction of the Australian Newsprint Mills (ANM) Storage Shed and Jetty constructed at Pavilion Point disrupting views to and from the RTBG. By 1968 the Shed was doubled in size. The Shed was demolished in 1996 after ANM's operations at the site ceased and the land was returned to the Government.
1950	The <i>Botanical Gardens Act 1950</i> resulted in administration of the Gardens and the Museum being separated and the appointment of a Board of Trustees for each organisation.
1954	Tearooms built using in-house labour.
1958	Fuchsia house built (re-landscaped 1985).
1960's	Fernery built.
1964	2.2 hectares east of Eardley Wilmot Wall granted to Gardens from Government House. This is the area where the French Memorial Fountain and the Japanese Garden are now situated.
1967	Queen Elizabeth II grants permission for the Gardens to use the prefix 'Royal'.
1968	Floral clock constructed by cadets at the former Science Centre of the Education Department. Clock is electronically controlled.
1968	Archway relocated from AMP building in Elizabeth St, Hobart. First constructed 1919, the carving is the work of Amos Vimpany. Donated by AMP the arch carving was reworked to show the RTBG's founding and 150 th anniversary years.
1970's	Aviaries removed and cockatoo cage rebuilt in northern section.
1971	Tropical Glasshouse opened. Demolished in 1995 (area of current Pete's Vegie Patch).
1972	French Memorial Fountain constructed. The sculpture 'Antipodean Voyage' in Huon pine by Stephen Walker commemorates the 200 th anniversary of



Date	Comment
	French exploration in Tasmanian waters.
1974 - 75	RED Employment scheme, building of terraces, rockeries and re-construction of Fern House interior.
1978	Establishment of the Gardens Museum & Education Service.
1978	Establishment of Volunteer Museum staff.
1979	Gazebo built.
1980	The Pavilion 'Wombat One' shelter built.
1981-85	Easy Access Garden established. Idea suggested by Tammy Fraser, wife of the former Prime Minister during 1981 the International Year of the Disabled. Establishment of Horticultural Therapy unit.
1981	Syme Memorial Fountain relocated from outside the Tasmanian Tourist Bureau to east side of Conservatory.
1981	Native Plant and Fern Rockery.
1983	Establishment of plant records section.
1984	New corporate image for Gardens launched.
1984	C E P Scheme project to build rhododendron and native terraces near AMP Archway.
1984	Erica/Conifer, Herb and Protea Gardens and Cactus House completed.
1984	Annual Tulip Festival commences to celebrate Spring.
1985 - 87	Japanese Garden built and opened. Garden parallels an Australian garden built in Yaizu, Hobart's sister city. Garden features many types of rock from all parts of Tasmania. Water wheel is of Huon pine with no metal parts.
1987 - 91	Development of Technical Support Services Support Centre and northern storage area.
1989	Establishment of Volunteer Guides Group
1990 - 91	Construction of A P May Memorial native plant garden heralding change of focus towards plant conservation. Followed soon afterwards with the construction of the Tasmanian Epacridaceae Section.
1990	Establishment of Friends of RTBG Inc.
1990	Instigation of Blue Gum Council (Corporate Sponsorship).
1991 - 92	Installation of new water reticulation and automatic irrigation schemes.
1991 - 92	Design and construction of lower car park fence and entrance.
1990/91	Establishment of endangered plants Recovery Committee.
1993	175th Anniversary of Gardens.
1999	The opening of the Visitor Centre occurred in March. The building, joined to the original Tea Rooms, houses a Resource Centre below.
2000	The prototype Australian Antarctic Foundation Sub Antarctic Plant House was officially opened in October to house a collection of Macquarie and Heard Island plants.
2002	<i>Royal Tasmanian Botanical Gardens Act 2002</i> enacted.

Table 2.1 Key Dates in the Development of the RTBG



2.2 ABORIGINAL AND ARCHAEOLOGICAL VALUES

2.2.1 Aboriginal Values

The area of the Derwent River around the Gardens was inhabited by Aboriginal people of the Mouheneenner band of the South East Tribe at the time of European colonisation (Ryan 1981).

An Aboriginal Cultural Heritage Assessment was prepared as part of the current study (Appendix G).

The Aboriginal Heritage Assessment noted that a number of Aboriginal sites are known from the Gardens and are listed in the Tasmanian Aboriginal Site Index. Most of the known sites are middens containing a mixture of different shellfish remains and some contain tools. Together these sites indicate that the area of the Gardens was extensively used and that rather than the recorded areas being individual sites, they represent one large site containing a number of occupancy areas. -

The density of the known sites and those that are likely to occur indicates that the Gardens and surrounding areas were an integral part of Aboriginal people's daily cultural activities and were extensively used prior to European colonisation.

In summary, the site has powerful reminders for the contemporary Aboriginal community in the visibility of the middens, which remain. These middens tell stories of travels and living patterns making them an important piece of Aboriginal people's past and a significant part of their future as they hold stories to be passed onto their children.

The whole of the Gardens, therefore, is sensitive from an Aboriginal cultural heritage point of view.

2.2.2 Archaeological Values

An Archaeological Zoning Plan has been prepared as part of the current study and is attached as Appendix H.

The purpose of the plan was to identify those areas of the Gardens that are, or may be of historical archaeological importance. Zones of sensitivity have been defined where the potential exists for survival of archaeological deposits related to significant development within the Gardens. Generally these zones occur where:

the nature, form and extent of development is not adequately understood from existing records; and/or



where surviving archaeological evidence may contribute to an enhanced understanding of the site in question and/or the amenity value of the Gardens.

One of the central considerations of any assessment of archaeological sensitivity is the disturbance history of the subject area. In the current study, comprehensive disturbance histories have not been compiled owing to the lack of a detailed history of the Gardens. It is, however, apparent from even the most cursory appraisal of the key plans (presented in Appendix H) that the form and extent of the RTBG has changed over time. Paths have moved with changes in spatial layouts and a range of structures (from substantial buildings such as the fernery near the lily pond to rustic shelters) have come and gone.

On the face of it this would suggest that enormous scope exists for low level remains of archaeological features to have survived 'in-situ'. Certainly selected evidence of earlier paths has survived in the form of subtle breaks in slope although these are detectable only in lawn. The over-riding factor is that much of the early part of the RTBG landscape has been extensively cultivated to an average depth of 300mm.⁸ In places there has also been cutting, filling and construction of new buildings. This means that, in many instances subtle features such as evidence of paths will have been turned into garden beds, and that remains of rustic shelter sheds will have no meaningful archaeological signature. This substantially reduces the area of archaeological potential, particularly when best practice criteria are applied.

The Archaeological Zoning Plan (Map 2.2) shows that zones with archaeological potential encompass:

- The full extent of the Arthur Wall. The extant wall contains design attributes (i.e., an internal heating system) that are of high heritage (including historical archaeological) significance. There is also an outstanding question as to whether part of the wall was removed c1845 to make way for construction of the Gate House (now the Friends Cottage);

⁸ Jim Cane, pers. comm. 12/12/02.



- Selected areas on the western side of the Arthur Wall. A plan of 1856 shows a series of unidentified rectangular structures aligned parallel to that side of the wall (see Illustration 2 in Appendix H). Historical descriptions also refer to a structure which straddled the wall. The eastern part of the building was a substantial hot house measuring 50' x 15' (see Illustration 5 in Appendix H) and the western section was a shed measuring 50' x 17'.⁹ The 1856 plan also shows a rectangular structure with its long axis aligned from east to west connected to the wall. This is identified as a “Men’s Quarters”;
- The area south of the Superintendent’s House (now the Admin Office). The earliest plans show a watercourse (channel/aqueduct?) trending towards the southern side of the Superintendent’s House from the quarry that subsequently became a pond in the Government House precinct (see Appendix H). The details, form and function of this feature are unknown. It is presumed to have supplied water for domestic purposes but may have played a dual role with overflow being directed to the gardens¹⁰;
- An area along the northern margin of the Eardley-Wilmot Wall. Although not shown in key plans, a range of structures were located along the northern face of the Eardley-Wilmot wall. Little is known of these structures. A c1878 photo suggests some were glass/hot houses (see Photograph 2.1).¹¹ In 1991 archaeologist Brian Prince conducted an excavation towards the rear of the Easy Access Garden (Prince 1991). This revealed the remains of a structure interpreted as a pre-1850 hot house associated with the Government House vegetable garden.
- Low lying land below (i.e. east of) the Conservatory. Unidentified structures are depicted in the middle distance of the c1878 photograph (see Photograph 2.1). These structures are not marked on any of the key plans and consequently their function remains unsubstantiated within the context of the archaeological assessment.

⁹ Description, reference [CSO 1/292/7139/28] and illustration all supplied by Gwenda Sheridan.

¹⁰ Although this is entirely speculative within the context of this report.

¹¹ TMAG photo [Q492.2] was identified to the Consultants by Gwenda Sheridan.





Photograph 2.1 View to Government House from Royal Tasmanian Botanical Gardens c1878 (Source: Photographic Collection of the Tasmanian Museum and Art Gallery Q 492.2).

Once a thorough history of the site has been completed, the Archaeological Zoning Plan should be reviewed and additional sites added if they meet the criteria set out in Appendix H. The task of reviewing the Archaeological Zoning Plan could be incorporated in the Conservation Management Plan recommended in Section 3.2.

2.3 STATEMENT OF CULTURAL SIGNIFICANCE

2.3.1. Existing Recognition of the Cultural Heritage Value of the RTBG

The RTBG is recognised as a cultural heritage asset under the following:

the Register of the National Estate (*Australian Heritage Commission Act 1975* and the *Environmental Protection and Biodiversity Conservation Act 1999*);

the Tasmanian Heritage Register (*Historic Cultural Heritage Act 1995*);

the *Hobart City Council Planning Scheme*;

the National Trust of Australia (Tasmania) Register; and

the *Queen's Domain Cultural Heritage Management Plan 1999-2002* (Austral Archaeology, Davies, Terry and Sheridan in press).



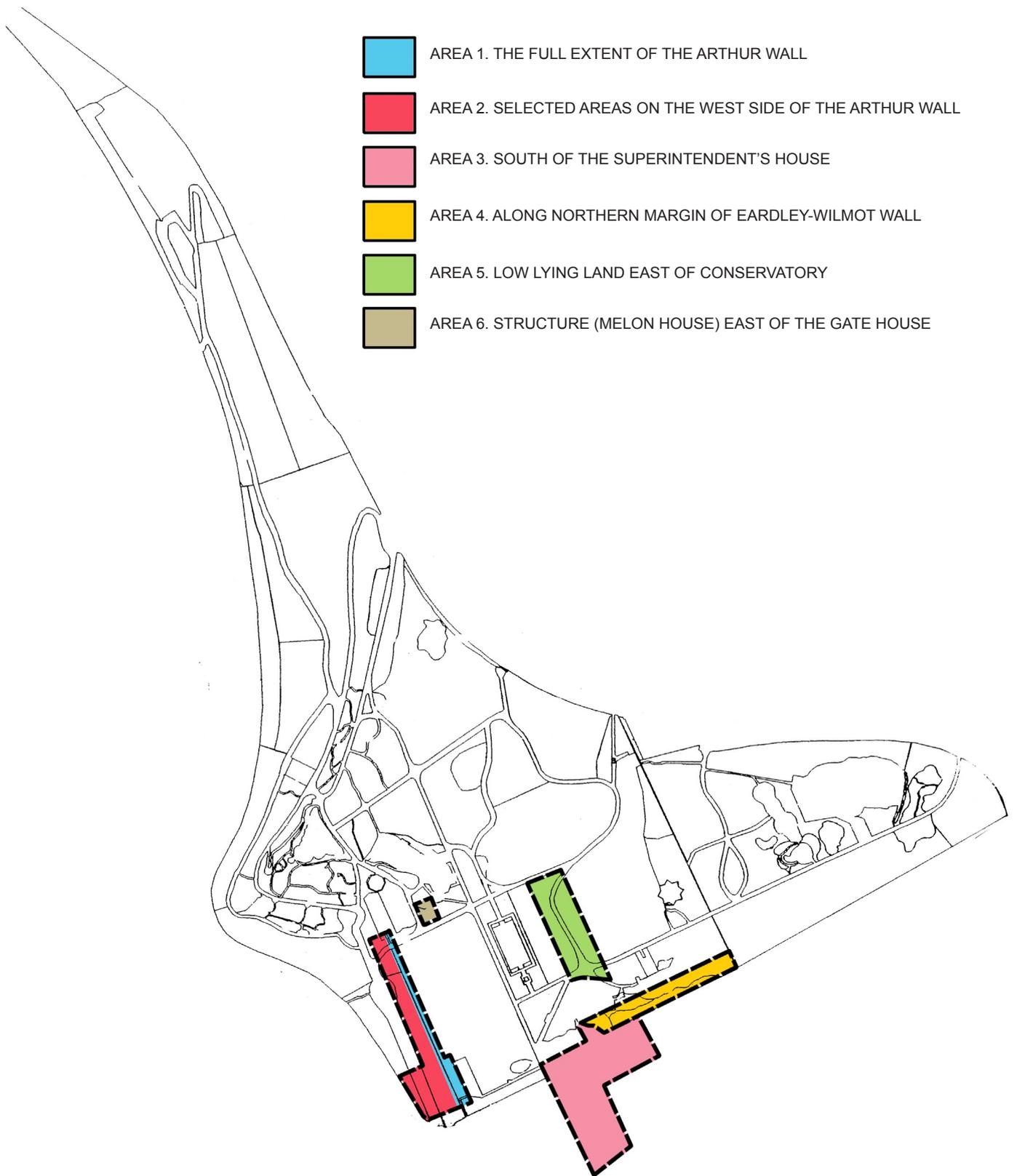


FIGURE 2.2. RTBG ARCHAEOLOGICAL ZONING PLAN

Extracts from some of these documents are included at Appendix I.

2.3.2. A New Cultural Heritage Significance Assessment of the RTBG

The following assessment of significance is framed in terms of the criteria for entry into the Tasmanian Heritage Register¹².

These criteria have been used in preference to those for the Register of the National Estate because the *Historic Cultural Heritage Act 1995* provides statutory protection of the RTBG, while the Register of the National Estate only requires the approval of the Australian Heritage Commission when a project at the RTBG involves substantial Commonwealth funding (see Section 1.3 for further detail).

The new statement is more comprehensive than that contained in the current Tasmanian Heritage Register data sheet.

Tasmanian Heritage Register Criteria

A. IT IS IMPORTANT IN DEMONSTRATING THE EVOLUTION OR PATTERN OF TASMANIA'S HISTORY;

The RTBG is land that was favoured by the Aboriginal people of the Hobart area who belonged to the Mouheneener group (Ryan 1981). The evidence for this is the number of Aboriginal sites known to exist in the RTBG¹³.

The establishment of productive gardens on this site from an early date isolated from the main encampment for reasons of security and hygiene demonstrates the struggle for survival in the fledgling settlement of Hobart Town (Hangan's Farm 1806-1813).

More intensive development of the site as a permanent Government or Botanical Garden from the late 1820s (following establishment in 1818) is indicative of the growing stability of the colonial settlement and its emergence from what was, predominantly a military state. From the 1840s this increasing confidence in the Colony is reflected in the strong development of the Gardens closely allied to the scientific and cultural fashions of the day (e.g. the Arthur Wall and the Eardley Wilmot Wall).

From the 1880s until the interwar period (construction of the Conservatory) the Victorian Gardenesque style of the RTBG was established and reinforced and this remains the dominant aesthetic in the Gardens today.

¹² See www.tasheritage.tas.gov.au

¹³ The *Historic Cultural Heritage Act 1995* specifically excludes sites that are only of Aboriginal cultural heritage value.



The development of plant display areas from the post war period to the 1960s highlight a growing concern for the unique plant collections of the RTBG and their placement in simple contemporary structures and settings (e.g. Fuchsia House, Fernery) and also with the dedication of public servants in ensuring the RTBG remained a strategic entity for Tasmania in the difficult post-war period (developing a scientific approach to the management of the collection, building of the Tea Rooms, models displayed in the Conservatory).

From the 1970s the emphasis has been on strengthening the scientific value of the collection; on creatively displaying and enhancing the particularly Australian and Sub-Antarctic character of parts of the collection and in increasing and celebrating the unique cultural values of the RTBG (e.g. the Japanese Garden, Anniversary Arch and the connection with the Domain).

The RTBG's present day plant collection demonstrates the major botanical collecting and management strategies in Tasmania since the Gardens' establishment in 1818 and in particular the positioning of the existing historic plant collection dating from the mid 1850s and its strong relationship with the Domain.

The RTBG demonstrates how from the late 1800s to the mid 1900s political and economic imperatives could compromise the boundaries and setting of a major cultural institution through the construction of major infrastructure (railways and roadways) and waterfront industry (ANM development).

B. IT DEMONSTRATES RARE, UNCOMMON OR ENDANGERED ASPECTS OF TASMANIA'S HERITAGE;

Developed with the use of Colonial convict labour, the RTBG has a continuing relationship (from c.1865) with the penal system in Tasmania through the rehabilitation of offenders.

The RTBG is a rare example of an extensive and highly developed Victorian era garden in the Tasmanian context.

Historically, physically and aesthetically part of the Queen's Domain, the RTBG contributes strongly to the cultural heritage value of that enclave of landscaped public space in a prominent riverside setting within Tasmania's capital city.

The historic plant collection at the RTBG dating from the mid 1850s, in particular the collection of conifers, the largest in the southern hemisphere with over 60 of the 69 genera of conifers worldwide being represented, is a unique cultural and scientific resource for Tasmania. The RTBG also holds 100 of Tasmania's 400 threatened vascular species.



C. IT HAS POTENTIAL TO YIELD INFORMATION THAT WILL CONTRIBUTE TO AN UNDERSTANDING OF TASMANIA'S HISTORY;

The RTBG retains many extant features and historical archaeological attributes which, together with complementary archival references, have the potential to yield information on the evolution of a major public Botanical Garden over time and its important relationship with the history of Tasmania.

D. IT IS IMPORTANT AS A REPRESENTATIVE IN DEMONSTRATING THE CHARACTERISTICS OF A BROADER CLASS OF CULTURAL PLACES;

Many of the features and historical associations of the RTBG are fine representative examples of a Victorian style public Botanical Garden in a capital city. For example the Gardens supplied seeds and plants for the landscaping of a number of other major Government projects including those on the Queens Domain and Port Arthur, Franklin Square and Salmon Ponds.

E. IT IS IMPORTANT IN DEMONSTRATING A HIGH DEGREE OF TECHNICAL ACHIEVEMENT;

The creative and aesthetic development of the RTBG set within the open space of the Queen's Domain and the Derwent River make it one of the finest Botanical Gardens in Australia. Historically it has strong links with the design of the cultural landscape setting for the adjacent Government Domain and the designs for the Government House and Garden by architect William Porden Kay. The historic tree canopy including over 70 trees recognised on the National Trust's Significant Tree Register is an essential element of this cultural landscape.

The Arthur Wall (c1827) is an internally heated wall intended to assist in the growing of warm climate fruits and vegetables including some in an attached glasshouse. Although a popular device in early 19th century Britain, and not particularly successful in the Tasmanian climate, it is thought to be the only surviving use of this technology in an Australian public garden.

The Pavilion 'Wombat One' demonstrates the late 20th century movement toward an Australian architecture that responds to locality and explores sustainable design and building systems¹⁴.

The amassing of a public botanical collection since the early 19th century, which now form the core of the RTBG's heritage and scientific values, demonstrates a high degree of technical achievement. The RTBG has over 6,000 species and varieties within its collections. Theme based collections include the fully provenanced

¹⁴ The wooden post and beam pavilion, 'Wombat 1', is an award winning design by the Tasmanian School of Environmental Science in 1980, and is listed on the Register of the National Estate.



Tasmanian Epacrids, Greater Hobart, Sub Antarctic and Chinese collections. Other collections are based on a range of themes including taxonomic, economic, cultural and geographical plantings.

F. IT HAS A STRONG OR SPECIAL MEANING FOR ANY GROUP OR COMMUNITY BECAUSE OF SOCIAL, CULTURAL OR SPIRITUAL ASSOCIATIONS;

The RTBG has strong relationship with volunteers who work at the Gardens at least since the 1970s, now formalized in the Friends of the RTBG.

The Tasmanian community, particularly those who live in or near Hobart and are able to regularly visit the Gardens hold the place and the institution in high social and cultural esteem, particularly for its recreational, historical and aesthetic values. In addition those who have been involved with the RTBG through administration (e.g. Board members), work, or research also hold the RTBG's scientific and technical values in high regard.

In more recent times the work of Peter Cundall has endeared the RTBG to many Australians for its horticultural, aesthetic and historical values due to its appearance as a feature in the ABC's Gardening Australia program.

G. IT HAS SPECIAL ASSOCIATION WITH THE LIFE OR WORK OF A PERSON, GROUP OR AN ORGANISATION THAT WAS IMPORTANT IN TASMANIA'S HISTORY.

The RTBG has strong historical and scientific associations with the Royal Society of Tasmania and through these and other associations to the Port Arthur penal settlement (many of the Commandants at Port Arthur were Royal Society members and received stock from the Government Gardens for planting at Port Arthur).

The RTBG as a major cultural institution has had strong links with various Governors including:

Governor Macquarie whose 1811 visit to Van Dieman's Land established a Government Domain and Garden on their present sites.

Governor Arthur who sought to have Gardens developed on scientific lines and coined the term 'botanical' gardens.

Governor Eardley Wilmot whose excessive expenditure on the Eardley Wilmot Wall enclosing the Gardens contributed to his political downfall.



The RTBG has strong associations with its many Directors and other horticultural staff including:

Leonard Rodway who established the Tasmanian Herbarium in the 1920/30s.

Aesthetic Values

The criteria for assessment under the Tasmanian Heritage Register do not specifically mention aesthetic values, although Criteria B, E and F are used by practitioners as a means of addressing this shortcoming. The Register of the National Estate (RNE), however, does recognise these values under its Criterion E – “the importance of a place in exhibiting particular *aesthetic* characteristics valued by a community or cultural group”¹⁵.

Under RNE Criterion E, the aesthetic value of the Gardens can be considered outstanding. The significant aesthetic value of the RTBG derives from:

its overall retention of a ‘gardenesque’ landscape style popular in the 19th century, “the age of the common man, and public enthusiasm for knowledge and information, especially about the botanical world” (Simons 1987:32);

its mature landscape comprised of many advanced specimen trees (many of heritage significance in their own right or as collections of particular types e.g. the conifer collection) set in established shrub and perennial beds and a changing pattern of annual plantings;

the strength of its visual relationship to the Queens Domain (as an element of that enclave of landscaped public space) and more specifically to Government House (especially its strong visual integration when viewed from the Derwent River, the eastern shore or the Tasman Bridge);

its expansive outlook to the Derwent River and distant landscape features in combination with or framed by well designed and maintained foreground elements of beauty in their own right; and

internal views and vignettes of great delight, including water features, plantings of varied colour and texture, stonework, feature elements and/or buildings, etc.

¹⁵ See <http://www.ahc.gov.au/register/furtherinfo/criteria.html> for a full listing of criteria for listing on the Register of the National Estate.



2.4 CONSERVATION POLICIES

The Conservation Policies and Recommendations for the whole of the RTBG as a place of cultural heritage (including archaeological) significance) are set out in Table 2.2. The Conservation Policies and Recommendations should be read in conjunction with the Asset Sheets for individual precincts, built elements, structures, walls, fences and gates (Appendices C-D) and the Archaeological Sensitivity Zoning Plan (Map 2.2, see also Appendix H).

The Policies and Recommendations arise out of the Statement of Cultural Heritage Significance in this SCAMP and from the client and stakeholder consultation that occurred during the preparation of this SCAMP (Section 2.3).

These Policies and Recommendations should be reviewed every five years (i.e. 2007).

NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
1.0	General		
1.1	Conservation Approach Generally	The RTBG is a place of National Cultural Heritage Significance and therefore its cultural heritage values should be conserved in accordance with the <i>Australia ICOMOS Burra Charter 1999</i> .	www.icomos.com.au
1.2	Proposed Strategic Master Plan	The proposed Strategic Master Plan for the RTBG should respect and enhance the cultural heritage significance of the RTBG and the individual precincts and elements within the RTBG. The Master Plan should also include a cohesive long term management framework for the RTBG's significant plant collections.	See the Statement of Cultural Heritage Significance (Section 2.3)
1.3	Catch-Up Maintenance Plan	The Catch-Up Maintenance recommendations arising out of this SCAMP which will improve conservation of the cultural heritage assets should be implemented.	
1.4	Cyclical Maintenance	A program of Cyclical Maintenance arising out of this SCAMP for the cultural heritage assets of the RTBG should be instituted.	
2.0	Setting		
2.1	Historic Relationship with the Domain	The historic and cultural relationship between the RTBG and the Domain should be strengthened physically, visually and through interpretation.	See Section 2.3 & refer to the HCC's <i>Queens Domain Cultural Heritage Management Plan</i> . See also Section 3.1.



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
2.2	Historic Relationship with the Derwent	The historic and cultural relationship between the RTBG and the Derwent River should be strengthened physically, visually and through interpretation.	See the Statement of Cultural Heritage Significance (Section 2.3) & refer to the HCC's <i>Queens Domain Cultural Heritage Management Plan</i> . See also Section 3.1.
2.3	Promoting the Historic Relationship with Government House & Grounds	The historic and cultural relationship between the RTBG and Government House and its Grounds should be strengthened physically, visually and through interpretation.	See the Statement of Cultural Heritage Significance (Section 2.3)
2.4	Managing the Historic Relationship w/ Government House & Grounds	The management of matters that impact on the cultural significance of the Government House gardens & grounds and/or the RTBG should be regarded as mutually interdependent.	See Lewis and Aitken 1991:98.
2.5	Views to the RTBG	Preserve views from the eastern shore, the Tasman Bridge and from the River to the RTBG and its setting (i.e. within the context of the vegetated open space of the Domain and adjacent to an undeveloped foreshore).	See the Statement of Cultural Heritage Significance (Section 2.3).
2.6	Views from the RTBG	Views from the RTBG to its neighbouring places and geographical features of cultural heritage significance should be preserved. In particular 'historic vistas' which appear in key historical documents should be preserved and/or interpreted.	
2.7	Domain Highway	Opportunities to decrease the negative impacts, particularly the noise of traffic using, the Domain Highway on the RTBG should be considered wherever possible.	See Section 5.1 (Master Plan).
2.9	Adjacent Development ¹⁶	Development proposed within the vicinity of the RTBG should not detract from the cultural heritage values of the RTBG. Development applications should be accompanied by a Statement of Heritage Impact which outlines any impacts, why alternative solutions which had less or no impact have not been adopted and any measures taken to mitigate adverse heritage impacts.	

¹⁶ Development includes: demolition, partial demolition, new structures, new elements such as signage and lighting, major new services (above or below ground), subdivision, change of use tree removal, tree planting and new garden designs.



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
3.0	New Development within the RTBG		
3.1	New Development – Aboriginal Values	New development shall take into account possible impact on Aboriginal values. Consultation with the Tasmanian Aboriginal Land Council (TALC) and the relevant section of Government responsible for Aboriginal heritage issues is required at the inception of the development process to determine a suitable course of action. All new development work is to be preceded by an Aboriginal Heritage survey carried out by a qualified Aboriginal Heritage Officer (as defined by the TALC).	
3.2	New Developments - General ¹⁷	New developments should address possible impact on the cultural heritage significance as a whole; the significant botanical collection and on any individual heritage elements or zones of archaeological potential. For the latter, the process defined in Tasmanian Heritage Council Practice Note No. 2 (Appendix H) shall be followed.	See the Archaeological Zoning Plan (Map 2.2) & refer to THC Practice Note No. 2 (Appendix H).
3.3	Statements of Heritage Impact	A Statement of Heritage Impact shall be prepared for all new development ¹⁸ proposals. The Statement shall include consideration of alternative options (usually with less heritage impact) and the reasons why the chosen option is the most appropriate.	
3.4	Statutory Controls	Where work is likely to impact on cultural heritage significance works applications will be obtained under the <i>Hobart Planning Scheme</i> and the <i>Tasmanian Historic Cultural Heritage Act 1995</i> and the <i>Aboriginal Relics Act 1975</i> as required. The applications will be accompanied by the Statement of Heritage Impact (see No. 3.3, above).	
3.4	Sympathetic Use	Where a change in use of a built element or precinct which has cultural heritage significance is proposed, careful consideration shall be given to whether the proposed use is sympathetic to those heritage values. Whatever the use, a Statement of Heritage Impact (see No. 3.2) and appropriate statutory approvals are required (see No. 3.3).	
3.5	Design of New Elements Generally	New elements, including landscaping, built structures, fencing, signage, furniture & lighting, should be of	

¹⁷ Ibid.

¹⁸ Ibid.



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
		sympathetic contemporary design rather than forms with historical influences.	
3.6	Consistency of Design of New Elements	There should be a consistency of design for new contemporary elements over the next 5 years, including landscaping, built structures, fencing, signage, furniture & lighting so that the diversity of the older elements of cultural heritage value is not confused or cluttered.	
3.7	Existing Elements	Replace 'pseudo' heritage elements (e.g. aluminum heritage light fittings) w/ contemporary fixtures as their useful life is reached.	
4.0 Appropriate Consultant Advice			
4.1	Consultant Advice	Decisions which could impact on Aboriginal values, site specific heritage values and/or zones of archaeological potential should be informed by advice from relevant heritage professionals such as Aboriginal Heritage Officers (as defined by the TALC), heritage architects, landscape architects, historical archaeologists horticulturists, arboriculturists and/or structural engineers <i>et al.</i>	
5.0 Conserving Fabric and Vegetation of Cultural Heritage Significance			
5.1	Aboriginal sites	Proposals for new developments, in particular developments that involve new built structures, irrigation and drainage shall carefully consider any impacts on Aboriginal sites. 'Consideration' includes liaison w/ the agency responsible of Aboriginal heritage issues and the TALC, inspection of sites and investigations to determine the presence or absence of sites, and any actions that might be needed to meet legislative requirements or the reasonable requirements of the Aboriginal community.	
5.2	Fabric of cultural heritage significance	Proposals for new developments, in particular developments that involve new built structures, irrigation and drainage shall carefully consider the impacts on the fabric of the historic walls, buildings other structures and the significant botanical collection within the RTBG.	
5.3	Significant Botanical Collections	Any new development, particularly pathways, built elements and services should carefully consider the impact on adjacent significant botanical collections.	See National Trust Register of Significant Trees



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
5.4	Skilled contractors	The fabric of elements of heritage significance should be respected in terms of their form and finishes. Maintenance & repair work should be carried out by contractors with suitable experience and who have a demonstrated high degree of proficiency for their work on similar heritage structures or botanical collections.	
6.0	Interpretation¹⁹ and Directional Signage		
6.1	Interpretation through new garden design	When new garden designs are being considered, the opportunities to interpret the cultural heritage significance of the RTBG should also be considered.	For example new pathways or plantings can respect and interpret historic pathway and building alignments.
6.2	Interpreting the Significant Botanical Collection	The heritage importance of the significant botanical collections should be interpreted.	
6.3	Lighting of Signage	Internally illuminated signs should not be used in the RTBG and are also inappropriate for remote signage directing visitors to the RTBG and other attractions in the Domain.	
6.4	Aboriginal Heritage Interpretation	Interpretation of Aboriginal heritage must be undertaken in consultation with and with the approval of the Aboriginal community, the TALC and the Elders Council	
7.0	Continued Stakeholder & Community Involvement		
7.1	Friends of the RTBG	The Friends of the RTBG should continue to play an important role in the conservation and interpretation of the RTBG through the management of the RTBG Historical Exhibition and more generally as guides.	
7.2	Social Heritage Significance	Given the high esteem in which the RTBG is held by the Tasmanian community for its cultural heritage values, the Strategic Master Plan and any major development proposals should be subject to wide community consultation.	
7.3	Aboriginal community	Given the importance of the Gardens to the Aboriginal community, a specific policy of engagement should be developed. This would include their involvement in any development that is proposed for the site, the development of strategic planning documents (e.g.	

¹⁹ *Interpretation* means all the ways of presenting the *cultural significance* of a *place*. Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material. (Australia ICOMOS Burra Charter 1999).



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
		the Strategic Plan, the Master Plan, the Conservation Management Plan, etc.) and their participation in the development of interpretation related to Aboriginal activities in the Gardens and/or their use of native plants.	
8.0 Archives, Research & Investigation			
8.1	Archives	A formal RTBG Archives should be established (this may take the form of a partnership with the State Archives).	Assistance through the Friends of the RTBG should be considered in addition to applying for appropriate grants for archival management.
8.2	Professional history of the RTBG.	The Introduction to this SCAMP notes the imminent completion of new professional history of the RTBG. Information on the history of the Gardens should be accessible to the public by a variety of means (e.g. internet, pamphlets, manuscripts, signage, etc.).	
8.3	Further Research	The individual Assessment Sheets for precincts, built elements, walls, fences and gates note where further research and investigation is required. Such research & investigation should be carried out before major new developments are considered which will impact on the cultural heritage value of those precincts, built elements, walls, fences and gates.	see Appendices C and D
8.4	Aboriginal Heritage Survey	The current study has recommended the preparation of a detailed Aboriginal Heritage survey for the Gardens. Information obtained during any such survey is confidential. The proposed Aboriginal Heritage Survey should re-examine previously identified sites and map previously unsurveyed portions of the Gardens. Any sub-surface testing should be undertaken in consultation with the TALC.	see Section 3.8 of the current study
8.5	Conservation Management Plan	The current study has recommended the preparation of a detailed Conservation Management Plan for the Gardens	see Section 3.2 of the current study
9.0 Implementation			
9.1	Adoption of these Policies	A staff workshop should be held on completion of this SCAMP and at least every 5 years to explain the cultural heritage values of the RTBG and these Heritage Conservation Policies and Recommendations.	
9.2	Training of Staff – Aboriginal	Staff training in the identification of Aboriginal sites and materials and	Liaise w/ TALC to arrange appropriate



NO	TOPIC	POLICY OR RECOMMENDATION	REFERENCES & NOTES
	Heritage	appropriate measures of protection and management is required. A Cross Cultural Awareness Training Program should be completed by all grounds staff.	training.
9.3	Review of Policies	The above Conservation Policies should be reviewed every five years.	

Table 2.2 Conservation Policies for the RTBG



CHAPTER 3

STRATEGIC ASSET MANAGEMENT ISSUES

The following chapter raises a number of issues in relation to the on-going management of the strategic assets of the RTBG. The recommendations that are made in relation to each issue are for the consideration of the Board in conjunction with Government. The order of presentation does not reflect an order of priority. The Board should review the recommendations and determine the priority for implementation as they see fit.

3.1 HISTORIC PRECINCT

At a visionary level, the conservation values and function of the Gardens and its potential to meet its vision and strategic goals would be enhanced by better integration with a number of surrounding precincts/sites. This potential to meet an expanded vision of the Gardens was identified by stakeholders as part of the current project and as part of the preparation of the *Royal Tasmanian Botanical Gardens Strategic Plan 2003-2007*. The sub-precincts/areas that were frequently mentioned included the Queens Domain, Government House, the Beaumaris Zoo, the Derwent Foreshore (and Pavilion Point in particular) and the Cornelian Bay Cemetery.

3.1.1 Background

Queens Domain

The Gardens has a strong historical association with the greater Queens Domain and Government House. The strength of association arises from the early acquisition of former land grants for the establishment of the Queens Domain and the almost coincidental establishment of the Government House site and the Gardens on part thereof.

Whilst there is little remaining administrative connection between the Gardens and the Domain, the two remain interlinked as part of a larger 'Victorian' park landscape "where changing vistas through trees to distant prospects was an essential element" (Austral Archaeology and Sheridan 1999). The Victorian character of the Domain, in the form of widespread plantings - a surprising number of which survive to this day - was introduced to the Domain largely through the patient and enduring efforts of E.J. Crouch and Superintendent Francis Abbott during the latter part of the nineteenth century. One enduring legacy of this is the emerging understanding that the RTBG and the greater Queens Domain share a collection of conifers that are potentially of international significance.

In terms of usage, the RTBG fits with the intent of setting the Queens Domain aside for “the recreation, health and enjoyment of the inhabitants of the said City [Hobart] and others’²⁰ and with the newer vision for the Domain that it be:

“a park of the people which celebrates and protects its significant natural landscape and rich cultural history whilst providing for the education, recreation, health and enjoyment of its visitors” (de Gryse 1996:32).

Government House

The landscape and history of the Gardens and that of Government House are also inextricably bound up with major portions of the Gardens having originally been part of the Government House grounds. The inter-relationship between the two properties is seen in the Statement of Significance for Government House. The Statement of Significance identifies links with the early development of the Domain singling out the Eardley Wilmot Wall for special mention (Lewis and Aitken 1991:37). This Wall still defines a portion of the boundary between the Gardens and Government House but initially enclosed a much larger section of the Government House Grounds which were annexed to the Gardens in 1964 (the ‘eastern section’ of 2.2 hectares).

The landscape of the Gardens and Government house share a similarity of style based on exotic plantings. Conifers within the Government House grounds contribute to the Domain’s significant pinetum mentioned above.

The discussion of the historical significance of Government House also recognises this, identifying the role of the Gardens in providing an “appropriate mature backdrop of largely exotic vegetation in contrast to the remnant native vegetation and other planting of the Domain” (Lewis and Aitken 1991:35).

The Conservation Policies for Government House also strongly recognise the links between the two properties stating that:

Government House gardens and surrounds and the Botanic [sic] Gardens property be regarded as mutually interdependent with respect to matters that affect their cultural significance (Lewis and Aitken 1991:40).

Today, the physical relationship between the two properties is limited, with the entry to the nursery via the access to various cottages and workshops and the lower gate at the Domain Highway being the only places where the two properties have any interface. However, the visual connections remain strong and stakeholder input into

²⁰ *Queens Domain Vesting Act*, No. 41, 1917.



the current study and the *Royal Tasmanian Botanical Gardens Strategic Plan 2003-2007* indicates that the historic relationship is still strongly alive in the community psyche.

Beaumaris Zoo

The 'Victorian park' character of the Domain also establishes a link between the Beaumaris Zoo and the Gardens. This link in character is reinforced by the conifer plantings at the Zoo site that, with the Gardens and other locations on the Domain, form part of the significant conifer collection noted above. Many of these trees date from the 1890s, thereby establishing a long history of interrelationship between the two sites.

Derwent River Foreshore and Pavilion Point

There are also strong physical and historical associations between the Gardens and the Derwent River foreshore, due to its historic connection to the river edge (prior to the construction of the rail line) and the RTBG's continued ownership and management of a remnant of land there (0.41 ha) from this earlier period.

Although never part of the Gardens, Pavilion Point was historically associated with Government House, first as Hangan's Farm that was set up to supply Government House with produce and later as part of the property. The connection between Pavilion Point and Government House was severed by the construction of the railway in 1873.

Today, the pier at Pavilion Point is rarely used, a purpose built jetty having been built for use by ferry operators to disembark visitors to the Gardens. Access by water, however, harks back to the days when Government House maintained a boathouse in the area of the Botanical Gardens rail station.

Cornelian Bay Cemetery

Further afield, but also with a tenuous link to the Gardens, is the Cornelian Bay Cemetery.

The design of the Cornelian Bay Cemetery was the result of a design competition and included grand walks, chapels, and a tree border that was never fully implemented. Some of the borders were planted and these include a number of conifer species including pines and Bhutan cypresses.

Today, the Cemetery is linked to the Gardens via a foreshore walking track. It is this physical link, the link in the planting types and the fact that both are located on prominences adjacent to the river which suggest that there may be some benefits in exploring opportunities to integrate aspects of the management of both sites.



3.1.2 Recommendation

Consideration should be given to how management of the Queens Domain, Government House, the Beaumaris Zoo, the Derwent River foreshore, Pavilion Point and the Cornelian Bay Cemetery might be better integrated with the RTBG.

The strength of these associations will be better understood, when a comprehensive Conservation Management Plan is prepared for the RTBG as discussed in Section 3.2.

3.2 CONSERVATION MANAGEMENT PLAN

3.2.1 Background

In stating that the Government House gardens and the Gardens be regarded as “mutually interdependent”, the authors of Government House conservation analysis recognised that it would be “highly desirable that a conservation analysis be undertaken for the Botanic [sic] Gardens” (Lewis and Aitken 1991:40-41).

The RTBG retains many built heritage features and several zones of archaeological potential that, together with good archival references, have the potential to yield information on the development of the Gardens over time.

At a strategic level, the SCAMP was not intended to be a comprehensive Conservation Management Plan (CMP). The study was especially constrained by the lack of a comprehensive history of the site. Amongst other things, the lack of a comprehensive history has precluded preparation of detailed and comprehensive policies as would be expected in a Conservation Management Plan (only those policies related to the maintenance of physical assets have been developed).

A comprehensive Conservation Management Plan should be prepared for the Gardens. Completion of a comprehensive Conservation Management Plan will help in the achievement of Strategic Goal 1 of the *Royal Tasmanian Botanical Gardens Strategic Plan 2003-2007*- “to ensure the RTBG is internationally recognised for... cultural landscape and Aboriginal and European heritage” (RTBG 2003:14).

The CMP will ensure that opportunities are recognised to interpret the cultural heritage significance of the RTBG in accordance with the *Australia ICOMOS Burra Charter 1999* definition of interpretation²¹. In practical terms, fulfillment of this objective will increase the amenity of the Gardens by promoting understanding of key historical associations.

²¹ Refer www.icomos.com.au



3.2.2 Recommendation

A comprehensive Conservation Management Plan should be prepared for the RTBG.

The Plan would give particular attention to recommendations for better interpretation of the cultural heritage values of the RTBG in accordance with the *Australia ICOMOS Burra Charter, 1999*.

The Scope of the Conservation Management Plan could include but not necessarily be limited to:

recognition of original topographical features that have been incorporated within the landscaped grounds;

references to contact between the Aboriginal people of the area and the early colonists in the RTBG area;

insight into the lives and work of the convicts and staff in the early developmental period of the RTBG;

the importance of water on the rate of progress of establishment; and

authoritative identification of any remnant historic landscape patterns (taking into account existing information and significant tree collections).

The Conservation Management Plan should be carefully integrated with the preparation of the overall Strategic Master Plan for the RTBG (see Chapter 5). In conjunction with conservation imperatives, one of the central aims of the CMP should be to identify interpretation opportunities (see Section 3.6).



3.3 TOPOGRAPHIC AND FEATURES SURVEY

3.3.1 Background

At a strategic level, the SCAMP has been hampered by a lack of detailed topographic and features survey information. For instance, access concerns have only been cursorily dealt with in the current study owing to the lack of data from which to calculate path slopes. Further, the lack of detailed information about the irrigation system and the stormwater system have also limited the capacity to determine catch-up and cyclical maintenance priorities for these infrastructure systems.

A detailed survey that identifies the location and elevation of the features of the Gardens is also an essential tool in preparing the proposed Access Strategy (Section 3.4) and invaluable to the proposed Water Audit (Section 3.5), the proposed Strategic Master Plan or any future development.

3.3.2 Recommendation

A comprehensive topographic and features survey of the Gardens should be undertaken.

The proposed topographic and features survey would include spot levels for all surface features including:

- major trees and the outline of planting beds;
- buildings and structures;
- stormwater features (including sub-surface features such as pipe sizes and invert levels);
- irrigation fixtures including control stations, pop-up spray heads;
- water (valves, garden taps, etc.), sewer (surface features and sub-surface features including pipe sizes and invert levels) and telecommunications fixtures; and
- garden elements (e.g. seats, fences, garden ornaments, retaining and garden walls, fountains, pools, picnic tables, etc.).

On completion separate overlays should be produced showing the stormwater, sewer, irrigation and water systems. These will be useful in the conduct of the proposed Water Audit (Section 3.5).



3.4 ACCESS

3.4.1 Background

As was discussed in the introduction to the current report, the Gardens has been developed over a period of nearly 200 years on a site with a rolling topography. Initially, a path network of rectangular shape was laid out with north to south paths generally following the contours and the east to west paths generally traversing perpendicular to the contours. Over time, this pattern of contoured paths or cross slope paths has been modified and extended to cover the whole of the Gardens, albeit in a less formal pattern including both major paths and stairways and a network of minor tracks and garden steps.

Given the natural topography of the site and the historic exploitation of the garden design opportunities it presented, much of the path network today does not provide for disabled access. There are exceptions including the new Main Entry Path (P24), the Easy Access Path above the Lily Pond (P25) and the access to the Visitor Centre (P32). Elsewhere, many paths have appropriate gradients (e.g. <1:20, the recommended maximum for 'universal access' or <1:14 for assisted access) but cannot be:

used due to excessive cross-falls (the accepted standard is 1:66 or 1.5%); or

reached due to the lack of suitable links or because access, where it is available, is excessively circuitous.

Where paths achieve a 1:14 gradient, the standard is that they should be fitted with appropriately designed handrails on both sides, to be truly accessible.

There are also other barriers to access such as inappropriately designed stormwater grates in footpaths that hinder wheelchair movement, a general lack of handrails at stairways/garden steps to provide support and/or a narrowness of paths that preclude shared use by both wheelchairs/walkers and others. A more detailed assessment of access barriers may reveal further hindrances.

Stakeholders consulted as part of the current project and the Strategic Plan identified concerns over the lack of a coherent system of paths that gives appropriate disabled access to significant features within the Gardens. Such access is important to the achievement of the Garden's vision and goals, particularly given the general visitor profile and the role of the Gardens as a community facility. Further, the RTBG has legislative requirements in regards to disabled access.



However, the natural limitations of the site and the potential impact of providing accessible paths on cultural heritage and visual values suggest that universal access to all parts of the Gardens may not be achievable. A strategic approach to providing access, therefore, is required which addresses legislative requirements in light of the constraints on providing it (e.g. topography and cultural heritage).

3.4.2 Legislative Requirements

The RTBG have statutory requirements under the Commonwealth *Disability and Discrimination Act 1992* (the DDA) and the *Tasmanian Anti-Discrimination Act 1998* (the TADA) to make all reasonable attempts not to discriminate against people on the grounds of their having a disability. The goals of the DDA and TADA are not considered to be fulfilled by limited or parallel access. Instead it promotes and protects *equality* of access – physical, informational and attitudinal.

In the 1999 study, *Improving Access to Heritage Buildings: A Practical Guide to Meeting the Needs of People With Disabilities* (Martin 1999), it was emphasised that people with disabilities should be given equal opportunity to participate in, and contribute to, the full range of social, political and cultural activities afforded at heritage sites. However, the study also recognised that full access through a historic landscape was not always possible given the need to conserve heritage places and not to alter them in ways that adversely affect their significance.

If comprehensive access is not provided then strong justification is required to support this under the DDA. The DDA allows for exemptions where provision of disabled access places ‘unjustifiable hardship’ on the provider. Amongst other potentially relevant sections of the DDA, Section 24 (2): Goods, Services and Facilities states:

“This section does not render it unlawful to discriminate against a person on the ground of the person’s disability if the provision of the goods or services, or making facilities available, would impose unjustifiable hardship(Consultant’s emphasis) on the person who provides the goods or services or makes the facilities available.”

Unjustifiable Hardship needs to be determined in accordance with Section 11 of the DDA, which states:

“in determining what constitutes unjustifiable hardship, all relevant circumstances of the particular case are to be taken into account including:

- (a) the nature of the benefit or detriment likely to accrue or be suffered by any persons concerned; and



- (b) the effect of the disability of a person concerned; and
- (c) the financial circumstances and the estimated amount of expenditure required to be made by the person claiming unjustifiable hardship; and
- (d) in the case of the provision of services, or the making available of facilities—an action plan (Consultant’s emphasis) given to the Commission under section 64.”

In substantiating ‘unjustifiable hardship’, it is relevant to identify where there are a lack of feasible options. Feasibility, in the case of the Gardens, would be constrained by the impacts that developing disabled access would have upon the identified heritage values. Financial considerations are also relevant, but only secondarily as the aforementioned impacts are the primary concerns.

A member of staff from the Human Rights and Equal Opportunity Commission was consulted on this subject in relation to a similar situation at another public heritage site (Inspiring Place 2003). Their opinion, in that case, was that unjustifiable hardship includes “any relevant forms of detriment, not just financial burden”. In particular, where the purpose of a facility is to present conservation/heritage values, “loss of those values would be relevant in showing unjustifiable hardship”²².

3.4.3 Recommendation

An Access Action Plan should be prepared in accordance with Part 3 of the DDA 1992.

Action Plans are prepared voluntarily to demonstrate intent to move towards more equitable access. Action plans can also be required as part of an access agreement between parties that arises through the lodging of a complaint with the Commission over discrimination. Section 61 of the Act states that:

The plan must include provisions relating to:

- (a) the devising of policies and programs to achieve the objects of this Act; and
- (b) the communication of these policies and programs to persons within the service provider; and
- (c) the review of practices within the service provider with a view to the identification of any discriminatory practices; and

²² D Mason *pers comm.* 14.10.02. Human Rights and Equal Opportunity Commission.



(d) the setting of goals and targets, where these may reasonably be determined against which the success of the plan in achieving the objects of the Act may be assessed; and

(e) the means, other than those referred to in paragraph (d), of evaluating the policies and programs referred to in paragraph (a); and

(f) the appointment of persons within the service provider to implement the provisions referred to in paragraphs (a) to (e) (inclusive).

The proposed Action Plan should also include:

an assessment of the gradient and cross slope of all paths within the Gardens (this information should be added to the Asset Register); and

identification of potential links which would increase the extent of the network which is readily accessible at present (these can then be explored in the proposed Strategic Master Plan – see Chapter 5).

3.5 WATER AUDIT

3.5.1 Background

A number of issues were identified during the current study that related to water management at the site. These included;

the lack of comprehensive information and/or mapping of the irrigation, stormwater and water systems;

operational concerns arising from the scope and functionality of the irrigation system;

operational concerns arising from the functionality of the stormwater system; and

the need for the Gardens to display best practice water management as part of its vision to be a leader in environmental sustainability.



The *Situational Analysis* (Macfadyen and Papworth 2002) provided a descriptive overview of the coverage of the irrigation system. It concluded that:

the computerised system is over 10 years old but performs satisfactorily;

the galvanised Buckner system (as found in the Fountain and Rills and Protea Sections) is over 30 years old and is beginning to corrode; and

coverage is patchy in places and results in over-saturation in areas where plantings with differing water requirements, requiring supplementary watering by hand.

Stormwater management issues identified during the current study include:

flooding of the main drainage line through the Lily Pond and beyond as a result of excessive concentration of run-off in the catchment above the Gardens²³;

failure of some stormwater fixtures to cope with the volumes of water passing through them;

localised puddling on paths (particularly along the track along the path through the Pinetum (Path 30) and through the northern portions of the Gardens (Path 22);

run-off from gravel tracks onto paved surfaces leaving small stones (potential slipping hazard) and sediments [at the lower entry (Path 20) and at the intersection of Paths 30, 22, 23 and 31];

the need to manage runoff to reduce the potential spread of plant pathogens;

access issues related to the style of trench grates used in many locations; and

localised drainage concerns in lawn and planting areas.

The existing stormwater and irrigation systems are based on traditional principles. The stormwater system seeking to 'collect, conduct and dispose' of stormwater, whilst the irrigation system utilises the regional treated water supply system. Neither of these practices meet current 'best practice' for environmentally sustainable water use - concerns for environmental sustainability in the operations of the Gardens

²³ This recommendation was highlighted in the *Queens Domain Management Plan* which recommended that 'a stormwater and nutrient mitigation program (i.e. retention ponds, silt traps, etc.) along the creekline ('Grasslands Gully) below the Crossroads Oval to slow water movement and reduce nutrient loading (flooding is a problem downstream in the RTBG...)' (de Gryse 1996:81).



having been raised during consultation for the *Strategic Plan 2003-2007* (RTBG 2003).

3.5.2 Recommendation

The stormwater, irrigation and water systems should be analysed in the form of a 'Water Audit' with a view to ensuring best practice water management²⁴.

Such an audit will enable best practice water management within the Gardens. The proposed Water Audit should minimally involve:

a catchment wide analysis to determine the sources, volumes and quality of stormwater entering and flowing through the Gardens;

a detailed analysis of the existing stormwater system (including preparation of a detailed map of surface/sub-surface features) to determine its strengths, weaknesses and opportunities and the actions required to resolve existing problems through traditional or more environmentally sensitive solutions (e.g. on-site infiltration, water reuse, on-site storage, etc.);

an examination of water demands within the Gardens, and how they can be reduced or better utilised or take advantage of available stormwater/roofwater; and

a detailed analysis of the existing irrigation system (including preparation of a detailed map of surface and subsurface features) to determine its strengths and weaknesses and the actions required to resolve existing problems.

The proposed Water Audit may also consider opportunities such as:

the reuse of greywater;

materials and energy use in the operational elements of the stormwater and irrigation systems;

an examination of the use of the Gardens as an area where alternative water use practices can be demonstrated (e.g. it may be feasible to install a composting toilet in the northern reaches of the Gardens as a means of over-coming the lack of toilets in this area and demonstrating a technology that minimises the need for water); and

²⁴ At a more expansive level consideration might be given to an overall Environmental Management Plan which considers not only water usage but also waste management, energy management, pesticide and herbicide use, hazardous chemicals and dangerous goods, etc.



the potential to develop a constructed wetland on the old shed site at Pavilion Point (this might be coupled with the treatment of site wastes or on a grander scale the treatment of wastes from elsewhere in the City).

On completion, the Water Audit should be used as the basis for a Water Management Plan that delivers best practice outcomes for water use within the Gardens.

3.6 INTERPRETATION AND INFORMATION STRATEGY

3.6.1 Background

Interpretation

Investigations and stakeholder consultation as part of the current study and stakeholder comment for the *Royal Tasmanian Botanical Gardens Strategic Plan 2003-2007* have:

highlighted the general lack of interpretation within the Gardens;
and

the low quality and poor condition of much of the interpretive signage which has generally been used to date (more recent installations, e.g. Interpretation Sign Type 2, being the exception to this assessment, although this type is not without its problems).

Good interpretation will significantly enhance the experience of the Gardens for tourists and locals, indeed, it is essential to the achievement of the RTBG's Strategic Goal 3 (RTBG 2003) – “to communicate the relevance and importance of the RTBG, its programs, people and context through meaningful and valued interpretation”.

To be successful, interpretation needs to:

be *pleasurable* –it must hold the audience's attention and be presented in a creative way that is entertaining, authentic, interesting and motivating;

be *relevant* –it must be tailored to have meaning (e.g. it must connect with something the audience already knows) and be personal (e.g. it must link to something the audience cares about);

be *organised* –the audience's level of engagement depends on the potential rewards and the degree of effort required on its behalf; and



have a theme – that is, it must have a central message rather than just a series of topics – “the story is the thing” (Tilden 1957:26) – it must have a moral.

The interpretation which does occur in the Gardens, in common with much interpretation elsewhere, is ‘topic’ focused e.g. the Cactus House, the Arthur Wall, etc. When the focus is on topics, there is a potential for a lack of focus. There are endless facts, but no take home message.

Having a strong, creative and innovative theme and sub-themes will give a better understanding of how the messages should be delivered. To date, what little interpretation has been done has relied on signage, and to some extent on tours by the Friends of the Gardens. Whilst the former has been well intended, it is beyond its use by date with most signs in need of repair and/or replacement.

There is an opportunity, then, to explore the notion of thematic interpretation - the take home messages which the Gardens want to give people – and how these can best be delivered²⁵ to the RTBG’s target audiences.

Information

Information is distinct from interpretation in that its goal is to be informative rather than educative. The purpose of good information is to ensure that visitors can answer the “what, when and where” questions about a place, whereas interpretation helps them answer the “why” questions.

One of the most common means for conveying information to the public is by means of signage (directional, warning, safety, etc.). There are also a range of other informational media including printed pamphlets, maps, verbal advice, photos etc.

²⁵ The Burra Charter definition of interpretation focuses on the ways of presenting the cultural significance of a place suggesting that it may include a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction), the use of and activities at the place and the use of introduced explanatory material. (Australia ICOMOS Burra Charter 1999). Whereas Tilden defines interpretation as “an educational activity which aims to reveal meanings and relationships through the use of original objects, by first-hand experience and by illustrative media, rather than simply to communicate factual information” (Tilden 1957:8). More simply Sam Ham has defined interpretation as “an approach to communication” that involves the translation of technical language into terms that people can readily understand. It is about ideas and relationships rather than facts and figures - it is about “the so what” of a story (Ham 1992:3).



Stakeholder consultation and the current study revealed some particular concerns regarding signage within the Gardens. Whilst the style of the key signage types (e.g. Sign Type 1 – Entry Signs and Sign Type 2 – Directional Signs) are well considered, problems were identified with:

the number of minor signs which clutter entry points;

the poor standard of directional signage (e.g. Sign Type 4) in areas where the new style of signs has not been introduced;

the lack of clear regulatory signs which integrate internationally recognised pictograms (particularly at the entries, but at all locations where prohibitory signs are erected);

the quality of the map which is being used on the entry signs (e.g. the legibility, layout, consistent naming of features between maps, etc.);

the need to introduce some hazard warning signs (e.g. where footpaths are shared with vehicles - see the Risk Management Assessment, Appendix E)

Together these issues suggest the need for an information audit and strategy.

Because of the relationship between interpretation and information, there may be advantages in the two activities, an interpretation strategy and the signage audit being undertaken simultaneously.

3.6.2 Recommendation

Prepare an Interpretation and Information Strategy for the Gardens.

The interpretation portion of the proposed Strategy should include:

information contained in and the opportunities identified by Conservation Management Plan;

the development of a clear theme and sub-themes, which directly correspond to the mission and goals of the RTBG;

identify the best mechanisms for delivery of those themes;

a review of the target audience so that delivery mechanisms can also be matched to the various user groups (e.g. tourists, local families, school groups, etc.);



identify how the themes will be integrated with all of the materials produced by the Gardens for public review (e.g. web pages, brochures, hand outs, public displays, etc.);

recommendations on the standardisation of materials and signage (including directional signage) in terms of type faces, colours, appearance etc.);

set out a clear program for implementation; and

a training program for all personnel in the organisation.

The information portion of the proposed Strategy should:

identify those areas where Sign Type 2, directional signage should be installed;

identify where the number of signs can be rationalised or eliminated; and

consider the appropriateness of the existing signage hierarchies and any additional layers of information which might be needed; and

consider the interrelationship between signage within the Gardens and other informational materials which the RTBG produces.

3.7 NURSERY AND DEPOT

3.7.1 Background

On an operational level, a number of concerns were raised during the current study with:

the functionality of the Nursery area;

the use of the Nursery area as a staff car park; and

stormwater contamination issues within the Poisons Store and Pot Cleaning area and the Sub-Antarctic Stores (shipping containers).

It was also noted that within the Nursery Area there were needs to:

provide new operable roof ventilation system to the Potting Shed to remove heat build up from the adjoining glasshouse;



replace the glass to the Depot [and Easy Access Garden glasshouses (B08)] with polycarbonate sheeting to reduce maintenance costs and improve OH&S issues;

replace the shipping containers (e.g. the Sub-Antarctic Plant Stores and the Laboratory) with more permanent facilities as they are reaching the end of their useful life:

improvements to the Staff Crib Rooms in the Depot area (B16) to remove the heat build up problem through the highlight windows and to expand the available area (the Crib Rooms are considered to be too segregated and small);

improved ventilation to the Depot Upper Level (B15) [and Easy Access Garden glasshouses (B08)], possibly together with addition of new access points;

improved bunding to the chemical stores; and

improve the security of the area to reduce the potential for public access.

The condition of the Northern Storage area (P21) was also of concern, particularly the storage bins which require catch-up maintenance) and the need for greater control of public entry (a risk management concern).

These combined issues point to the need to investigate the wholesale integration of the Nursery and the northern storage yard.

3.7.2 Recommendation

Examine the options for integrating the Nursery and the northern storage yard into a single location.

In the absence of this major initiative, catch-up maintenance of risk and OH&S concerns in both areas have high priority.

Any investigation of the future of the Nursery and particularly any proposed development should be undertaken with an awareness of the conservation policies for Government House. These policies identify the Nursery Area (the former Royal Society Block) as a “sensitive site” on which “any new development could adversely effect the Government House garden”. In response, it is recommended that the area be “maintained and developed in a manner that does not visually intrude on Government House garden” (Lewis and Aitken 1991:45).



3.8 ABORIGINAL HERITAGE

3.8.1 Background

Previous survey work has identified a number of Aboriginal sites within and adjacent to the Gardens area. These indicate that more extensive sites are likely to be found within the Gardens and that rather than representing individual entities, they more than likely comprise a single large site containing a number of occupancy sites.

Additional information regarding the extent of Aboriginal activity within the Gardens would be of value in managing the site and its interpretation.

3.8.2 Recommendations

An Aboriginal Heritage Survey should be conducted for the whole of the RTBG site.

Such as survey should include:

liaison with the Aboriginal community and the Tasmanian Aboriginal Land Council;

additional desk top survey to determine if any additional information is available to that discovered as part of the current study;

resurvey of known sites to determine their size, boundaries, content and extent of destruction (this may involve surface scapping); and

survey of other areas in the Gardens which have not previously been examined to determine whether additional sites exist (this may involve surface scapping).

Adjacent sites outside Gardens boundaries on Council land should also be examined in consultation with the Hobart City Council and its Aboriginal heritage staff.

The proposed Aboriginal Heritage Survey is to be conducted by an accredited Aboriginal Heritage Officer and an archaeologist.

On completion, the survey should be used to guide on-going care and maintenance within the Gardens.

A cross cultural awareness course should be run for Gardens staff to encourage a greater understanding of Aboriginal heritage within the site.



Cross cultural awareness training provides an opportunity for staff to develop:

a greater understanding of the Aboriginal values associated with the Gardens;

skills in identification of Aboriginal sites; and

awareness of protocols in appropriate activities areas which contain sites;

an understanding of the appropriate course of action to take should a new site be found.

The Tasmanian Aboriginal Land Council should be contacted to engage their assistance in the development and delivery of the required training.

3.9 ORGANISATIONAL ACCOMMODATION NEEDS:

3.9.1 Background:

The RTBG is at capacity in relation to accommodation for staff, volunteers, customers and other stakeholders, and the quality and 'fit for purpose' of its current facilities.

Many of the buildings have been adapted for occupation and use and either are inadequate or just meet their current purpose. Staff amenities are duplicated and separate the teams providing less than optimal operating arrangements.

A full review of accommodation needs for the current and planned future organisational needs is required to ensure that optimal use and operational capacity is achieved with existing and planned facilities.

Heritage buildings such as the current Administration Office could provide significant opportunity for public use including commercial hire opportunities, amongst other things.

3.9.2 Recommendations:

Prepare an accommodation plan for current and planned needs including assessing current 'fit for purpose' of all RTBG facilities.

In particular assess the adaptive reuse of significant heritage buildings for public use and access.



Ensure that the accommodation plan is included as background information for the proposed RTBG Strategic Master Plan and relevant Department of Tourism, Parks, Heritage and the Arts, strategic asset management planning processes.



CHAPTER 4

CATCH-UP MAINTENANCE AND CYCLICAL MAINTENANCE PLANS

This Chapter is in four parts:

Section 4.1 provides an overview of how the condition of the Gardens was assessed;

Section 4.2 describes the overall condition of the Gardens;

Section 4.3 sets out the basis for and the main findings of the Catch-Up Maintenance Plan for the Gardens (Appendix F); and

Section 4.4 sets out the basis for and the main findings of the Cyclical Maintenance Plan for the Gardens (Appendix F).

4.1 ASSESSING THE OVERALL CONDITION

The current study has assessed the physical and operational condition of the built assets of the Gardens. For each of the major assets a data sheet has been completed. The data sheets vary slightly between those for buildings and features and those for paths and areas but generally they include:

- a description of the element being assessed;
- the main construction materials;
- a description of related features;
- a condition description;
- comments regarding safety and risk;
- an assessment of their strategic importance;
- a heritage assessment;
- schedules for catch-up and cyclical maintenance;
- recommendations as to any further investigations which may be required; and
- bibliographic notes.

The data sheets also include a location map, various illustrations as appropriate and photographs.

Within the data sheets, schedules for catch-up and cyclical maintenance use a standardised rating system as follows:

Catch-Up Maintenance (CUP) Priority Code

P1 = Highest Priority – essential, work to be carried out in next 12 months (i.e. commence 2003/04). Work is essential to the RTBG Strategic Plan, improved safety, improved access, improved operation of site, and/or conservation of heritage values.

P2 = Medium Priority – work to be carried out within next 2.5 years (i.e. commence 2004/05). Work is important to RTBG Strategic Plan, improved safety, improved access, improved operation of site, and/or conservation of heritage values.

P3 = Lower Priority – work to be carried out in next 5 years (i.e. commence 2005/06). Work will facilitate RTBG Strategic Plan, improved safety, improved access, improved operation of site, and/or conservation of heritage values.

Cyclical Maintenance (CYCMP) Frequency Code

1Y = to be carried out at least yearly or more frequently. (Includes items such as cleaning gutters, drains, servicing machinery & essential services);

2.5Y = to be carried out approximately every two and a half years. (Includes items such as ease and adjust hinges, checking roof cladding, resurfacing paths, maintaining water tightness of fragile assets); and

5Y = to be carried out approximately every 5 years. (Includes items such as, repointing brickwork & repainting).

The system weights a variety of factors including heritage, OH&S, risk, operational importance, etc. From this, a determination is made as to whether works are essential to (P1), important to (P2) or will facilitate achievement (P3) of the *Strategic Plan 2003-2007* and whether they require immediate or longer term attention (i.e. P1 priority within the next 12 months to P3 priority within the next 5 years).



The data sheets also indicates which trades will be involved in performing the required maintenance. Note that where no trade is listed, it has been assumed that works will be undertaken by RTBG staff.

The detailed requirements for each building, feature, path, etc. are set out in the data sheets in Appendices C and D. These have been collated and described more fully in the Catch Up and Cyclical Maintenance schedules in Appendix F.

These schedules assign a specific reference to each item, describe the item from the data sheet, provide an order of cost estimate for the proposed works and give additional notes as to what is included in the cost.

The costs exclude contractor preliminaries (in the order of 5%), design or construction contingencies (in the order of 10%), GST (10%), consultant fees (in the order of 10%). The maintenance costs also exclude normal regular cleaning of internal or external surfaces; loose furniture or soft furnishings, movable items (e.g. plant and equipment, computers and accessories and/or vehicles), regular staffing costs, management costs such as insurances, advertising and promotion, telephone, stationary or annual recurrent costs (e.g. toilet rolls, light bulbs; tools and movable equipment).

4.2 OVERALL CONDITION ASSESSMENT

On the whole the physical assets of the Gardens are in very good condition – the facility generally presents well to the public, there are few risk hazards and limited concerns for OH&S. Several essential items of plant and equipment and vehicles are nearing the end of their useful life and require replacement. Assuming appropriate funding is available, catch-up maintenance and cyclical maintenance will address the concerns that have been identified.

Table 4.1 sets out a summary of required expenditure for catch-up and cyclical maintenance based on the schedules in Appendices F and J.

Note that the sums shown for P2 and P3 catch-up maintenance items represent averages over the allotted time periods (2 years and 5 years). At this point it has not been determined which specific items these figures represent.

Note also the recommended 5-year review of this document has not been allowed for in the figures. It is anticipated that a sum, in the order of \$30,000 would be sufficient for this purpose (also includes an allowance for updating the risk assessment).



	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	Total Period
BUILT ELEMENTS AND FEATURES						
Catch Up Maint - P1*	\$282,000	n/a	n/a	n/a	n/a	\$282,000
Catch Up Maint - P2*	\$137,600	\$137,600	n/a	n/a	n/a	\$275,200
Catch Up Maint - P3*	\$68,860	\$68,860	\$68,860	\$68,860	\$68,860	\$344,300
Sub- Total CUP	\$488,460	\$206,460	\$68,860	\$68,860	\$68,860	\$901,500
Cyclical Maintenance*	\$67,087	\$67,087	\$67,087	\$67,087	\$67,087	\$335,435
PLANT AND EQUIPMENT						
Catch Up Maint - P1**	\$190,000	n/a	n/a	n/a	n/a	\$190,000
Catch Up Maint - P2**	\$46,500	\$46,500	n/a	n/a	n/a	\$93,000
Catch Up Maint - P3**	\$12,600	\$12,600	\$12,600	\$12,600	\$12,600	\$63,000
Sub-Total CUP	\$249,100	\$59,100	\$12,600	\$12,600	\$12,600	\$346,000
Annual Leasing Costs (Vehicle and Non-IT Equipment)**	\$54,000	\$54,000	\$54,000	\$54,000	\$54,000	\$270,000
Cyclical Replacement IT Items***	\$8500	\$8500	\$8500	\$8500	\$8500	\$42,500
Totals All Items (CUP + Cyclical)	\$867,147	\$395,147	\$211,047	\$211,047	\$211,047	\$1,894,435

* From Appendices F ** From Appendix J

*** Based on \$25,000 worth of leased IT goods replaced on a three year rotation.

Table 4.1 Schedule of Required Expenditure Over 5 Year Period

Table 4.1 indicates that approximately \$1.9M will be required over the next five financial years to address the catch-up maintenance and cyclical maintenance requirements of the Gardens for its Built Features, Elements, Plant and Equipment.

Table 4.1 indicates that:

the total catch-up maintenance requirements for the Built Elements and Features within the Gardens are in the order of \$901,500 with

P1 requirements being in the order of \$282,000

P2 requirements being in the order of \$275,000;

P3 requirements being in the order of \$344,000; and



the annual cyclical maintenance requirements for the Built Elements of the Gardens are in the order of \$70,000 per annum.

Table 4.1 also indicates that

the total catch-up maintenance requirements for the Plant and Equipment within the Gardens is in the order of \$346,500 with

P1 requirements being in the order of \$190,000

P2 requirements being in the order of \$93,000;

P3 requirements being in the order of \$63,000; and

the annual cyclical leasing (vehicles and equipment) and replacement (IT items) requirements for Plant and Equipment are in the order of \$62,500 per annum.

Looking at these figures over five financial years, Table 4.1 suggests that:

approximately \$867,000 will be required in financial year 2003-2004 to address urgent catch-up maintenance (e.g. P1), a proportion (half) of the P2 catch-up maintenance, one-fifth of the P3 catch-up maintenance plus cyclical maintenance and equipment replacement for all items considered in the SCAMP;

approximately \$395,000 will be required in financial year 2004-2005 to complete P2 requirements, a further fifth of the P3 catch-up maintenance plus cyclical maintenance and equipment replacement for all items considered in the SCAMP; and

approximately \$211,000 per annum will be required thereafter through the next three years to complete all catch-up maintenance requirements plus cyclical maintenance and equipment replacement for all items considered in the SCAMP.

Table 4.2 summarises the number and cost of proposed catch up maintenance by trades (excludes plant and equipment, computers and accessories and vehicles).



Trade	Number of items	Cost of Items
asbestos removalist	1	\$5,000.00
bricklayer	1	\$20,000.00
builder	2	\$13,000.00
carpenter	12	\$49,700.00
carpenter/joiner	2	\$9,000.00
carpenter/metalworker	1	\$3,000.00
concretor	3	\$64,200.00
concretor/plumber/drainier	1	\$1,300.00
consultant team	1	\$5,000.00
drainer	1	\$15,000.00
electrician	6	\$18,000.00
electrician/carpenter/joiner	1	\$5,000.00
fencer	1	\$12,500.00
general/general labour	6	\$34,900.00
glazier	7	\$136,950.00
interpretation	1	\$2,500.00
joiner	1	\$11,000.00
kitchen specialist	1	\$50,000.00
landscaper	2	\$1,050.00
mason	4	\$56,000.00
mason/carpenter	1	\$11,000.00
mason/plasterer	1	\$5,000.00
mechanical	7	\$71,000.00
metalworker	11	\$37,000.00
metalworker/carpenter	3	\$10,700.00
metalworker/mason	2	\$3,000.00
painter	3	\$2,300.00
pavior	15	\$65,100.00
pavior/drainier	6	\$37,350.00
plasterer	1	\$2,500.00
plumber	1	\$4,000.00
plumber/drainier	21	\$104,900.00
roofer	5	\$20,250.00
RTBG	1	\$2,500.00
signwriter	6	\$10,800.00
structural engineer	1	\$1,000.00
Total	139	\$901,500.00

Table 4.2 Number and Cost of Catch Up Maintenance Items by Trade



Table 4.2 indicates that the number of items ranges from 1 to 20 per trade with the most items being those for:

plumber/drainer (21)
 pavior (15);
 carpenter (12); and
 metalworker (11).

On a cost basis, Table 4.2 indicates that the major expenses are in the areas of:

glazier (\$136,950 over 7 items);
 plumber/drainer (\$104,900 over 21 items);
 mechanical (\$71,000 over 7 items);
 pavior (\$65,100 over 15 items); and
 concreter (\$72,700 over 4 items).

When the pavior items and the pavior/drainer items are combined that amount totals to \$102,450 over 21 items. When the carpenter and carpenter/joiner items are combined that total amounts to \$58,700 over 14 items.

Major singular items by trade include kitchen specialist (\$50,000) and bricklayer (\$20,000).

The following sections give a brief description of the catch-up and cyclical maintenance requirements.

4.2 AN OVERVIEW OF THE CATCH-UP MAINTENANCE REQUIREMENTS

Amongst the issues identified, the highest priority for catch-up maintenance (P1) has been assigned to:

- substantive upgrading of strategically important buildings including:
 - the Conservatory (B22) (which requires urgent works to resolve rising damp issues);



the Fernery (B9) (which is in need of refurbishment or replacement with specific attention to access issues);

the Cactus House (B23) (within which there are access and risk concerns);

- upgrading of strategically important elements of the path network such as:

where the standard of presentation and/or access is impeded [such paths include the major east-west link path from Pete's Patch to the boundary (visual) (P7c), the east-west link path below the Conservatory (visual) (P16b), the footpaths adjacent to the lower toilets (access and visual) (P17) and the initial section of path leading from the lower car park to the 'eastern section' (visual)] (P14c);

the removal of the over-steep and uneven steps/path through the rhododendron collection (risk management); and

improvements to the foreshore footpath (risk management) (P40c);

- modifications to strategically important elements of the stormwater system including:

replacement of existing stormwater pipe from Government House running along the Eardley Wilmott Wall to Path 16 (see Path 14 for details) and additional inter-linking stormwater infrastructure further to the east to service the Gardens in this area:

improvements to the drainage at the front entry to the Visitor Centre to eliminate ponding (P32);

the replacement of a number of trench grates which pose access problems because of their set down below surrounding surface levels (numerous); and

the installation of appropriate stormwater devices (trench grates, water bars, open drain, etc.) where the path main northern path (P22) intersects with the gravel path from the Pinetum (P30) and the links to the pond, Tasmanian Section, etc. (P31);



- urgent maintenance to strategically important features including elements:

within the Japanese Garden (P8) such as the handrails and the arched bridge (critical to the preservation of the asset);

within the French Memorial Fountain Garden (P9) such as the need to properly enclose the exposed electrical cable (risk management), reduce the level of noise generated by the pump (presentation) and to replace the handrails around the pond (risk management);

main entry car park where the stairs from Lower Domain Road (P10) to the main gates are unsafe (risk management – note these works are currently planned and budgeted for); and

the entry ramp to the Pavilion 'Wombat 1' (B6 and P22) which has settled and requires repair to eliminate a trip hazard (risk management);

- urgent elimination of other significant risks including:

removal of disabled access signage from the lower car park (P18) and new signage which redirects disabled people away from this area to the main entry car park (coupled with this action should be the reallocation of parking spaces in the main car park for this purpose);

construction of an access hatch over the stormwater junction pit at the head of the main drainage line above the pond to prevent accidental entry and to reduce the fall hazard which is present at the moment (risk management) (P24);

removal or reconstruction of the pergola at the head of the steps to the Anniversary Arch (these works are already programmed and budgeted for) (P36); and

provision of a handrail(s) to the stairs leading down from the pond through the Anniversary Arch (P36);



- modifications to building elements to protect their conservation values and/or operational integrity including:

further conservation of the Eardley Wilmot Wall including provision of new agricultural drainage, removal of cement render, application of sacrificial render and re-pointing in lime mortar (B34); and

works to address rising damp issues in the Administration Building (B21) including removal of sections of the hard paving against the southern and eastern wall of the building and installation of new drainage measures to the Depot area above the building;

- consideration of building adaptations to meet strategic requirements (existing or potential) including:

provision of a passenger lift within the Visitor Centre (B1)²⁶;

air conditioning of the lower level of the Visitor Centre (B1) (required for protection management of key archival documents, the library and plant specimens);

air conditioning of the Restaurant and Kitchen and provision of new kitchen extraction hoods to the kitchen (B2);

resolution of the future adaptation or removal of the Easy Access Garden Roundhouse (B9) and associated garden benches, beds, and structures to ensure that current access standards and functional requirements are met;

- replacement of essential plant, equipment and vehicles which are at the end or near the end of their working lives including:

the rotary tiller hoe (Inv. No. 151);

the dumpy rough rider (Inv. No. 7001);

a tractor (Inv. No. 7004); and

the tip truck (Inv. No. 7008).

²⁶ The lift may or may not be required depending on the outcomes of the proposed master plan.



4.3 AN OVERVIEW OF THE CYCLICAL MAINTENANCE REQUIREMENTS

In terms of cyclical maintenance, the main activities that have been considered in the data sheets (Appendices C-D) are:

servicing of roof drainage systems (gutters, downpipes, flashings, etc.);

servicing of mechanical plant (pumps, air conditioning, heating, generators, etc.);

maintenance of glasshouses including cleaning, glass treatments (placement/removal whitewash) and replacement of broken/damaged glass;

repainting/re-finishing;

maintenance of sanitary drainage (cisterns, drains, grease traps, etc.);

the stormwater and irrigation systems which are to be maintained in their current operational state until such time as the proposed comprehensive Water Audit (Section 3.5) is conducted (note that minor modifications may be required to enhance performance or to rectify minor problems as they emerge);

the annual cleaning of all stormwater fixtures is required; and

seats and signs which require annual inspection to rectify problems as they emerge.

A number of substantive items are leased. A figure of \$54,000 per annum has been allowed within Table 4.1 for these items.

Replacement of IT equipment is also required on a cyclical basis. Table 4.1 shows a rate of \$8500 per annum which is approximately 1/3 of the cost of the existing IT equipment.



CHAPTER 5

MATTERS OUTSIDE THE SCAMP

5.1 THE STRATEGIC MASTER PLAN...

Investigations and stakeholder consultation carried out as part of the current study identified a range of strategic issues that are best dealt with through a Strategic Master Plan for the Gardens. Such issues include:

noise management along the Domain Highway;

the need to redesign the Training Rooms (B7) to gain better commercial advantage from the educational role of the Gardens;

the need for a return walking track from the northern section of the Gardens to enhance the experience of that area and to improve accessibility and reduce risk concerns for shared usage of the existing track;

improvements to the layout of the foyer and the shop of the Visitor Centre (B1) to improve the staffing situation there, particularly in low season;

the need for safer pedestrian access within the main car park (P10) and potentially for the redesign of the road junction to improve safety;

the need for new paths which might be identified by the proposed Access Strategy;

improvements to the lower car park (P18) to create disabled access which meets current Australian Standards and to the lower entry (P20) generally to present a better appearance; and

re-design (and/or relocation) of the Easy Access Garden (P6) to reflect current best practice in horticultural therapy and disabled gardening.

5.2 ... AND BEYOND

The current study has identified some issues that are beyond the life of the current plan (e.g. 5 years) but which may require planning during the following 5 years to enable prompt attention to the matters as they arise. Such matters include:

the need to address longer term issues such as the replacement of the Sub-Antarctic House (B2) which was built as a prototype with a limited lifespan;

the deterioration in the 'Buckner' portions of the irrigation system (if no action is taken immediately in response to the Water Audit (Section 3.5); and

the likely need to replace a significant portion of the boundary fence along the Domain Highway (F2b) (if it is not replaced as part of the catch-up maintenance in association with the current study).



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