



UCT HERITAGE PARK MANAGEMENT FRAMEWORK

Draft Final Report

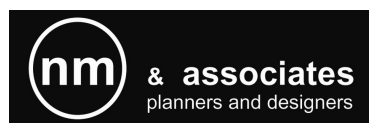
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and



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1 INTRODUCTION

The Department of Properties and Services, University of Cape Town (UCT), appointed environmental consultants Marlene Laros and Associates to undertake a (non-statutory) basic assessment process towards finding consensus on an approach to the management of the UCT Forest area. The issues pertaining to management of the vegetated backdrop to Upper Campus on the lower slopes of Devil's Peak have been under discussion at UCT for almost a decade and it appears that forward progress has to date been hampered by, amongst other, a lack of consensus and conflicting approaches to forest management within the UCT community.

After numerous reports, investigations and discussions at UCT, the Physical Planning and Landscape Subcommittee (PPLSC) recommended in its 2007 annual report¹ that the Cluster Pines (an invasive alien species) should be removed, due to their condition and invasive nature, and replaced by an indigenous forest on the western flank of Upper Campus; while the Stone Pines on the northern flank should be supplemented with further planting of Stone Pines, in order to maintain the tree canopy backdrop to the campus buildings. At a subsequent meeting of the University Building and Development Committee (UB&DC), the PPLSC recommended that a strategy around public interest in the forest regeneration needed to be developed.

1.1 Background to the study

The UCT Forest area, to the west and north of the Upper Campus (Figures 1 and 2) is made up of two precincts: the current forest and dam areas. These land portions forms part of a larger landscape that spreads into the adjacent Table Mountain National Park (TMNP), as does the Groote Schuur Estate bequeathed by Rhodes². The forest has not been proactively managed and many trees are senescent, requiring urgent intervention to reduce risk in terms of general safety and fire management. UCT's current forest management regime removes senescent Cluster Pines on an *ad hoc* basis, when funds become available.

During the early stages of the study, the team and stakeholders conceptualised removing all senescent trees and invasive species (Cluster Pines, Wattles, Gums (*Eucalyptus* spp.) and other invasive alien species); followed by replanting with indigenous- and/or appropriate non-invasive exotic trees, such as Stone Pines, to enhance the vegetated backdrop to the campus. These actions would be implemented through cooperation with the TMNP to ensure that there is a coherent approach to the landscape management within the context of UCT and the Groote Schuur Estate.

This study has, together with stakeholders, undertaken a situational analysis; developed an overarching management framework, incorporating a vision, mission and strategic outcomes; compiled a spatial concept for the UCT Forest area; and, also presents a set of recommendations for implementation of the Framework and the Spatial Concept. It is intended that a future phase of work will involve the development of a detailed landscape management plan. It is also proposed to brand, or rename, the forest and dam precincts under the title: UCT Heritage Park.

¹ The annual report was adopted by the University Building and Development Committee (UB&DC).

² The history of the estate and the forest is well documented in various sources including the Groote Schuur Estate: Conservation and Development Framework (CNdV 2002).



Figure 1: Aerial view of the context of the UCT Heritage Park consisting of the Forest and Dam Precincts

Various concepts for generating funding were mooted at the outset of this project. These included creating an Endowment Fund for attracting funding for landscaping the area. The university could attract donations for example, for trees in a memorial forest; or, to celebrate other events. These donations would augment an Endowment Fund with interest income being allocated to landscaping maintenance and regeneration, with an emphasis on the heritage landscape. Project proposals and alternatives thus incorporate this rationale or principle of funding for landscaping where possible. The potential commercial value of mature trees, to fund UCT Forest regeneration, has also been investigated (refer to Appendix 1).



Figure 2: Aerial view of the University of Cape Town campus showing the Forest and Dam Precincts.

1.2 Site description

The site assessed is part of the University of Cape Town's Upper Campus, built on the lowest portions of the eastern slopes of Devils Peak and adjacent to the TMNP, which is a World Heritage Site³. The site, covering approximately 15.6 ha, comprises the land above Ring Road referred to in this document as the Forest Precinct and the area to the north of the ring road referred to as the Dam Precinct. Portions of the site are presently zoned as Community Facility along with the remainder of the Campus. Portions around the Dam are zoned Public Open Space, as is the adjacent SANParks land. Ownership of the portion associated with the Forest site is unclear, the assumption being it is state owned along with the land immediately up the slope presently managed by SANParks on behalf of the Department of Public Works who administer the Rhodes Devolution Act 9/1910) which gives guidance in terms of the conditions set out in Rhodes' Will. The portion around the dam is owned by the University of Cape Town.

The western part of the forest comprises mainly invasive Cluster Pines (*Pinus pinaster*). Other large specimens found in the forest include Monterey Pine (*Pinus radiata*) and Blackwood (*Acacia mearnsii*) both declared invasive alien species.

1.3 Terms of reference

This assessment comprises an evaluation of issues and incremental alternatives, with limited specialist studies. This Final Report should enable an 'in principle' decision to be taken by the

³ TMNP is one of eight components of the Cape Floral Region Protected Areas World Heritage Site.

University and provide the framework for the preparation of a 'Forest Regeneration and Management Plan'. The scope of work was:

- Review the legal, policy and planning context;
- Identify relevant stakeholders, mostly within the UCT community, including any authorities to be consulted. These would include but not be limited to TMNP, Heritage Western Cape, the City of Cape Town;
- Describe the proposed forest regeneration activity and potential impacts on the environment;
- Describe/discuss the need and desirability of the proposed activity;
- Develop a participation strategy for the identified stakeholders, aligned with any UCT participation policies;
- Undertake these participation activities according to the agreed plan;
- Identify important characteristics of the affected environment (baseline study);
- Identify significant issues to be examined in the assessment procedure;
- Where necessary identify any alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity;
- Obtain inputs and recommendations from specialists where appropriate/necessary;
- Assess the significance of any environmental and social impacts, including cumulative impacts;
- Propose any environmental management and mitigation measures in broad terms, to inform the subsequent Forest Regeneration and Management Plan;
- Issue a Draft Report to stakeholders comment;
- Respond to comments and report on the issues raised and the responses in the Final Report; and,
- Submit a Final Report to the PPLSC and UB&DC for consideration and decision.

1.4 Study process

This study was intended as a voluntary rather than statutory process. In summary, the following process is being followed:

Stage One: Situational Analysis & Strategic Management Framework:

Synthesise relevant information; present a baseline assessment of the forest; and, undertake an analysis of existing views and opinions regarding the vision, purpose and management outcomes for the UCT forest. A Strategic Management Framework will articulate the principles and performance criteria for the management of the UCT forest.

Stage Two: Spatial Concept and Alternatives:

Compile a spatial framework and alternatives in consultation with relevant stakeholders.

Stage Three: Assessment, Evaluation and Recommendations:

Assess and evaluate the spatial concept and any alternatives against the Strategic Management Framework in consultation with relevant stakeholders and compile and finalise the report and recommendations.

Following on from this study, the next phase of work will be to compile a Forest Landscape Regeneration and Management Plan, to be drafted by a landscape architect, with detailed specifications for implementation and management.

1.5 Purpose of this document

This report presents the outcomes of the study: the findings situational analysis, the proposed Management Framework, the Spatial Concept and recommendations. It provides the basis on which an 'in principle' decision to be taken by the University on the management approach for the area provides the framework for the preparation of a 'Forest Regeneration and Management Plan' or Heritage Park Management Plan can be built.

2 LEGAL, POLICY AND PLANNING CONTEXT

An array of legislation, policy and planning guidelines provides the context within which any process may continue. The following section provides a review of the existing situation.

2.1 National legislation, policy and planning

Specific legal requirements relevant to this project should inform the choices made for any development proposals that affect the site. Those pertaining to ecologically sensitive environments (i.e. the Vulnerable⁴ Cape Winelands Shale Fynbos vegetation type and the watercourses) are discussed briefly below. The discussion is not exhaustive but is intended merely to provide incentive to sustainable development decisions. All legislation referred to below is taken "as amended". The following summarises the relevant National level legislation as it pertains to the UCT Heritage Park.

2.1.1 The Constitution (Act 108 of 1996)

Section 24 of the Constitution contains broad provisions concerning environmental rights and states obligations to enforce them. For example, watercourses and wetlands are essential to ecological or ecosystem health, which imposes an implied mandate on all organs of State to take reasonable steps to ensure watercourse and wetland health.

2.1.2 The National Water Act (Act 36 of 1998)

The primary purpose of this Act is to manage and control the Republic's water resources. Relevant to watercourses are:

- Facilitating social and economic development;
- Protecting aquatic and associated ecosystems and their biological diversity;
- Reducing and preventing pollution and degradation of water resources; and
- Meeting international obligations.

The use of land is also controlled by the Act, which regulates activities that degrade watercourses and wetlands. Landowners and users thus have an obligation not to degrade watercourses, and prescribe certain measures to prevent such degradation.

⁴ The status of this vegetation type has been amended to "Vulnerable" rather than "Endangered" by the 2011 published list of threatened ecosystems (Government Gazette 34809 of 9 December 2011, National List of Ecosystems that are threatened and in need of protection, Notice 1002). The ecosystem status for this vegetation type has been allocated on the criterion of Irreversible loss of habitat (Criterion A1), within the threshold of $\leq 60\%$ natural habitat remaining.

2.1.3 The National Environment Management Act (NEMA) (Act 107 of 1998)

This Act regulates various aspects of natural resource use, integrating environmental management and pollution control. Its definition of the environment includes the land and water of the earth, micro-organisms, plant and animal life or a combination of those things, and the inter relationships among them.

The Act has a number of national environmental management principles, which apply to the actions of all organs of State that may significantly affect the environment. For the purposes of wetland conservation and rehabilitation, the following principles should apply:

- Development must be socially, environmentally and economically sustainable.
- Sustainable development requires the consideration of all relevant factors including the following:
 - ★ That the disturbance of ecosystems and loss of biological diversity be avoided, or where they cannot be altogether avoided, are minimized and remedied;
 - ★ pollution and degradation of the environment are avoided, or where they cannot be altogether avoided, are minimized and remedied;
 - ★ development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardized;
 - ★ a risk-averse and cautious approach is applied, taking into account the limits of current knowledge about the consequences of decisions or actions;
 - ★ negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimized and remedied;
 - ★ the cost of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects must be paid for by those responsible for harming the environment; and
 - ★ sensitive, vulnerable, highly dynamic or stressed ecosystems require specific attention in management and planning procedures, especially where they are the subject of significant human resource usage and development pressure.

An important provision of the Act relating to watercourse and wetland conservation and/or rehabilitation relates to the duty of land owners to rehabilitate degraded environments. For example the provisions impose a primary obligation on land owners to rehabilitate degraded watercourses and wetlands on their property.

2.1.4 The National Environmental Management Biodiversity Act (NEMBA) (Act 10 of 2004)

NEMBA specifies that actions must be taken to identify ecosystems that are threatened. The National Spatial Biodiversity Assessment (Driver et al 2004) identified the status of national vegetation types and the EIA Regulations and processes provide a means of monitoring and controlling development in these ecosystems. Section 73 of NEMBA further specifies that steps must be undertaken by the landowner to control and eradicate listed invasive species and prevent them from spreading.

In terms of the 2010 EIA Regulations, Listing Notice 3 (List of Activities and Competent Authorities Identified in terms of Sections 24(2) and 24D), it is unlikely that the envisaged Forest Regeneration plan will require an EIA. The area falls within a vulnerable ecosystem listed in terms of section 52 of the NEMBA. The 'activity' description (12) only includes clearance of an area of 300 m² or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation (in an Endangered or Critically Endangered ecosystem). In the case of vegetation clearing for the

purpose of implementing the concept of the 'UCT Heritage Park', this threshold will not be met, and the ecosystem status of the vegetation type has been amended to "Vulnerable".

2.1.5 The Conservation of Agricultural Resources Act (CARA) (Act 43 of 1983)

Sections 15A to C of the amended CARA Regulations deal with, amongst other, the control of weeds and invader plants. The implications are that all declared invasive aliens and weeds will need to be removed and controlled.

2.1.6 The National Veld and Forest Fire Act (Act 101 of 1998)

This Act places obligations on Landowners to be proactive in preventing the spread of fire from their own land. Section 12(1) states "Every owner on whose land a veldfire may start or burn or from whose land it may spread must prepare and maintain a firebreak on his or her side of the boundary between his or her land and any adjoining land."

2.1.7 The National Heritage Resources Act (NHRA) (Act 25 of 1999)

The NHRA and the Provincial Heritage Ordinance (promulgated in terms of the NHRA) empower local authorities, with conditions, to formulate by-laws for managing local heritage resources, or other higher order heritage resources where a responsibility may be delegated. The Act defines a heritage resource as "any place or object of cultural significance."

2.1.8 The Rhodes' Will (Groote Schuur Devolution) Act (Act 9 of 1910)

This act provides for "*... the surrender of the Groote Schuur Estates to the Government of the Union of South Africa in accordance with the Will of the late Cecil John Rhodes and for the release of the Trustees thereunder from all responsibility in connection with the said Estates and for other purposes.*"

The Act is currently used exclusively for the control and development of Groote Schuur Estate (and part of Tokai forest). The Act bestows upon the Prime Minister of South Africa the rights to reside in the manor house and open part of the grounds for a public park. It also provides for the protection and conservation of the whole property. The whole of the Groote Schuur Estate was handed into the custody of the State.

2.2 Provincial legislation, policy and planning

2.2.1 Western Cape Land Use Planning Ordinance (LUPO) (Ordinance 15 of 1985)

The LUPO (soon to be replaced by the finalisation and implementation of the proposed Western Cape Land Use Planning Act⁵) underpins much of the planning and development in the Province, and many of the guidelines, frameworks and strategies for the City of Cape Town are developed in terms of the LUPO.

2.2.2 The Western Cape Provincial Spatial Development Framework (PSDF)

Amongst other, the PSDF Rural Guidelines (2009 Draft) provides the following regarding the preservation of attributes on urban edges:

Sense of place:

- Response to landscape context

⁵ Presently a Bill ([www.westerncape.gov.za/other/2012/2/western_cape_land_use_planning_bill_2012_\(15_february_2012\).pdf](http://www.westerncape.gov.za/other/2012/2/western_cape_land_use_planning_bill_2012_(15_february_2012).pdf)) published 15 February 2012.

- Sensitivity to spiritual qualities of rural areas

Sense of history:

- Sensitivity to cultural landscapes
- Response to rural settlement patterns and built vernacular

2.3 Local legislation, policy and planning

Three different local scales apply. These are the City of Cape Town, the landscape of the TMNP and the UCT planning domain.

2.3.1 Cape Metropolitan Area: Guide Plan (Urban Structure Plan), 1988

The Guide Plan indicates that the site is for Government Use although its status - post approval of the CTSDP (2012) - is presently not certain, or at least may require clarification. The location is, however, noteworthy being on the interface of the formally protected Table Mountain National Park, a component of the Cape Floral Region Protected Areas World Heritage Site.

2.3.2 Metropolitan Spatial Development Framework (MSDF), 1996

The MSDF aims to direct and manage the form as well as the location of physical development in the Cape Metropolitan Area. The MSDF regards the mountain as having key scenic and landscape qualities. All developments on the mountain reserve interface need to adhere to the guidelines related to the interface condition along the urban edge (or fringe) and ensure that the scenic and landscape qualities are not compromised.

Proposals for the site should therefore adhere to the Urban Edge guidelines put forward by the City of Cape Town. See below for more details. The Cape Metropolitan Open Space Strategy (CMOSS) of which the site is a part, is an important informant of the overall framework.

2.3.3 CMOSS: An Open Space Strategy for the City of Cape Town (CMOSS) (2005)

CMOSS, initiated at the time that the MSDF was conceptualized, ensures that the open spaces, within the metropolitan area and beyond, are able to be conceptualised as a single system. It was a key informant of the MSDF and is still used at a conceptual level to structure large scale frameworks for the Metropolitan area. Linkage between the spaces is therefore vitally important. The multi-functionality of spaces is also seen to be important as this facilitates resource sharing, integrated management strategies and by default, the integration of communities. It also has positive implications such as extended activity periods through which passive surveillance can be increased. The strategy focused on place-making to facilitate an increased focus on the qualitative versus quantitative performance of open space. More specifically, it focused on open space as a core component of the urban environment. The bottom line expectation is that CMOSS configuration, design and management should be ecologically, economically and socially sustainable.

The Open Space Strategy intended to take what work had been done on CMOSS further but has since been partially absorbed into the City's Biodiversity Network (Laros and Benn 2007) to ensure the protection of key vegetation types and natural systems.

In the draft CMOSS (Figure 3) the site is categorised as having medium significance. What is more important is that the site is part of a larger "green" connection between the lower slopes of the

mountain, Liesbeek River corridor and Rondebosch common. The site is also importantly not distinguishable from the rest of campus which is perceived to be green.



Figure 3: The site and broad locality as represented in the Draft CMOSS

2.3.4 The Scenic Drive Network: Management Plan: February 2002

Rhodes Drive is a component of the Scenic Drive network, which traverses an area regarded as having significant cultural and scenic value. The Management Plan provides guidelines related to the road envelope and the broader area. Specific reference is made to the tree canopy. It is recommended that mature and (non-invasive) exotic trees and new stone pines (and oaks where appropriate) be planted to replace senescent specimens to retain the unique quality of landscape. This document is used to guide the City of Cape Town when development applications associated to sites adjacent to the network are submitted for comment.

2.3.5 Cape Town Spatial Development Framework, 2012 and the Spatial Development Plan: District H – Final Draft, 2011

The City of Cape Town has compiled eight district spatial development frameworks – one for each of the City’s Planning Districts and one of which is the *Southern District Plan (District H): Spatial Development Plan and Environmental Management Framework*. It is the intention that the plans will be used as structure plans under the Land Use Planning Ordinance (LUPO) (section 2.2.1), providing spatial direction and guidance to the City of Cape Town’s Spatial Development Framework (CTSDF) which has been recently approved as a structure Plan.

Proposals in the relevant District Plan which should be taken note of include the following:

- The CTSDF highlights the site for ‘Urban Development’ although any application for a change in land use rights would have to go through the necessary statutory processes given its natural role and historic role as part of the mountain backdrop to key build landscapes but in addition its location on the urban edge;
- The Southern Peninsula District is one of the most important from a biodiversity perspective and the CTSDF framework sets out a number of land use management guidelines, an important one being that the City of Cape Town needs to lead in protecting and enhancing biodiversity, seeking to meet the National Biodiversity Targets Map. While the site itself is not identified as part of the Core Conservation worthy sites, or the City of Cape Town’s Biodiversity Network, it is adjacent to the TMNP and therefore has a responsibility to help monitor and maintain the condition of the TMNP;
- The EMF suggests that any development on the site must conform to the City of Cape Town’s management of Urban Stormwater Guidelines amongst others as the site contributes to the productivity of the Aquifer. Furthermore all activities contemplated within the Hydrological zone must be supplemented with activities as contained in the City’s Floodplain and River Corridor Management Policy (2009);
- The site is surrounded by a number of important cultural destinations including Provincial Heritage Sites and NHRA protected sites. Rhodes Memorial is the most significant in terms of the numbers of visitors it attracts. The site must therefore acknowledge its role as a backdrop and support to these significant architectural monuments and landscapes. It should comply with the SANParks Table Mountain National Park Conservation Development Framework as well as the South African Heritage Resources and the City’s Heritage Resources Section Requirements due to its proximity to the Park and its role over time in relation to the Park; and,
- The District SDF is shaped by a set of key strategies, one of which is based on the idea of balance between the needs of the environment and needs of the communities who reside along the peninsula. The central spatial idea giving meaning to this is that the TMNP and environs must be protected as a major urban anchor, the mountain (TMNP) being the single biggest tourism asset in the region. The implications of this are that the mountain must be conserved, and that the publicly and privately owned areas adjacent to the TMNP must be managed to facilitate this where possible.

The 2011 Draft of the Southern District SDP categorises UCT as “Structuring Open Space” providing the following District Development Guidelines for Sub-District 3 (which includes UCT):

- In general, avoid development of these areas in a manner that would compromise open space linkage.
- Encourage development to respond to and promote opportunities for linkage between identified structuring open space in developed areas. (e.g. between the Langvlei and Keysers River via the Retreat Station area).
- In general, development adjacent to open spaces, or which rationalises these spaces, should be orientated towards the open space to encourage the use and passive surveillance of these areas. Design which compromises this condition (e.g. excessive blank walls and backing of development onto these spaces) should be discouraged.
- Subject to contextual informants, medium density development (e.g. 2/3 storey development) along open space interfaces could be considered to improve passive surveillance.
- Safety and security should be considered in the upgrading, landscaping or development of public open spaces.

- Where contextually appropriate, consider commercial activities such as small cafes, kiosks and restaurants that will enhance the open space.
- Where feasible, opportunities for low impact sustainable use of open spaces, by local communities, should be considered (e.g. small scale urban agriculture) but this should take into account the wider access / linkage needs and public open space provision requirements.

The Southern District Final Draft SDP-EMF (2011), provides informants for desirable and undesirable land-uses for various spatial planning categories. Table 1 is extracted from this document.

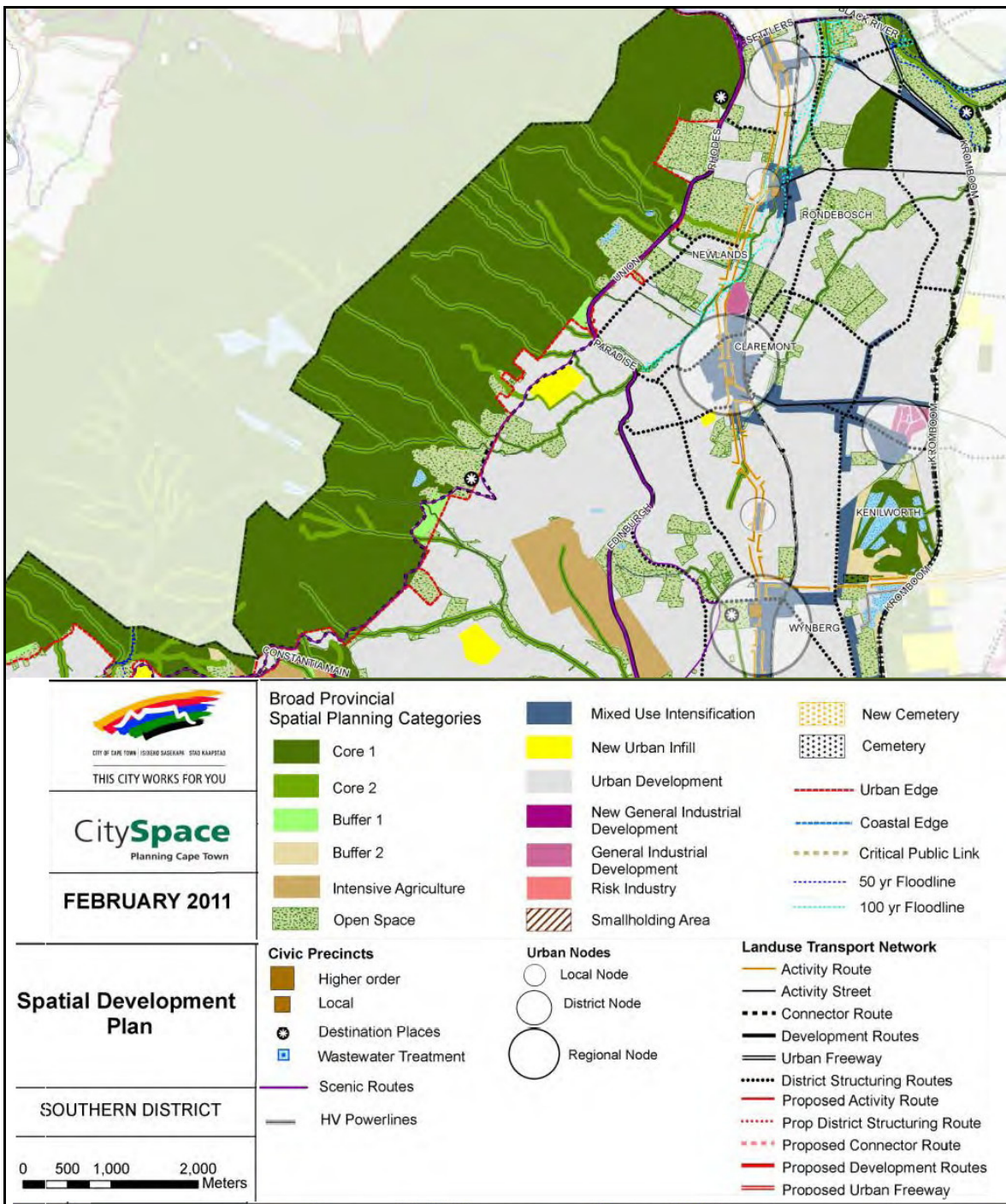


Figure 4: Extract from the Southern District SDP: Composite

Table 1: Environmental Impact Management Table: Cultural and Heritage areas – adapted from the City of Cape Town SDP –EMF Final Draft (2011).

Environmental attributes	Kinds of developments, land uses or activities that would be undesirable	Kinds of developments, land uses or activities that may have a significant impact	Kinds of developments, land uses or activities that may not have a significant impact	Relevant policy and guideline documents for environmental management
Structuring Open Spaces <i>This zone includes structuring public open spaces (which are significant at a district scale and play a role in structuring the area).</i>	<ul style="list-style-type: none"> Waste disposal activities (including WWTW). Mining activities. Industrial activities. Residential development. 	<ul style="list-style-type: none"> Limited commercial activities. Institutional activities (museums, churches etc.). Tourism facilities. Establishment of cemeteries. Sustainable harvesting of natural resources. 	<ul style="list-style-type: none"> Conservation related facilities or infrastructure. Public open space areas with appropriate recreation activities. Essential engineering services relating to outfall sewers and storm water systems. Road, rail, pipeline and cable crossings and bridges. 	<ul style="list-style-type: none"> City of Cape Town’s draft CMOSS Strategy City of Cape Town’s Management of Urban Stormwater Impacts Policy (2009) City of Cape Town’s Floodplain and River
Scenic Routes <i>e.g. Chapman’s Peak Drive, Ou Kaapse Weg, Rhodes Drive, Rhodes Avenue, Van Der Stel Freeway; Edinburgh Drive, etc.</i>	<ul style="list-style-type: none"> Activities which compromise or restrict views. Activities inconsistent with the landscape / townscape. Outdoor advertising. Inappropriate road works – including changes of surface, widening and edge treatments. Inappropriate signage, street furniture Removal of trees and mature landscaping 	<ul style="list-style-type: none"> Dependent on section of road. Suitable activities should be congruent and sympathetic to landscape / townscape. Service stations 	<ul style="list-style-type: none"> Improvement of landscaping and opening of views 	<ul style="list-style-type: none"> DEA&DP’s Guideline for Involving Heritage Specialists in EIA Processes (2005) DEA&DP’s Guideline for Involving Visual Specialists in EIA Processes (2005) DEA&DP’s EIA Guideline Series: Guideline for the Management of Development on Mountains, Hills and Ridges of the Western Cape (2002)
Urban Conservation / Heritage areas <i>This zone includes existing and proposed urban conservation / heritage areas.</i>	<ul style="list-style-type: none"> Any alterations, additions, new structures or landscaping unsympathetic to protected buildings or the general character of area. Mining related activities and infrastructure. Transmission towers and base stations Inappropriate roadworks – including changes of surface, widening and edge treatments. In appropriate outdoor advertising In appropriate street furniture and 	<ul style="list-style-type: none"> Dependent on specific area. Suitable activities should be congruent and sympathetic to landscape / townscape. Institutional facilities (education, museums). Tourism and hospitality facilities. Engineering and utility services. Essential road, rail, pipelines and cables. 	<ul style="list-style-type: none"> Residential and commercial activities provided ... in keeping with the character of the area. Sub-division and densification that is not materially changing the character of the area. Appropriately scaled, sited and designed engineering and utility services, road, rail and pipeline cables. Restoration and conservation of historical buildings and infrastructure. Public open space. 	<ul style="list-style-type: none"> City Of Cape Town Scenic Routes Management Plan City Of Cape Town Heritage Resources Strategy City of Cape Town Heritage Resources Section series of guidelines for development SANPark’s Table Mountain National Park Conservation Development Framework 2006-2011 (2008) Scenic Drive Network Plan

2.3.6 Draft Cape Town Development Edge Policy, August 2009

The draft Cape Town Development Edge Policy (August 2009) was developed in response to the existence of a plethora of documents and guidelines that had been adopted and used since 2001. The Urban Edge Policy for the City (adopted in 2001) comprised four geographically specific policies, the relevant one for this site being that for the “Peninsula”. This was supplemented by the Urban edge Guidelines Manual (approved in 2004). This incorporated Veldfire-Related Planning Guidelines that deal with the spread of fire on properties adjacent to the periphery of the City, which is of particular relevance to the UCT Heritage Park.

The Development Edge lines now reflected in the SDF and District SDPs & EMFs discussed below, will be approved as section 4(6) and 4(10) structure plans respectively (in terms of the Land Use and Planning Ordinance, 1985) by the Provincial Government Western Cape. This implies that any amendment to the Urban Edge lines will have to follow the procedure for amending a 4(6) structure plan.

The Development Edge Policy states the following in relation to land use management of sites on the Urban Edge:

“All development applications on the Urban Edge will need to be reviewed by the City in terms of principles set out in the Urban Edge Guidelines Manual as well as the Veldfire Related Planning Guidelines Manual to be found as Annexure 6 in the Manual. The following are some of the relevant issues to bear in mind when first putting together proposals for sites on the urban edge:

- Vacant and under-utilised land within existing urban areas should be serviced before that on the periphery;
- Settlement forms on the periphery need to respect the landscape;
- Low intensity land uses, that can facilitate the function of the area as a buffer in protecting agricultural and conservation land from the impacts of urban development needs, are more optimal than those that do not;
- Continuation of open space systems related to riverine corridors, which can in turn facilitate connection between catchments and the coastlines, must be facilitated; and,
- Establishment of public private partnerships for land use monitoring and services provision should be explored where possible.”

The Guidelines Manual further sets out a number of specific considerations for planners to consider when assessing applications on sites adjacent to the Urban Edge Line. These serve as a useful guide for owners of land in the transition zone who wish to develop responsibly. They are as follows:

- Are the proposals desirable from a public benefit and desirability perspective?
- Do the proposals have cost implications for the City Council or society?
- Is the site visually exposed?
- Does the site contribute to the continuity and sustainability of aquatic or terrestrial ecological corridors?
- Is the site adjacent to a protected or productive landscape?
- Is the site in close proximity to a scenic route or in the vicinity of a landmark?
- Is it close to a special place or significant urban/topographical element?
- Is it in, or in close proximity to, the green structure and are there potential fire hazards?

The implications for any development of the site according to this set of questions is considerable given its location in relation to Rhodes Drive (a scenic route); Rhodes Memorial; the rest of the UCT Campus (parts of which have heritage value); the broader Groote Schuur Estate (which also has heritage value) and the TMNP. The site is also generally visually prominent, in particular from Rondebosch.

Fire is a great threat on the lower slopes of the mountain and the site's buffer role between TMNP and UCT Campus will have to guide the nature of any proposals for the site, especially where these are associated with the existing forest.

Guidelines from the Veldfire Related Planning Guidelines, which are of specific relevance to the site, include the following:

- Avoid cul de sacs, but if this is impossible then provide turning circles that can accommodate emergency fire fighting vehicles. (The guidelines suggest that one could use the existing gravel road as a fire track but it would need to be formalised to provide an improved surface, parking and turning circle/s);
- Consider the impact of restricted access mechanisms such as booms on potential fire fighting emergencies;
- When intentionally reducing fuel loads on site, follow recommendations in the document; and,
- Consider the post-fire effect that stormwater will have on the site and, where appropriate, apply the management objectives and actions from the City of Cape Town's, Stormwater Management Guidelines on Slopes adjacent to Natural Areas (section 2.3.16).

The Veldfire guidelines include a contextualised interpretation that highlights key problems, issues, etc. which are associated with properties bordering the TMNP. The document recommends that UCT prepare a Fire Management Plan. In conclusion, proposals for the site should therefore ensure the following:

- That any further built development be low intensity incorporating only low bulk structures that do not intrude on the visual quality of the mountain backdrop; and,
- That fire protection measures to reinforce the site as a buffer between urban environment and conservation area inform proposals. This will include amongst other things the clearing or thinning of invasive vegetation (that is not deemed to be of heritage/cultural value).

2.3.7 The City of Cape Town's Integrated Metropolitan Environmental Policy (IMEP): Cultural Heritage Strategy (2005)

The City of Cape Town formally adopted the first Integrated Metropolitan Environmental Policy (IMEP) in 2001, along with its implementation strategy, the Integrated Metropolitan Environmental Management Strategy (IMEMS), which requires that the City develop detailed sectoral strategies to meet commitments made in the sectoral approaches by giving effect to environmental principles in IMEP. Cultural Heritage is one of the sectoral approaches of IMEP and the City has committed itself to 'ensuring that the diverse cultural heritage of the City of Cape Town is protected and enhanced', which includes:

- Recognising the rich cultural history of the City of Cape Town
- Including cultural values, sites and landscapes of historic significance, areas of scenic beauty and places of spiritual importance in planning and decision-making.'

2.3.8 Groote Schuur Estates Landscape Management Plan (LMP) 1992

The brief for this 1992 LMP required the team⁶ to produce a management plan for the Upper Estates only i.e. those estates above Rhodes Drive but not including UCT. The Plan was to have regard for the following:

- Rhodes' intentions for the Estates;
- The fusion of townscape and landscape; and,
- The indigenous-exotic vegetation debate.

The document highlights the significance of the Estates, reiterating its importance as a gateway to the city as well as being a visual backdrop to the city, the freeways and the university itself. The site not only has an important visual role but also has amenity value. Problems highlighted in the plan relate to aesthetic, ecological, structural (impact of building works on access) and management issues. Opportunities included the aesthetic value of the landscape, the ecological assets, cultural value of the site and infrastructure.

A landscape management plan was informed by a set of policies and put forward specific proposals related to each, namely:

- Policy 1: Protect and regenerate indigenous forest and fynbos communities;
- Policy 2: Eradicate the invasive alien species;
- Policy 3: Regenerate the historically and environmentally significant species (Stone Pines and Oaks) Here they make a specific proposal to regenerate stone pines along the lower slopes above the University in tandem with the phased removal of the Cluster Pines;
- Policy 4: Maintain the open grassy appearance of the paddocks, meadows and parkland areas using the grazing animals as a means of control (City Gateway Parklands, Welgelegen Dell and the avenue woodlands); and,
- Policy 5: Halt erosion and restore eroded slopes.

The Plan itself (Figure 5) mooted the idea of a planting framework directed at achieving three broad vegetation zones, firstly, a band of restored indigenous forest and fynbos communities in the ravines and along the higher slopes; secondly, a broad band of forest extending continuously from the City gateway Parklands past the back of the University to the deciduous woodlands adjacent to the avenue; and thirdly, a pattern of paddocks between the pine masses of the City Gateway Parklands, and meadows beneath the oak forests, supporting grazing animals.

The Management Plan was undertaken by a large team of professionals including Landscape architects, architects, city planners and forest and soil scientists. Providing a thorough assessment of issues related to the broader landscape context, the plan is helpful in clarifying the role of the site as part of the broader Groote Schuur Estate.

⁶ The team consisted of Barry Gasson, Pierre Combrinck, Bernard Oberholzer, Fabio Todeschini, Dirk Visser and Fred Ellis.

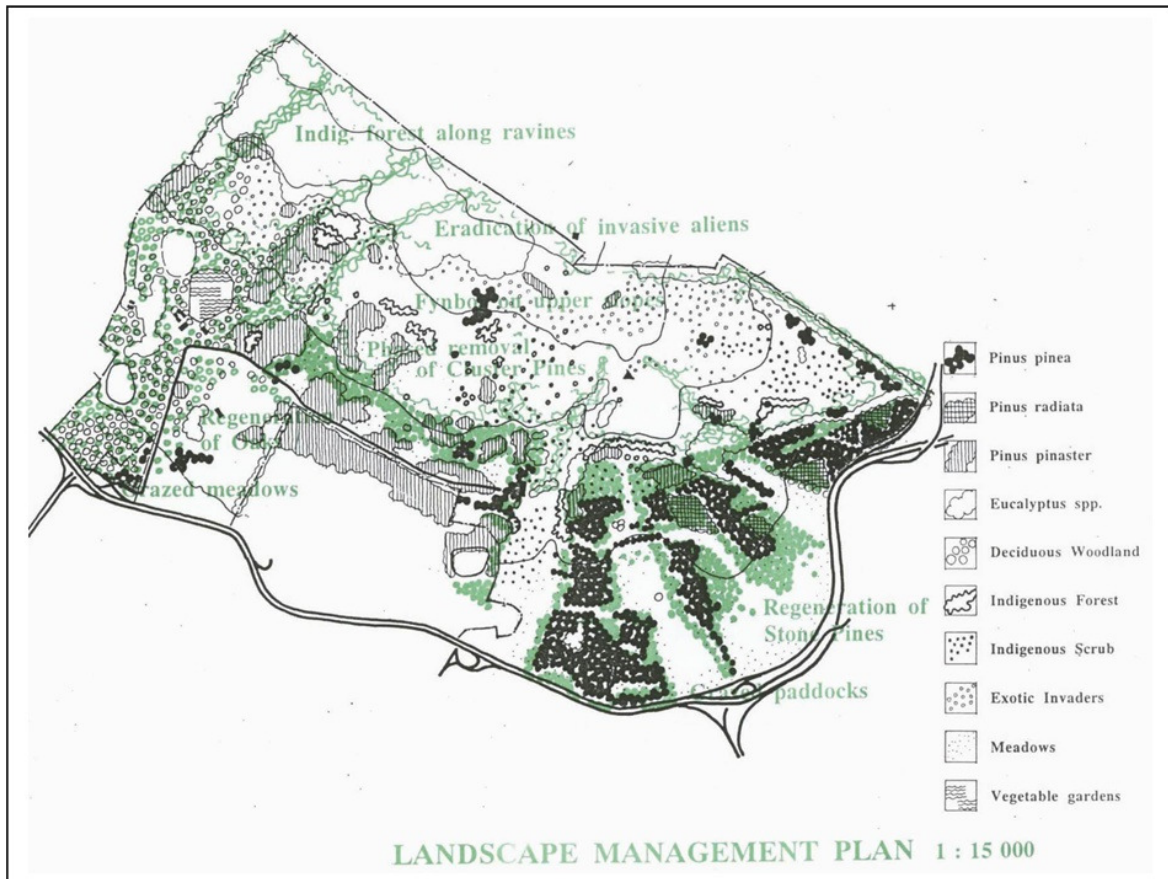


Figure 5: Groote Schuur Estates Landscape Management Plan

While it is important to focus on the recommendations, it is also a good reference work, helping to contextualise the site historically in particular. The following is a chronological list of significant actions undertaken on the Estate:

- Deforestation through intensified farming in the area post 1657 leading to elimination of useful timber by 1707;
- Introduction of Stone Pines under the DEIC;
- Severe erosion of the slopes then prompted a-forestation countermeasures and Devil's Peak forest was planted in 1894 under John X. Merriman (commissioner of Crown Lands and Public Works);
- Rhodes bought land to protect the mountain from suburban encroachment and set about to create Parkland (not a commercial forest). He planted more Stone Pines in the north on the ridges and cleared out the "jungle" to reveal the existing groups of Stone Pines and Oaks which gave shape to parkland for the public. Rhodes died in 1902 but specified in his will that no part of the Estate was to be sold, let, or otherwise alienated;
- No buildings for suburban purposes were to be erected, since Groote Schuur was to be the home of the Prime Minister and the Grave of the late JH Hofmeyer was to be protected. In 1910 the Rhodes Will Act (Act 9 of 1910)⁷ (section 2.1.8) was passed and the land was transferred to the South African Government, subject to provisions specified in the Act. The government was given the discretionary right to develop a site on the Groote Schuur Estates for university buildings;
- Rhodes Memorial and the access road were completed in 1912;

⁷ The Rhodes' Will Act is also known as the "Groote Schuur Devolution".

- UCT was officially established in 1916, while the central backbone to the Upper Campus was built in the 1930's;
- In 1936 the PWD recognised that the woods on the Estate were in need of attention and sought advice from the Department of Forestry. A working plan was prepared, which proposed that, amongst other: woods of exotic trees should be thinned to 123-247 stems/ha to achieve a more Park like landscape; young regenerating Cluster Pines be removed; and inter-planting and other planting of indigenous trees (e.g. Silver Trees (*Leucadendron argenteum*)) should be undertaken. Cluster Pine and Stone Pine seedlings were removed and Silver Trees and *Protea* seeds were sown. Yellowwood under-planting also occurred. It was noted that existing Stone Pines, Cluster Pines and Poplars were about 60-70 years old and therefore predated Rhodes. It was also noted that *Eucalyptus* plantings were undertaken around 1903 for fire protection purposes. The landscape was at that stage dominated by Cluster Pines, which were invading, with the second most dominant tree being Stone Pines.
- A 1955 report focused on the need to create "all age" (diverse ages) stands to promote canopy sustainability and investigated planting a more diverse range of trees including species exotic to the Cape.
- A 1988 decision to chop down some of the Stone Pines, to improve grazing, was stopped after a public outcry.

2.3.9 Conservation Development Framework (CDF): 2006-2011, Volume 1, Prepared by South African National Parks (SANParks): Table Mountain National Park (TMNP)⁸

Objectives of developing the TMNP CDF are firstly that it fulfils the requirements of the National Environmental Management: Protected Areas Act (Act 57 of 2003) (NEMA: PAA) and SANParks' CDF Planning Manual; that it be informed by relevant up to date specialist- or area focused studies; and, that it should align with the TMNP revised Park Management Plan.

The CDF comprises three volumes, the first of which contains a map and accompanying tables and is reviewed here. The CDF as a set of documents should be understood as a 'planning framework' and not an implementation plan. The CDF forms part of the TMNP Park Management Plan as approved by the Minister in terms of NEMA: PAA. Thus any proposed land use changes need to follow due statutory and legislated processes. Changes to the management recreational activities can only occur with stakeholder participation.

The map grades the expected intensity of use and identifies visitor sites, TMNP movement networks and the boundaries. It also indicates visitor numbers to various locations within the TMNP per annum.

The Map indicates that Rhodes Memorial, a *mixed use Leisure site*, is a highly visited site with over 100,000 visitors per annum but its surrounds are zoned '*Quiet*'. *Quiet* zones provide experience of a 'relative sense of solitude and relaxation' through the experience of the natural environment supported by basic facilities. These zones are relatively accessible and therefore attract more users to the area. Users in these zones are also typically exposed to the 'sights and sounds off the City' and it is therefore important to note when considering any change to the landscape interface

⁸ This CDF replaced the 2001 CDF for the (then) Cape Peninsula National Park which was the first spatial Plan prepared for a National Park in South Africa. A CDF is a spatial plan developed to address the requirement of NEMA: Protected areas Act (NEMA:PAA) (Act 57 of 2003), which requires National Parks to prepare "zoning Plans" indicating what type of activities should occur in what sections of the park. They are intended to be reviewed on a 5 yearly basis.

between here and the built edge. Activities permitted in and around Rhodes Memorial are hiking, walking, running and (subject to EMP's) bouldering, dog walking, traditional- and free climbing, sports climbing, hang-gliding and paragliding, horse riding and mountain biking. Film-shoots, races, cultural events and specialised adventure activities are permitted, but are subject to permits with specific conditions.

2.3.10 Groote Schuur Estate: Conservation and Development Framework: Phase 1 Analysis and Preliminary recommendations, June 2002 by CNdV.

The Phase 1 Report consists of a comprehensive site analysis, an historical assessment and statement of significance in conservation terms, leading to preliminary recommendations regarding conservation management as well as possible development or 'concession' opportunities for the Rhodes Estate.

The portion of the Estate considered in this Framework is an area of approximately 300 ha and includes the portion of the Estate located within the Cape Peninsula Protected National Environment (CPPNE) boundary.

The Estate is again considered to have an important Metropolitan role as part of the landscape serving as a visual gateway to the City. The Groote Schuur Estate study area is described as a national asset and is described by Henry Aikman (local heritage practitioner) as "one of the most complex and extensive historically designed landscapes after the Company Gardens". The brief for this framework was therefore to review the condition, role and nature of the Estate with its inclusion into the TMNP (then CPNP).

The document analysed the estate as a number of precincts, the most relevant of which is the precinct referred to as the "university slopes". Significance of this precinct is strongly related to the experience of the approach to Rhodes Memorial by car along the access road. A brief description was followed by a set of landscape restoration recommendations, which reinforced the status quo, i.e. grassed woodland slopes containing clumps of stone pines (some of which were estimated to be 120 to 150 years old) interspersed occasionally with low growing indigenous vegetation. The CNdV report recommended gradual clearing of senescent pines with a replanting and reseeding programme to ensure landscape succession. It was suggested that new stone pines be planted specifically along the ridgelines and not under the existing canopy to ensure maintenance of a consistent height in the Pine canopy and further proposed phased removal of gum trees. Other recommendations included that any new plantings should be restricted to low, ground-hugging indigenous vegetation to facilitate better surveillance and to protect safety of recreational users; that stumps of previously felled trees should be removed; and, that fallow deer should be excluded. Finally, a system of signage to inform the public about the historic landscape and activities on site was proposed.

Recommendations and conclusions revolved around the urgent need for a Landscape Management Plan and further consideration of how to develop the three important nodes within the Estate, namely Rhodes Memorial and Environs, Mount Pleasant and Environs and the Zoo Site and Environs all of which are provided within the Phase 2B document reviewed below.

2.3.11 Groote Schuur Estate: Conservation and Development Framework: Phase 2B: Detailed Planning and Management Proposals, September 2002 by CNdV.

Broad objectives of the Phase 2 framework were to make recommendations for the future role, land use and related management options for the Estate and secondly, to prepare "framework" proposals for the identified nodes and precincts that highlight possible concession opportunities where feasible. The analyses undertaken through both Phase 1 and the 1992 Groote Schuur Estates Landscape Management Plan, prepared for the Department of Public Works, served as key informants.

The Landscape Management Plan was founded on four "convictions" which remain relevant today. These convictions are as follows:

- **That** the Estate was bequeathed by Rhodes in his will as an area for the general public's enjoyment and it is therefore important that the managing entity be respectful of Rhodes primary intentions
- **That** the study area is not a pristine indigenous landscape but a culturally-made one of established beauty and historic significance. It is therefore not practicable to return it to an imagined pre-cultural wilderness condition, although there are parts of it which should have a predominantly indigenous character.
- **That** neighboring institutional growth, particularly of the University, and increasing visitor numbers, will be a continuing reality. Maintenance of the quality of the study area for broad community use will therefore require the regulation and moderation of incompatible demands.
- **That** it is improbable that the future of the study area can be derived from a simple revival of its past condition. It must continue to evolve as a place having current social relevance while retaining the important imprint and meanings of the past. The Plan should therefore have both a retrospective component, focusing on the restoration and conservation of the irreplaceable legacies, and a prospective component directed at settling necessary and compatible new development."

The document suggests ways in which different landscape- types and elements may be used to shape a vision. It is proposed that the Jeep track above the Rhodes Memorial approach road be used to define the boundary of different management zones. Above the Jeep track, for example, the landscape can return to its indigenous form, but below it the managing agent/s must respect cultural layering.

The university slopes are considered part of what they term the "Grand scale Landscape", the grandeur of which must be protected and enhanced. The retention of the Stone pines is seen as a critical strategy in achieving this.

The Landscape Framework Plan makes specific landscape restoration recommendations relating to the UCT forest, proposing gradual removal of *Pinus pinaster* and inter-planting with *Pinus pinea*. This was obviously in response to a finding in later work that the green backdrop to UCT is critical to preserve. It uses all recommendations put forward in the Phase 1 document as the basis for proposals related to the "University Slopes" area with one additional recommendation for replanting the Stone Pine Avenue along the road.

The intention of SANParks was that key findings from this report would be incorporated into an integrated management plan for the Estate and a series of concession contracts and/or proposal

call documents would be advertised to the private sector for further development and operation of the three identified nodes being The Zoo site, Mount Pleasant and Rhodes Memorial.

2.3.12 UCT, Rondebosch/Observatory Campus: Development Framework Plan (DFP), Physical Planning Unit, Revised March 2010

The DFP is intended to guide the nature and form of all proposed physical development once approved by the University Council. It was the culmination of planning processes initiated with the appointment of consultants (Dewar, Louw and Southworth 2005 – refer to section 2.3.14) to prepare “*A long term spatial development framework and Urban Design Concept for the University of Cape Town*”, commonly known as the “Guide Plan.” The Guide Plan together with an Access Management Plan (2005), a number of Heritage Assessments and a Landscape Framework Plan (Oberholzer 2006) and substantial internal discussion informed the DFP.

The DFP was also informed by metro-wide planning and policy, local area planning as well as planning work associated to adjacent land holdings such as the Groote Schuur Estate (GSE). The GSE-Conservation and Development Framework is particularly relevant. The Guide Plan and this Framework are consistent in their approach to the future of the forest and parking. The Forest is seen as an important evergreen backdrop to the classical set piece (Jamieson Hall, stairs and residences). Neither plan sees the Park having a parking role for students.

The DFP responds to a number of institutional informants, the most important being the fact that 25% of students live in university residences and this is expected to increase. The university is planning to be able to accommodate an additional 25% who are presently drawn from outside Cape Town. However it should be noted that UCT does not propose any new development on upper campus. Future development will be on the middle or lower campus where densification is deemed more appropriate and feasible. The implications are however that the campus as a whole will need to perform optimally as a living environment, servicing those who do find themselves living ‘on site’.

The DFP states clearly that there is no intention to expand the current estate beyond its defined boundaries with the exception of two locations - Rustenberg Junior School and a site near the Observatory Campus on Main Rd. There are no intentions of using the Zoo site although the DFP does propose that UCT initiate “collaborative development initiatives” with SANParks related to the Zoo Site. This is not seen as a priority and is only foreseen to be a reality if funding from other parties is forthcoming.

Development opportunities mostly contribute to densification of the middle and lower campus to create a more urban environment, although green aspects are excluded. The green landscape framework is proposed to be reinforced through consolidation of green fingers running vertically down the hill from Rhodes Drive/M3, and the horticultural consolidation of specific heritage precincts where appropriate.

A set of performance criteria were defined, to guide and form the basis of evaluation of all future spatial proposals, these are as follows:

- **Equity:** relates largely to the issue of access, particularly for those on foot and those with disabilities;

- **Integration:** with the surrounding community, local urban systems especially transport systems, between various parts of the campus and departments and between people historically separated by social and cultural barriers. The last aspect is proposed to be addressed through the creation of a system of informal, public gathering spaces;
- **Dignity:** infers that by the making of an environmentally and socially supportive environment, there is support for the campus as a key social and educational institution of excellence;
- **Heritage conservation:** refers to the need to respect architecturally-, horticulturally- and culturally significant buildings, landscapes and use patterns, etc. It was for this reason that the Plan responds in detail to heritage assets confirmed through the heritage studies undertaken between 2000 and 2006. The assets of most relevance to the site in question are the group of buildings associated with Jamieson Steps referred to as the “Classical set piece”; and,
- **Landscape, Placemaking and Legibility:** refers to the need to focus on the nature and quality of open space linking the built precincts, buildings and surrounding landscapes, the object being to make the public realm more humanely scaled, safer, more comfortable and coherent. Hence the structuring of the Plan according to key spatial principles contained in the Landscape Framework and Urban Design Concept put forward by Dewar, Louw and Southworth (2005).

While the DFP focused on the form of new development it also focused extensively on the location of new development in relation to vacant and underutilised land in a way that facilitates improved integration between the campuses. Transportation and pedestrian access networks are thus an important informant of the Plan. Safety through improved lighting, CCTV, emergency bollards, trimming of vegetation and more responsive building interfaces are suggested. The DFP states categorically that pedestrians are to be accommodated in all situations before vehicles.

Parking is not seen to be a priority for investment and it is proposed that no new bays are provided, since the University’s preference is rather to focus on managing access to campus.

2.3.13 Landscape Framework Plan (LFP) for UCT (2006) (Prepared by Bernard Oberholzer Landscape Architect)

The LFP intended to inform the Long term Spatial Framework developed for the UCT Campus in 2005. Covering the Lower-, Middle- and Upper Campuses, it was based largely on interviews, review of previous reports and investigations on foot. The LFP set out to formulate policy resulting in principles, policies and guidelines to achieve consensus and a basis for decision-making. The Landscape Plan included planting themes and a management strategy to guide further implementation. The spatial aspects of the plan were informed mostly by the Long Term Spatial Development Framework and Urban Design Concept for the University of Cape Town (Dewar, Southworth and Louw 2005). Despite the fact that it appears that this document was not well received by the Physical Planning and Landscape Sub-Committee (PPLSC) it provided a good basis for future spatial planning in the form of structuring principles.

The LFP undertook a survey of all relevant planning documents and compiled a list of issues. Issues pertinent to the site included:

- Lack of progress in implementation of an invasive species clearing programme as well as a replanting strategy; and,

- Lack of progress associated with the proposal to plant the terraced parking areas above the Sports Centre.

General issues related to the UCT Heritage Park and its management included:

- A need for more co-ordination with respect to design and management of landscaping across the campuses;
- A need for more sensitive lighting along pedestrian routes and a language of street furniture;
- A need for open spaces and landscaping to play a stronger educational role – this has particular relevance to the site which, due to its location away from the high activity zones, provides excellent opportunities to accommodate outdoor teaching spaces, etc.; and,
- There is an ongoing challenge to seek funding to invest in planting, restoration and related landscape strategies.

The LFP principles are informed by an approach founded on a belief in acknowledging the evolving nature of the cultural landscape and in the importance of understanding the continuum between the urban and natural contexts. The latter habitat approach ensures that landscaping, which has historically sought to complement the architectural pieces, now also ensures that ecosystems are given consideration; thus micro-climates and amenity value are important informants of design.

The principles are then based on an understanding of the role of open space system as ecological, recreational (passive and active) and educational and include:

- Ecological Sustainability
- Legibility
- Accessibility
- Safety and Security
- Comfort

The following is a list of selected pertinent policies that were informed by the philosophy and principles:

- **Policy 1:** Reinforce open space corridors (and their ecological, heritage, recreational and educational roles);
- **Policy 3:** improve the Campus habitat by investing in planting precincts that have a greater diversity of species in particular endemic species. This planting must also be considered in relation to visibility and safety issues;
- **Policy 4:** Landscape Parking, which requires that parking areas are ameliorated and designed in a more environmentally responsible way;
- **Policy 6:** Use a consistent language of detailing and specification in relation to bins, seating lighting, signage etc. to achieve co-ordinated street furniture.

The Framework itself comprises a plan and a number of specific projects, some of which relate to the site. PR1 and PR2 apply specifically to the site. However these projects require:

- clarity on a way forward with respect to the future of the stone pines;
- liaison with SANParks re the future of Rhodes Estate; and,
- decisions on a planting programme and arboretum concept for the forested section of upper campus.

Close inspection of the Plan (Figure 6) illustrates the landscaping interpretation of the Forest Site as a solid canopy with clearings, but a forest of two distinct types: one, which belongs to the broader landscape and another, which serves a screening function from within Campus. This idea is not expanded on and the implications are not clear.

Finally, it was suggested that a detailed landscape precinct plan for the “parkland” above Ring Road on Upper Campus be prepared, the aim of which would be to address, amongst other, problems of senescent trees and stone pine regeneration in consultation with SANParks.



Figure 6: Landscape Framework Plan, B Oberholzer Dec 2006

2.3.14 A Long Term Spatial Development Framework and Urban Design Concept for the University of Cape Town (Dewar, Southworth and Louw, 2005)

This document gave guidance at the level of the whole campus – the upper, middle and lower campus; focused on means of giving spatial clarity / legibility between the various precincts and campuses; and, considered how growth can be managed. It was informed by heritage studies done by Therold and Bauman who identified the site as part of a Grade 3A precinct. The land outside of UCT is co-incidentally graded Grade 1.

The document cites sprawling edges, the threat of fire and a lack of surveillance - leading to crime - as some of the dominant spatial problems associated to the site in question.

It suggests that the edges between the University - as a constructed landscape heritage precinct - and the TMNP (of which the site is regarded as part) as a precinct with significant natural heritage

values should be clearly and sharply defined and should be the subject of a landscape action project (refer to Figure 7).

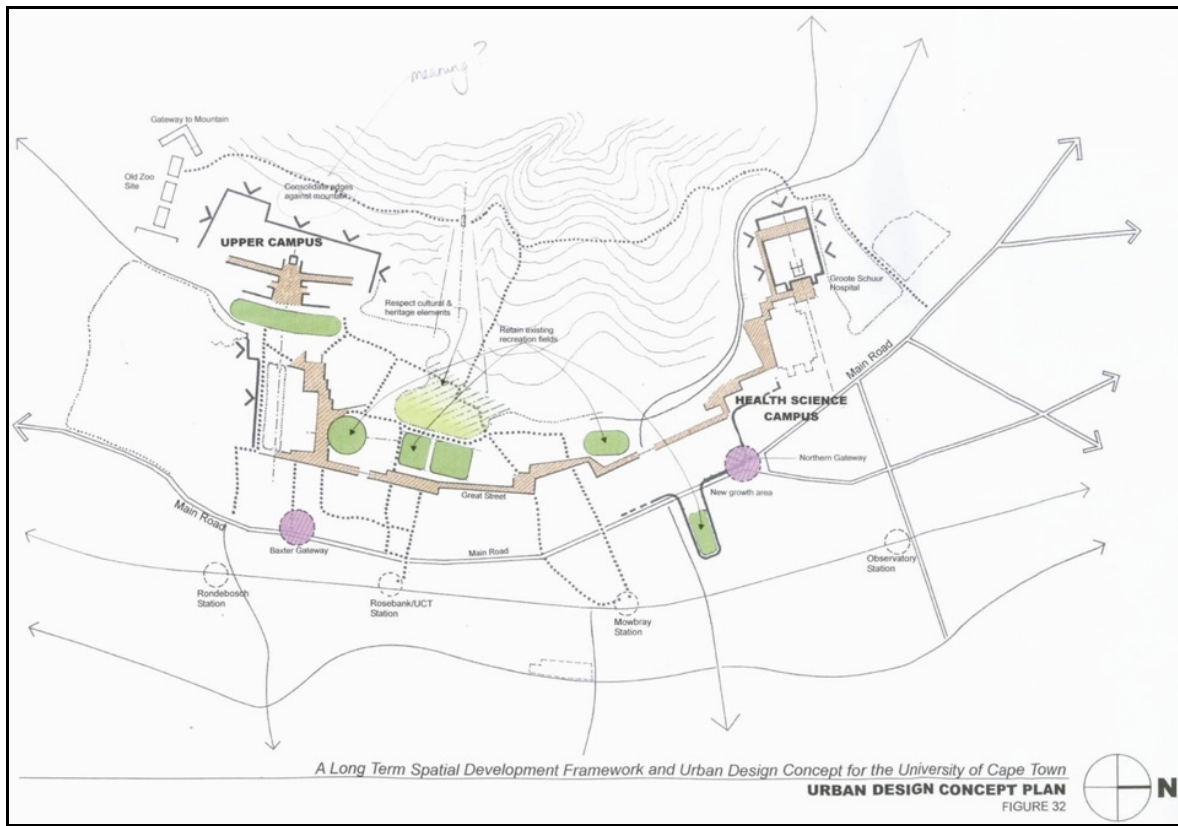


Figure 7: Urban Design Concept Plan, Dewar, Southworth and Louw, 2005

2.3.15 UCT Green Campus Action Plan, Dec 2008

The University of Cape Town started its commitment to sustainable development in 1990, by signing the Talloires declaration, pledging to make the campus more sustainable through the implementation of a ten-point action plan (Hall & Murray 2008). UCT has continued to pursue its sustainability goals, with the formation of the student-run Green Campus Initiative and the commissioning of a Green Campus Action Plan (GCAP) by the Department of Properties and Services to guide implementation. The GCAP provides guidance with regard to ecological sustainability and, according to Gallagher (2009), was intended to be complemented by a Campus Biodiversity Project.⁹

The Green Campus Action Plan¹⁰ followed on from the Green Campus Policy Framework, May 2008. It focused on the work undertaken principally by the UCT Department of Properties and Services which is associated with facilities development, management and operation. The following brief recommendations are relevant to future management of the UCT Heritage Park and are derived from strategies that were prioritised through a consultation process. They have been grouped under themes appropriate to the management of the UCT Heritage Park.

⁹ The Campus Biodiversity Project aimed to increase the representation of Cape flora in the Gardens; showcasing locally indigenous and endemic flora, increasing water-use efficiency, providing habitats for rare species, as well as “boosting UCT’s eco-friendly image” (Green Campus Initiative 2009).

¹⁰ The Green Campus Action Plan may be viewed at www.greening.uct.ac.za/action/gcap/.

Planting

- Reduce use of pesticides and adopt Integrated Pest Management principles and strategies
- Reduce the use of chemical fertiliser and use organic fertiliser as a preferred option
- Conserve topsoil
- Plant waterwise lawns
- Develop and adopt a Forest Management Plan
- Propagate indigenous and endemic plants

Landscaping

- Adopt sustainable urban drainage practises by installing permeable surfaces where appropriate and replacing impermeable- with permeable surfaces where practical
- Upgrade irrigation to surface drip technology (for planting beds only) and ensure these are only operated during low evaporation times, and only when soil moisture is low

Infrastructure

- Install lighting controls at selected locations to activate lighting
- Reduce light pollution through lighting design and best available/affordable technology
- Investigate establishment of second storage dam on Table Mountain property in adjacent tributary

Natural systems

- Enhance biodiversity and ecological value
- Ensure appropriate dry-season water flows to maintain natural streams on Upper campus

Management

- Implement and monitor Environmental Management Plan's
- Continue with clearing of invasive aliens
- Continue with composting of horticultural/landscaping waste

Land Use activities

- Minimise parking footprint to conserve landscape

Proposals for the future development and maintenance and management of the site need to keep these broader strategies in mind if UCT are to keep to their commitment to fulfil the ideals of the Talloires Declaration, signed in 1990. The 2008 revision of the UCT Green Campus Policy Framework (Hall & Murray 2008) states:

“With regards to achieving improvements in environmental performance related to institutional practice, the University of Cape Town will: ...

- *“Manage and protect the university’s natural environment in a sustainable manner and enhancing the environmental quality of the estate to reflect the unique character of the indigenous flora and fauna”; and,*
- *“Establish an integrated transport policy, which will provide improved facilities for disabled people and reduce the environmental impact associated with transport to and from UCT by encouraging the use of public transport, cycling, and walking”.*

2.3.16 Stormwater Management on Slopes Adjacent to Natural Areas, 2003

This set of guidelines, prepared by the City’s Catchment, Stormwater and River Management Branch, was compiled to address gaps in the City’s 2002 publication *“Stormwater Management and Planning Design Guidelines for New Developments”*. The 2003 guidelines sought to address specific stormwater management issues at the natural / urban interface on the slopes of the Cape

Peninsula mountain chain for both new and existing developments. To achieve this, three specific management objectives, with proposed actions to achieve the objectives were set as follows:

- **Minimise threat of flooding:** Take cognisance of higher runoff due to steep slopes and risk of fires; high velocities; risk of blockage of underground stormwater pipes;
- **Minimise potential result of erosion:** Utilise available data to assess slope stability risks and apply countermeasures; and,
- **Strategically remove/manage alien vegetation:** Clear alien vegetation from areas where they pose the greatest threat and continue to manage any re-growth. Use appropriate clearing methods and consider consequences on stormwater.

2.4. Implications of relevant planning and policy

The site is located in a strategic position on the interface between one of the oldest suburbs in the Metro area and the TMNP. In terms of the Guide Plan it is set aside for “Government Use” but it also has a role in its natural or undeveloped state. It plays an important role as a transition space between a densely built up Campus and the mountain, but in addition is an important component of a larger open space system that links the mountain domain with the river systems below.

More recently compiled documents (including the CTSDP and the District Plan) view the TMNP as the “single biggest tourism asset in the region.” The implications of this are that the privately owned areas adjacent to the park must be managed carefully to allow the mountain to maintain its role as a key tourism destination/feature. The site’s role as a component of the broader historic and culturally significant Groote Schuur Estate, one of the key visitor destinations within the TMNP, should therefore be reinforced. The 2008 revision of the TMNP Park Management Plan notes the following regarding the proposed upgrade of the Groote Schuur Estate:

“The Groote Schuur Estate project involves expanding the game camp for indigenous fauna, upgrading the Zoo Site into a multi-use visitor facility and the Rhodes Memorial site. To undertake this project, capital investment of approximately R8 million is needed for an expected annual return of R2 million.”

Coordination with SANParks, who manage the Groote Schuur Estate on behalf of the Department of Public Works, will be critical and may require the formation of potential cooperative management agreements. Access and management are key issues which specifically require coordinated implementation approaches. Efforts to encourage the recovery of indigenous vegetation types as well as the forest canopy, and its role as a visual backdrop to the “classic set piece”, need to be critically debated when the future of the Pine trees is discussed.

The role of the broader landscape is multiple and requires complex management to ensure that the cultural/historical aspects and biodiversity requirements are given their due consideration in relation to requirements set by the broader legislative framework. To this end it is important to ensure that there is synergy between SANParks and UCT’s visions for the area. Landscape restoration recommendations proposed in the Groote Schuur Estate: Conservation and Development Framework: Phase 1 document (section 2.3.10), provides a starting point for discussion. Given the location of the site, between the densely built up Campus and the TMNP, it is important that fire risk be assessed and managed according to, amongst other, the Veldfire Related Planning Guidelines (as well as relevant National Veldfire legislation and local veldfire regulations and/or bylaws, for example).

With regards to specific proposals of a spatial nature, few of the reports reviewed offered clear guidance. The Urban Design Concept for UCT suggests that there be a defined line between the built and the natural landscape to prevent sprawl. The Landscape Plan for UCT suggests some new green and movement continuities in the future but, most importantly, there is continual reference to the need for a more detailed landscape management plan considering the future maintenance of the forest.

UCT does not support any further parking on site nor foresee any development pressure on upper Campus. The Green Campus Action Plan recommends the use of permeable surfacing; minimisation of parking; and, planting water-wise indigenous and endemic species. These recommendations should inform more detailed proposals.

3. THE SITE

The UCT Tennis Club, comprising eight courts, two netball courts and a clubhouse, is sited centrally in the Forest Precinct. It is serviced by its own parking area above P15, which is accessed from the service road (Figure 8). The Tennis courts have built-in seating and flood lighting.

An organic waste dumpsite is located on the extreme southern boundary. A number of trees have been cleared to facilitate dumping and recycling of organic waste in this zone. The clearing contains a fire hydrant fed by two reservoirs in the corner of the site. The area is fenced along the road edge only, with a permanently open gate. This area requires directed management

The forest is home to the Beattie and Kaplan memorial¹¹, located behind the tennis club courts.

Various other buildings occupy the site's southern portions. These include the Educare Centre and the nursery/maintenance depot. Further down the southern slope is Maintenance Place with the BISRU and the Sasol Advanced Fuel Laboratory. An additional parking area and vacant site used temporarily by contractors for the Chemical engineering facility is also present in this location.

The UCT dam, in the Dam Precinct to the west, is an important but neglected and underused infrastructural component of the landscape. The dam is mainly used to irrigate upper campus but it is used for a variety of purposes including fishing¹²; water for fire-fighting¹³; and, as a source of water for freshwater ecology studies.

Other service-related infrastructure includes roads, parking, storm-water control structures (cut-off drains and culverts) and the necessary sewer, water and power connections to the buildings.

A water main that pumps water to a reservoir on the higher slopes, from which Rhodes Memorial and Mount Pleasant are supplied, crosses the site diagonally.

3.1 Natural and cultural heritage value

This section summarises the biophysical and cultural heritage value of the site, and includes a synthesis of comprehensive reporting by Gallaher (2009) for a UCT Forest Management Plan.

¹¹ The memorial recognises contributions to UCT by Sir John Carruthers Beattie, the first principal and Vice Chancellor of UCT (1918 to 1937), and the Kaplan family who were central to the establishment of the Centre for Jewish Studies and Research.

¹² Anglers require a (single day or annual pass) license, which may be purchased from the Sports Center.

¹³ Fire-fighting helicopters use the dam water for fighting fires in this locality.

3.1.1 Biodiversity

Vegetation

Because of the long history of human-induced vegetation changes in this region, it is difficult to determine the original vegetation with a strong degree of certainty. Using historical excerpts, it is likely that well-developed Southern Afrotropical Forests would not have been present at these lower altitudes although some fynbos thicket elements are probable.

The vegetation type present at the site is Peninsula Shale Fynbos, a sub-type of Cape Winelands Shale Fynbos (Laros & Benn 2007; Rebelo *et al* 2006). It can be further subdivided into those areas on Shale and those on recent non-aeolian colluvium, and is found in areas where the high rainfall has leached many nutrients out of the rich shale substrate, making soils suitable for fynbos elements (Rebelo *et al* 2006). Derived from Malmesbury shales, the soils form moist, acidic clay-loam soils, and occur from undulating plains to steep mountain slopes (CCT Biodiversity Management 2009). The vegetation type is dominated by tall and short shrub species, as well as graminoids (grass species).

Vegetation mapping shows that the area should support fynbos, however, the climate and soils of most of the fynbos biome can support Afrotropical forests, but these are excluded in many places due to regular fires. Trees grow relatively slowly in lower nutrient soils, so they seldom reach reproductive maturity before the next fire (Rebelo *et al* 2006). In areas with richer shale soils, however, forests are able to establish due to faster growth to a fire-resistant adult state. Species present in Southern Afrotropical forests include *Podocarpus latifolius*, *Rapanea melanophloeos*, *Cunonia capensis*, *Curtisia dentata* and *Kiggelaria africana* (CCT Biodiversity Management 2009). This vegetation type is dominated by tall trees, as well as shrubs and geophytic herbs in the understory layer (Rebelo *et al* 2006), and the relatively fire-resistant nature of these species means that they have the potential to be useful along the urban edge of UCT.

Presently, the eastern component of the UCT Forest Precinct consists of a stand of mature *Pinus pinea* (Stone Pine) and *Pinus pinaster* (Cluster Pine) with a few *Acacia melanoxylon* (Blackwood), and an avenue of *Eucalyptus diversicolor* (Karri) and *Eucalyptus ficifolia* (Flowering Gum). These trees form a dense canopy through much of the site but many are senescent, starting to die from old age and need to be removed (refer to Appendix 1). Seedlings and saplings of the invaders *Pinus pinaster*, *Acacia melanoxylon* and one or both of the *Eucalyptus* spp. are present. Indigenous forest and fynbos elements include scattered Wild Peach (*Kiggelaria africana*), *Rhus*, Yellowwood (*Podocarpus latifolius* and the non-local *Podocarpus falcatus*¹⁴) and other bird distributed species.

The under-storey consists predominantly of invasive alien plant species with only remnants of indigenous flora, primarily fynbos thicket species which can tolerate lower light conditions. It appears that the under-storey has been managed to reduce fire risk by simply cutting everything down and allowing it to resprout. The ground is fairly extensively covered with *Pennisetum clandestinum* (kikuyu), *Stenotaphrum secundatum* (buffalo grass) and a mix of herbaceous species, mainly cosmopolitan weeds such as *Taraxacum officinale* (dandelion).

¹⁴ This species is not locally indigenous, but has begun to spread on the slopes of Table Mountain.

Fauna

Gallaher (2009) continues: that the forest fauna must be taken into account for any management plan. Bird inhabitants of Afromontane forests, such as Black and Rufous-chested Sparrowhawks and Forest Buzzards, find alien forests to be suitable habitat and are present at UCT, feeding on pests such as pigeons and rats (le Cordier 2008). In order to allow them time to adjust, any management plan should be implemented gradually. However, since none of these species are threatened, are not numerous in the forest and are territorial (Hockey et al 2005) they may be a less significant consideration, although breeding times should be respected.

UCT campus supports an IUCN Red Data List species, the “vulnerable” Cape Rain Frog (*Breviceps gibbosa*). Endemic to the Western Cape, it was the first Southern African frog to be scientifically classified (du Preez & Carruthers 2009) and is protected by the Nature Conservation Ordinance 19 of 1974. All management plans should endeavour to protect this species (e.g. through relocation of individuals) since the species finds disturbed habitats like pine plantations favourable (Harrison & Minter 2004). The species begins calling with the first winter rains until about November, calling day and night in wet weather (Harrison & Minter 2004). Individuals should be caught and relocated before or during restoration activity, but this should ideally be done before they breed at the beginning of winter, to prevent offspring mortality.

Also present is one of the planet’s top 100 invasive faunal species, the Grey Squirrel (*Sciurus carolinensis*), also known as the American Grey Squirrel or Northeastern Grey Squirrel, which was introduced to Groote Schuur Estate by Cecil John Rhodes around the turn of the 19th century. Within southern Africa, their habitat requirements include the presence in sufficient numbers of one or more of their staple food-trees, which include the oak (*Quercus robur*) and three species of pine (*Pinus pinea*, *P. pinaster* and *P. canariensis*).

3.1.2 Surface water

It is probable that the natural state of the site would have included seasonal watercourses, and possibly wetlands (mountain seeps) prior to the planting of large trees and before construction of stormwater drainage systems. Presently there are no natural streams or watercourses on the site, although seasonal streams lie to the north and south of the UCT Heritage Park and a large stormwater cut-off drain on site may potentially indicate the presence of an historical watercourse.

A network of minor stormwater culverts traverses the site, managing water from the Rhodes Memorial access road, from the mountain and the site. The culverts drain towards a gully down to the corner of the Ring Road where they are directed underground to eventually flow into the dam. Surface water runoff, from those areas which are not drained to the north, is channelled underground into the UCT piped stormwater network.

The dam receives flows from the mountain gulleys and the Forest Precinct, as well as being ground-water fed. Interestingly, Brown and Magoba (2005) note that the UCT dam, one of many reservoirs in the Liesbeek River catchment, is groundwater fed, but make no mention of surface water inflow.

Two reservoirs in the extreme south of the precinct are the source of water for a fire hydrant. A water main that pumps water to a reservoir on the higher slopes, from which Rhodes Memorial and Mount Pleasant are supplied, crosses the site diagonally.

3.1.3 Heritage landscape

The history and heritage of the landscape has been thoroughly described by a number of authors (e.g. Burman 1991) and in a number of documents (e.g. Groote Schuur Estate Landscape LMP - section 2.3.8; and CDF - section 2.3.10). Much of the detail is included in the sections on local policy and planning, particularly those pertaining to the Groote Schuur Estate and to UCT.

To summarise briefly, the UCT Forest site is part of the Groote Schuur historical precinct. Landscape interventions documented by Burman (1991) have included:

- Extensive forest clearing after 1652;
- By 1774 Thunberg noted: “There are no forests in the vicinity of the town except a few small ones that stand high up in the clefts of the mountain...” (Burman 1991).
- By 1884, there had been large scale erosion and response plantings, which Rhodes continued to do between 1891 and 1899;
- General Jan Smuts initiated large-scale clearing of the planted forests after 1939.

There appears to be overwhelming consensus from all stakeholders that the desired heritage landscape should remain a post-colonial sylvan one, with large trees forming a high tree canopy – possibly dominated by Stone Pines. This is supported by the larger body of documentation. Thus a visually oriented, cultural heritage landscape, rather than the indigenous, or natural heritage landscape, is the preferred future for the UCT Heritage Park.

3.2 Social and economic value

3.2.1 Access and Parking

Formal points of pedestrian entry to the Forest Precinct are via stairs from points where the North and South Lanes intersect with the Ring Road. These access points provide access through Parking Area 15 to the Tennis courts and clubhouse with the link from the North Lane being the more direct access to the clubhouse. The stairs have some lighting but are not legible as they are overgrown.

An informal path, from the northern end of P15, meanders through the forest offering an indistinct route to the top north-western corner of the site towards the Rhodes Memorial. A clear mountain path over SANParks land (off the corner of Ring Road) follows the desire line of pedestrians moving on a daily basis between the parking at Rhodes Memorial and Campus. This path is difficult to access unless one is moving up Ring Road on the northern side of Campus. Access to this path from the top portion of Ring Road is difficult as parking along the road edge forces pedestrians into the traffic.

The access track through the Forest does not formally facilitate pedestrian movement between Rhodes Memorial and Campus as there is no gate or opening in the fence on its alignment. An illegally-made hole in the fence presently allows the link to operate. It is our understanding that the track allows maintenance and fire vehicles to access the forest and service vehicles to access the tennis club. It also offers access to the Parking areas on the site which are under increasing pressure to expand given the growing numbers of students with cars.

The slopes above the dam are steep, forested and not easily traversable. Steep banks along the Ring Road overlooking the dam precinct prevent, or at least impede, pedestrian movement towards the dam for the majority of Upper Campus users.

In conclusion, the site is poorly integrated with the broader pedestrian /open space network of Upper Campus as well as the broader Groote Schuur Estate and is under threat of being used to accommodate over-flow parking.

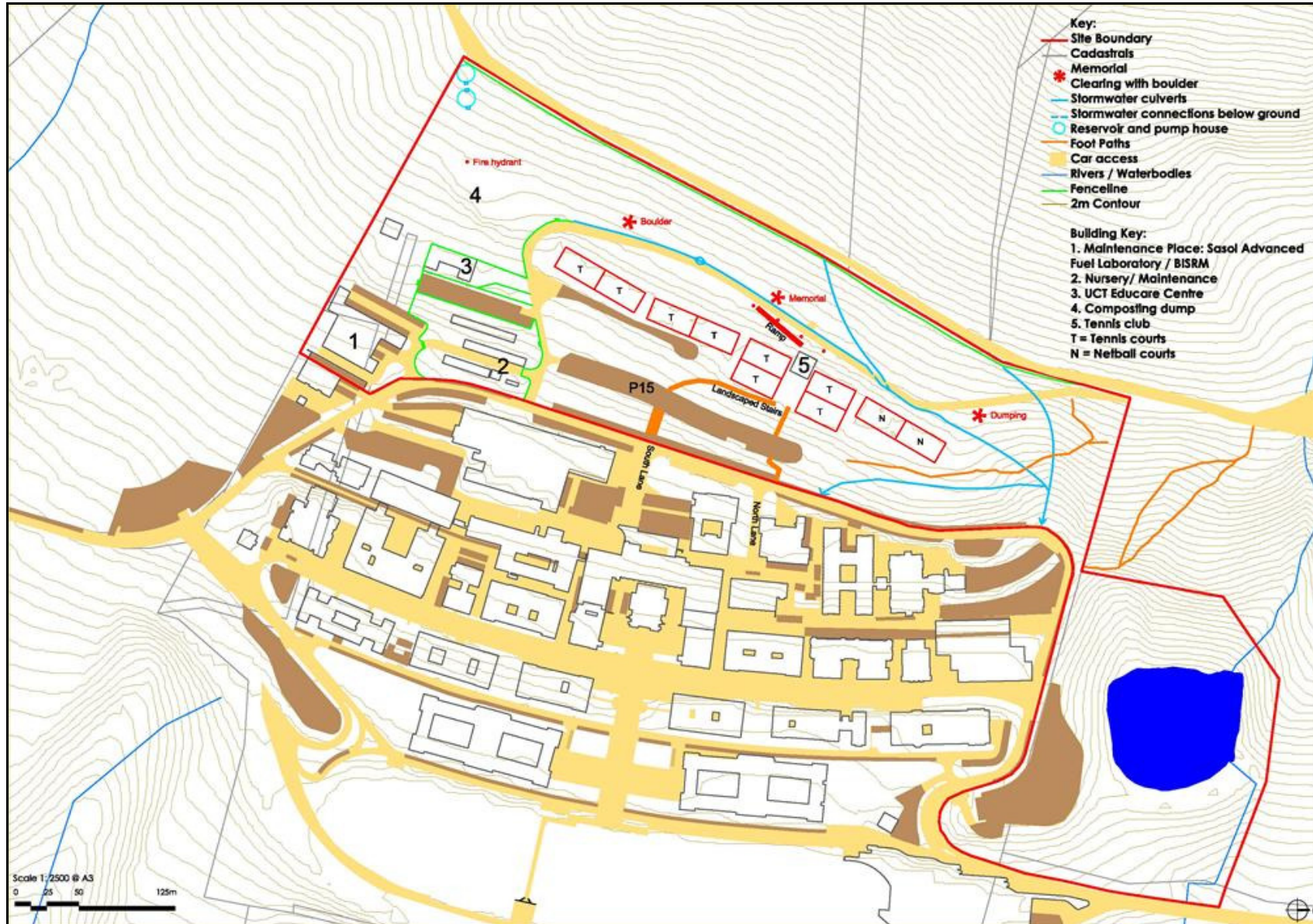


Figure 8: Land uses on the University of Cape Town campus and UCT Heritage Park site

3.2.2 Passive recreational use patterns

The forest generally offers relief from the business of the campus below. It is quiet, affording opportunities to retreat, walk and enjoy a natural forest setting. One can, however, feel very isolated as there is little passing traffic. The tennis club is also generally unused during the week and illegal dumping is an indicator of the isolated nature of the precinct.

The dam, and the open grassed area below it, are used for passive recreation purposes and are easily accessed off the Ring Road approach.

3.2.3 Potential economic value of the trees

The trees on site have a number of potential economic values, both as commercially useable timber and also as on-site timber, woodchips, mulch and compost for upgrading of the composting facility to the south. The un-saleable timber and woodchips may also be used for landscaping, for example, rehabilitation and restoration of degraded areas; creating bridges for the stormwater culvert, benches, stairs and formalising pathways. A further commercial value is as firewood, particularly the *Eucalyptus* species, but pines also make reasonable firewood. Pine bark has a horticultural value since it is used as mulch and compost.

The most valuable trees, from a commercial timber perspective, are the Blackwood (*Acacia melanoxylon*) specimens. Current prices for this hardwood timber are in the vicinity of R2,500/m³, depending on the quality of the timber. Commercial value for timber of both *Pinus pinaster* and *P. radiata* varies considerably but is generally low, and is also highly dependent upon the timber quality of these softwood species. It is important to remember that the UCT Forest Precinct has not been managed as a forestry area, thus all, or some, of the timber is likely to be of low quality.

It is not clear whether the actual value of the timber and other products will realise a profit for the University, but it may at least offset a portion of the tree removal and rehabilitation costs of the UCT Forest. Refer to Appendix 1 for a report on the present day value of the timber on site.

4. SPATIAL ANALYSIS

This section describes the dominant spatial elements in the context of the landscape aesthetic and the “sense of place”. It also highlights key issues and/ or concerns from a spatial perspective.

4.1 Movement routes and destinations

The vehicular access network uses the platforms and contours to inhabit the site, while pedestrians move mostly perpendicular to the slope using a sequence of stairs up the banks between the platforms.

An assumption at this stage is that people based on the southern portions of upper Campus use the access track along the contour to move between Rhodes Memorial and campus, since the north western corner of Ring Road is not a safe or comfortable environment for pedestrians. Those based within the northern portions of upper campus use the existing diagonal path via the stile as it offers more direct access. In conclusion, the pedestrian access pattern has not been conceptualised as part of a broader system associated to the built campus or the TMNP.

4.2 The Forest

The UCT Heritage Park is situated on the slopes of Devil’s Peak in an area which would originally have been Peninsula Shale Fynbos, a vulnerable vegetation type, remnant elements of which are still present in the broader area. The forest itself is dominated by alien trees including invasive Cluster Pines and non-invasive alien Stone Pines. The latter species has historic value within this landscape, since they are part of the culturally and historically significant set of precincts associated with UCT and the Groote Schuur Estate.

The majority of the Forest Precinct is under shade of a well established tree canopy and at ground-level there is some vegetation restricting pedestrian cross movement. This undergrowth, a significant amount of which is alien, also restricts visibility. Where tree planting has been supplemented with planting of large shrubs, then the spatial experience can be very different as lower level planting prevents views through and creates a sense of enclosure or disorientation. For example there are no real visual connections back to campus from P15 due to the presence of a thick *Cotoneaster* hedge beneath the Pines.

There are a limited number of points where the canopy opens up naturally to allow sun through to ground level. The most dominant natural clearing is that associated with an area where large sandstone boulders protrude above the surface of the ground. The other clearings are human-made and accommodate activities that need space and light, such as the tennis courts.

The forest is typically comprised of Pines, although along the western fence edge of the Forest Precinct the Pines are mixed with other well-established alien trees such as Blackwood (*Acacia melanoxylon*) and *Eucalyptus spp.*, while other areas comprise a mix of indigenous fynbos thicket and other fynbos species. Various parts of the site offer different experiences depending on the type, density, height and nature of the canopy and depth of forest area.

The Forest can be understood as a series of “eyebrows” which help to strategically screen various activities in the vicinity. Figure 9 demonstrates the role of these “eyebrows” as screening elements but also as the element which serves as the vegetated backdrop to Upper Campus.

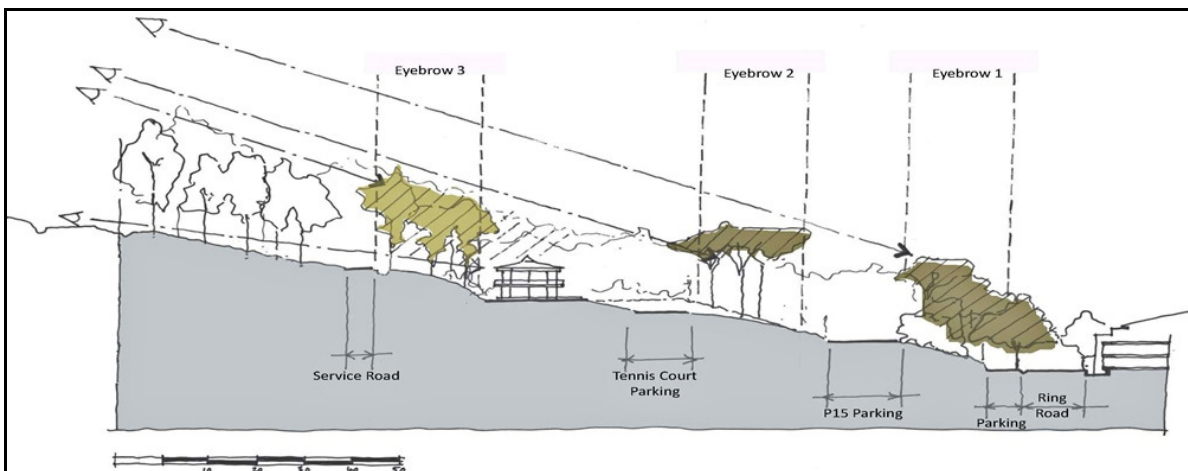


Figure 9: Section through the UCT Heritage Park illustrating the screening effect of vegetation on site

4.3 The canopy and views in / towards the site

Holes in the forest canopy respond to the system of platforms. These holes are obviously increasing in extent and number and becoming more visible from outside the site over time. Small natural openings in the canopy are not visible from the outside and provide relief to the dark interior of the mostly forested site (Figure 10) while the larger clearings are becoming increasingly bigger, making the activities within them more noticeable from outside of the site.

The forest occupying the Forest Precinct generally screens the main building mass of Campus and car parking but does not screen the dumpsite and tennis courts, which are increasingly visible from the Rhodes Memorial approach road.

Views from the Ring Road approach over the Dam Precinct up the slope are undisturbed and provide a view of terraced forest with a foreground of green.

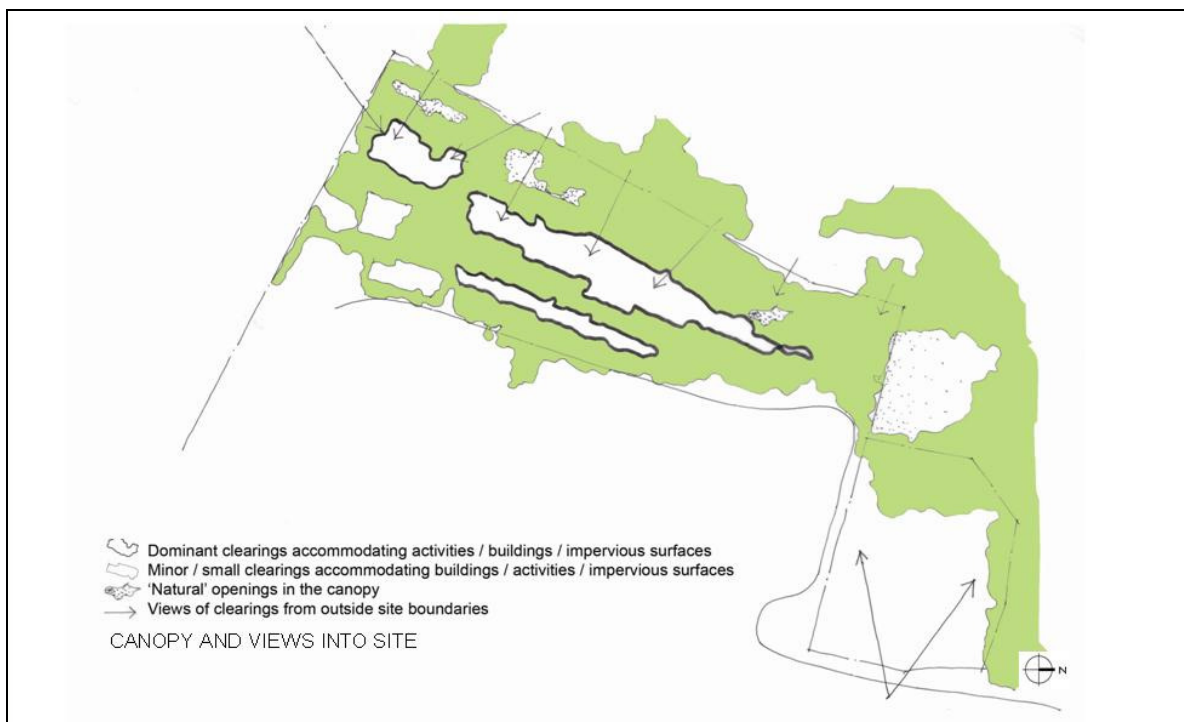


Figure 10: Forest canopy, and views into the UCT Heritage Park (not to scale)

4.4 Platforms and views out of the site

The site has been platformed to facilitate easy access and use. The canopy openings generally respond to the platforms (Figure 11).

Views out of the Forest Precinct are limited except from points on the periphery. Views out of the site are mainly from the dumpsite (dramatic views of Constantiaberg, Steenbeg and Muizenberg Peaks) and from the platform in the bottom northeast corner of the Forest Precinct (from where there are spectacular views of distant mountain ranges). Views up the slope of Devil's Peak are limited to the northern parts of the access track, which reveal glimpses of the slopes above. The immediate slopes above the site are generally only partially visible through the trees trunks from the access track.

The elevated edges along the Ring Road edge overlooking the dam offer spectacular views towards the Tygerberg Hills. The lower portions of this site comprise grassy slopes, offering views towards the distant mountains from what can be perceived to be an amphitheatre type setting.

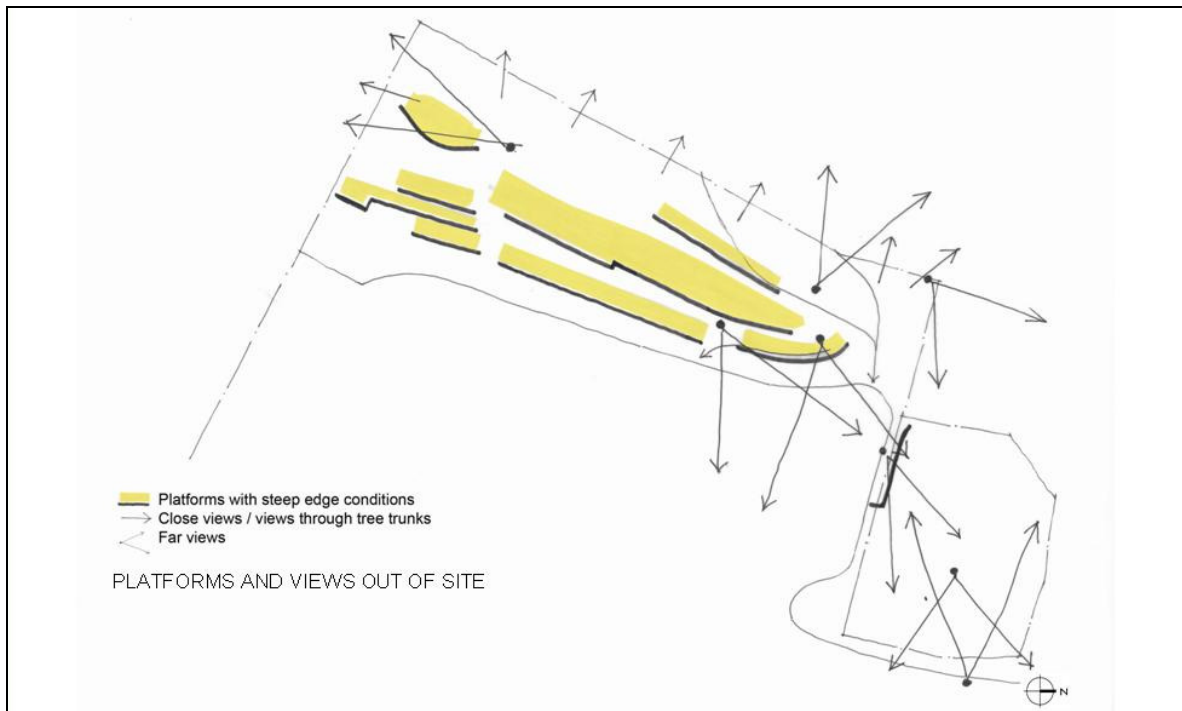


Figure 11: Platforms, and views out of the UCT Heritage Park (not to scale)

4.5 The Forest within the broader landscape

The landscape in which the site is located, perceived from afar, is still dominated by a dense coniferous forest although the “up close” experience of the landscape is somewhat different as it is typically comprised of “meadowlands” – open grassed slopes with scattered clumps of trees.

The site, having a far denser canopy than the immediate surrounds, is presently perceived as the densest part of the ‘forested’ slope and forms a very solid backdrop to Upper Campus. The perceived density of the backdrop increases with distance resulting in the iconic image of UCT against the forested slopes of Devils Peak from Rondebosch Common.

One’s experience of the Groote Schuur Estate landscape, driving along the Rhodes Memorial access road, is that it is increasingly defined by ownership patterns, i.e. the landscape is managed not as a whole but as a set of unrelated compartments defined by cadastral lines. The UCT Forest Precinct boundary is presently clearly defined by a fence and felling/clearing activity adjacent to it. It is clear from other reports that the southern boundary was ‘revealed’ after an old *Eucalyptus* firebreak was felled. The western upslope boundary is also more defined now that the older trees that comprised the avenue are gone. Fortunately there is still canopy that merges over the approach Avenue providing a sense of real enclosure before arriving at Rhodes Memorial. The UCT Forest Precinct is most successfully connected to the broader landscape in the North (Figure 12).

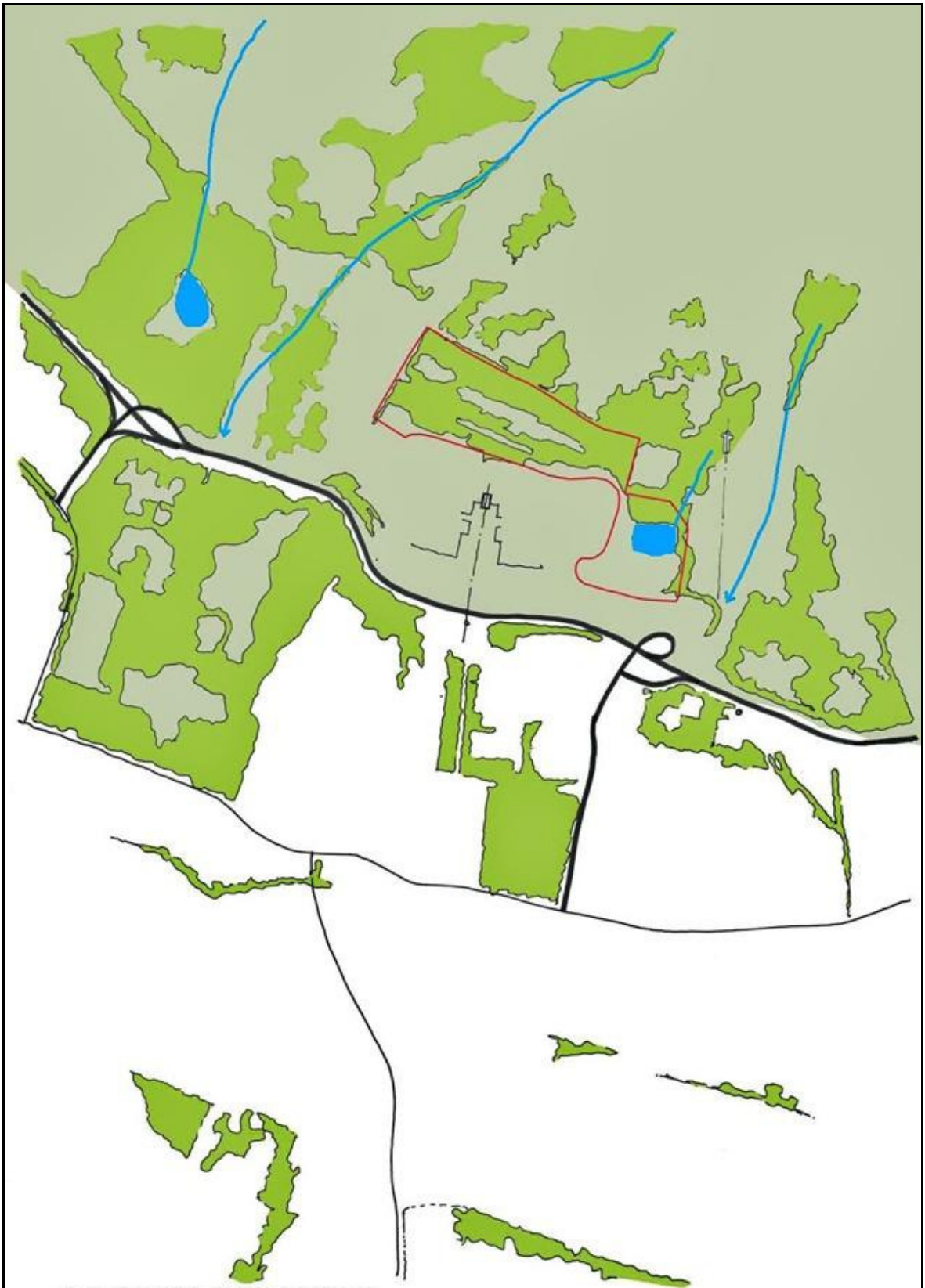


Figure 12: The UCT Heritage Park within the broader landscape (not to scale)

5. MANAGEMENT FRAMEWORK AND SPATIAL CONCEPT

This section presents the proposed Management Framework for the UCT Heritage Park. It sets out the draft guiding principles, management vision, mission and key outcomes for the management of the Forest and Dam Precincts. These have been developed in discussion with key stakeholders and the UCT Planning and Services Department.

5.1 Performance criteria

It is proposed that the performance criteria, set out in the UCT, Rondebosch/Observatory Campus: Development Framework Plan (DFP) and revised in 2010¹⁵, (defined to guide and form the basis of evaluation of all future spatial proposals), be used to inform the spatial concept and evaluate the management proposals for the UCT Heritage Park. These performance criteria are as follows:

- **Equity:** relates largely to the issue of access, particularly for those on foot and those with disabilities;
- **Integration:** with the surrounding community, local urban systems especially access and transport systems, between various parts of the campus and departments and between people historically separated by social and cultural barriers. The last aspect is proposed to be addressed through the creation of a system of informal, public gathering spaces;
- **Dignity:** infers that by the making of an environmentally and socially supportive environment, there is support for the campus as a key social and educational institution of excellence;
- **Heritage conservation:** refers to the need to respect architecturally-, horticulturally- and culturally significant buildings, landscapes and use patterns, etc.; and,
- **Landscape, Placemaking and Legibility:** refers to the need to focus on the nature and quality of open space linking the built precincts, buildings and surrounding landscapes, the object being to make the public realm more humanely scaled, safer, more comfortable and coherent.

5.2 Management vision/goal

The proposed vision or goal of management of the UCT Heritage Park is as follows:

The development and management of the UCT Heritage Park enhances the cultural and natural heritage landscape values associated with Groote Schuur Estate and the UCT Campus in general.

5.3 Management mission/purpose (overall outcome)

The proposed mission or purpose of management for the UCT Heritage Park is as follows:

The UCT Heritage Park is a vegetated backdrop to UCT's Upper Campus and is managed for the ecological, social and economic benefits to the university community and the general public in ways that are appropriate within the natural and cultural heritage landscape context.

¹⁵ These were defined to guide and form the basis of evaluation of all future spatial proposals

5.4 Key result areas / outcomes for managing the Forest

There are four proposed key result areas or outcomes:

Outcome 1: Land use management enhances the overall social, ecological and economic benefits to the UCT community.

Outputs:

- Formalise a land use management framework for the UCT Heritage Park;
- Limit expansion into forest areas by “creeping land uses” (e.g. expanded parking areas, more tennis/netball courts/expanding compost area);
- Delimit extent and improve management of composting area; and,
- Prevent dumping at the site by controlling vehicular access.

Outcome 2: Management and regeneration of vegetation maintains a vegetated backdrop to Upper Campus comprised of Stone Pines and a mosaic of Afromontane Forest and Peninsula Shale Fynbos elements, which is integrated with the surrounding cultural heritage landscape.

Outputs:

- A UCT Heritage Park Management Landscape Plan provides for effective integration with the landscape and vegetation management of Groote Schuur Estate by SANParks and limits impacts of the implementation programme;
- Invasive alien plants are managed in partnership with SANParks in order to ensure the most effective outcome while limiting visual impact, soil erosion and fire risk;
- An assessment of senescing trees is undertaken on an annual basis and identified trees are removed where they pose a danger to public safety;
- Forest regeneration ensures that canopy height is maintained through the planting of Stone Pines with the introduction of indigenous elements of Peninsula Shale Fynbos and Afromontane Forest (in wetter areas that are protected from wind);
- Find opportunities to showcase elements of the natural vegetation of the Cape Peninsula, including elements of Temperate Afromontane Forest as well as Shale Fynbos, etc.;
- Ensure screening of parking areas through the planting and maintenance of appropriate trees and shrubs.

Outcome 3: Access, safety and security of users are improved.

Outputs:

- Improve pedestrian access and safety through formalising access and paths in a manner that is integrated with the adjacent areas (includes improved pedestrian walkway to stile along Ring Road);
- Increase passive surveillance and upgrade boundary fence on northern boundary and create formalised pedestrian access from Rhodes Memorial Road;
- Formalise access to emergency facilities, e.g. fire hydrants and turning circles for emergency vehicles;
- Pursue opportunities to create a network of outdoor performance, classroom, reflection and viewing platform areas;

- Improve the use and management of facilities on site as a destination for UCT related events as well as for uses by external parties.

Outcome 4: Regeneration and management are supported through sustained funding sources and provide work opportunities for local contractors.

Outputs:

- Establish a cost effective implementation plan for removal of timber that may have value, for example, the blackwood trees that could be removed individually and the Cluster Pines that could be cleared in blocks;
- Establish a UCT Heritage Park Management Endowment Fund which can grow a capital base through donations by the Alumni through sponsorship of tree plantings or other components of implementing the spatial concept, e.g. pathways, meditation areas, viewing areas, benches/seating;
- Opportunities for work creation in the implementation plan are pursued in partnership with surrounding landowners.

5.5 Spatial concept

The Spatial Concept has carried forward the performance criteria and translated the above outcomes into spatial proposals for the UCT Forest and Dam Precincts (Figure 13).

Described in more detail below, the key elements of the preliminary spatial concept include:

- Formalising pedestrian access on the northern boundary;
- Creating improved pedestrian linkages across and into the site;
- Formalising access and vehicle turning areas in proximity to fire hydrants and for facilities management;
- Reinforcing features in the landscape through pathways, viewing and seating areas and through vegetation clearing and plantings;
- Providing for canopy height through the management of a managed forest of exotic (alien) Stone Pines and indigenous elements;
- Providing for areas of Afromontane Forest on the wetter and more protected part of the site associated with proposed viewing platform/meditation/small outdoor classroom areas;
- Introducing elements of Peninsula Shale Fynbos in areas that provide for continuity of management with SANParks and Groote Schuur Estate on the edges of the forest, screening of the composting areas as well as parking areas during the implementation of the plan, and the establishment of exotic (non-invasive alien) and indigenous forests.

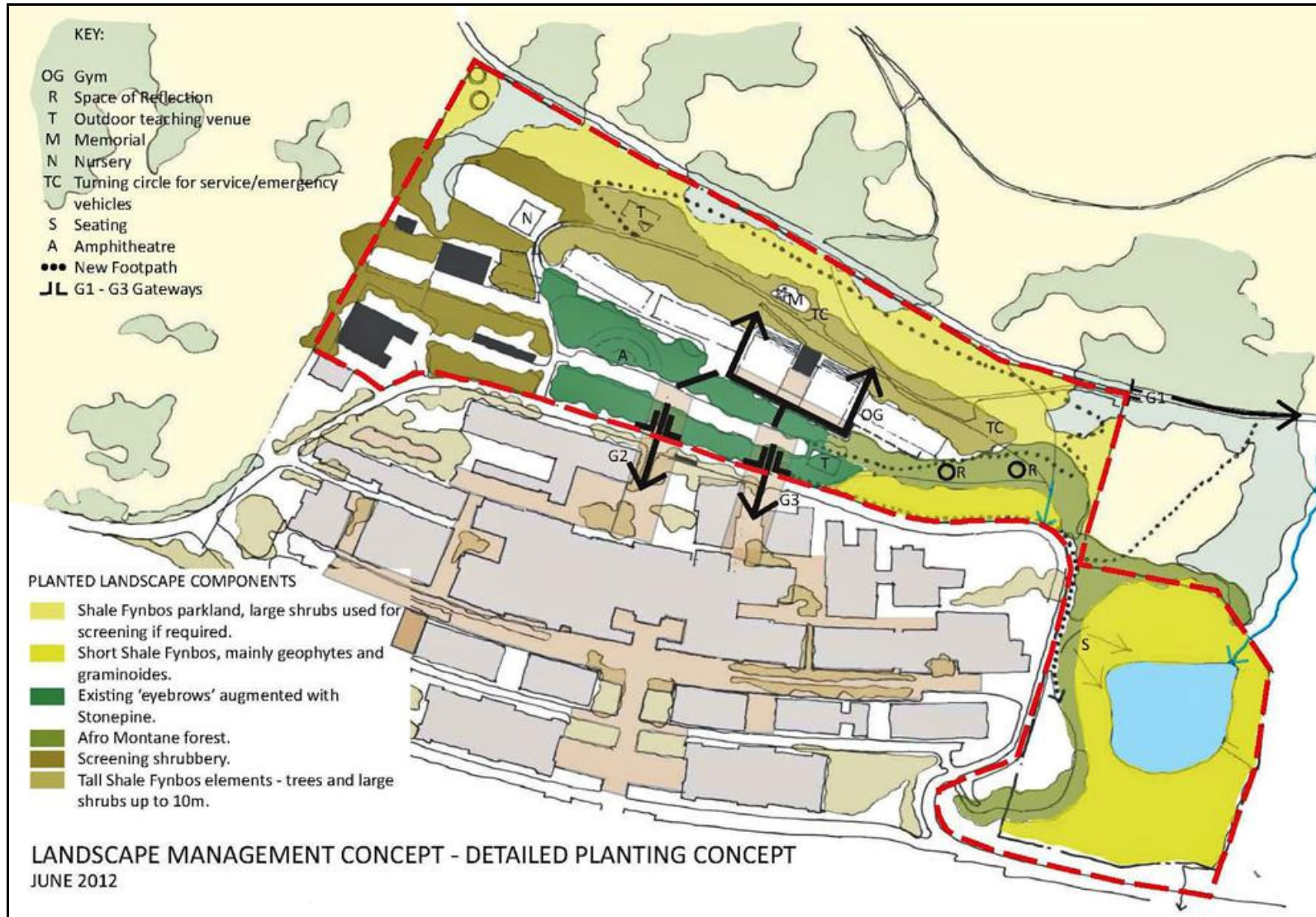


Figure 13: Detailed spatial concept for the UCT Heritage Park (sections 5.5.1 and 5.5.2)

5.5.1 Description of hard and structural landscaping features

The following (illustrated in Figure 13) provides a more detailed description of the various components of the spatial concept visualised for the UCT Heritage Park:

The amphitheatre:

This feature is proposed to be a small amphitheatre (seating around 100-150 people), with formalised masonry and grass terraces for seating in the half round. Other infrastructure might include a power source and low level lighting. A venue for informal gatherings and quiet lunchtime escapes through the week and a low key venue for small evening and weekend performances. A further benefit of the location is that the tennis club facilities could be used for catering, ablutions, etc.

Outdoor teaching spaces:

These are proposed as demarcated area/s of approximately 65 m², accommodating approximately 30 students. With no formal seating, the area/s could be defined by a low stone wall, or comprise a raised timber platform above the ground therefore keeping activities focused in one spot. The area/s will require no power or lighting but investment in landscaping elements to define the area. Two such spaces are proposed: the first within the boulder clearing; and the second at the northern end of P15 where the ground is relatively flat and shaded.

Spaces of reflection:

These features are proposed to be located below the northern most tennis courts, along the new path, with views out towards Bellville. Other localities for “introverted spaces” would be within the forest trees, potentially defined by a 400 mm-high stone wall, providing either seating for a small group or a sense of containment for an individual seeking peace and quiet. Each circle would be about 3.5 m in diameter.

Walking / running path:

A barked/mulched surface contained within logs, that runs from the northern end of P15, past the teaching space and the spaces of reflection, upwards over the culvert, zigzagging as appropriate to cross the track later and proceed on towards the top edge of the site where it will follow the contour to the southwest corner of the site above the compost site. From that point it returns to connect with the gravel service track to allow runners/walkers to complete another circuit. A full circuit will be about 1-1.5 km which may not be sufficiently lengthy for longer distance runners who will probably choose to then set out onto the slopes above the site or onto the Rhodes Memorial Road.

Outdoor Gym:

This opportunity could be a means to reinforce the central Tennis Court node. Outdoor gym equipment could encourage people to frequent this central location as an optional use for the site.

Nursery:

The nursery should be optimally located within the precinct presently utilised as a nursery. There will be some administrative requirements to ensure interdepartmental engagement in order to facilitate the sharing of these resources / facilities.

An alternative location is at the gateway end of the compost site, however green house structures can be extremely visually intrusive and it would be ideal to limit structural and infrastructural development to areas presently developed (i.e. the existing nursery). The need for screening of

the compost site and greenhouses would increase, as would the challenge of security, since vegetation would have to be of a significant scale to screen nursery structures in this location.

Planted beds / garden:

Terracing will need to be undertaken in some areas given the vulnerable nature of the slopes post clearing. However, the concept of a manicured garden is inappropriate in this context, where the landscape needs to align with the slopes above. Intervention planting will be necessary, in some places, to initiate growth of certain selected species. Formal garden beds are expensive to maintain, and the proposal for using appropriate locally indigenous species, to provide long term vegetation cover, is a low maintenance solution.

Network of public open spaces:

There is a strong need to connect the site more boldly to the rest of UCT Campus. The north and south stair entrances on to P15 need to be redesigned as more generous gateway sites. The south stair entrance is visually receptive but additional lighting, pruning and some paved thresholds will greatly improve the present situation. The north entrance needs appropriate realignment and the stairs should be rebuilt with additional lighting, pruning and paved areas to reinforce the notion that one is passing through a gateway, or to 'announce' the stairs both above and below.

The Tennis clubhouse venue is presently a central focus of the precinct and the end destination of all routes in Campus. Defining the edge to the lawn (using e.g. a low stone/masonry retaining wall) will provide a clear approach to the tennis clubhouse, which is presently lacking. A quick route down from the service track would reinforce the node and contribute to a safer precinct by increasing permeability and legibility. Furthermore, an outdoor gym within the node, as described above, will help to increase levels of activity and passive surveillance over the site.

It is vitally important to build a formal pedestrian sidewalk from the northern lane towards the dam precinct as another important recreational landscape. A suitable sidewalk would offer safe access to the Rhodes Memorial stile and the dam. An impact of this is that UCT will lose parking bays (potentially over 30 in number) unless a path can be cut into the slope above the existing parking, or a boardwalk constructed on the slope. Further, caution will need to be exercised about planting trees above the dam along the Ring Road, since planting may obstruct the ideal location for such a pedestrian footway.

Finally, It is with concern that it is noted that UCT continues to build above Ring Road. Extending the crèche and parking areas is inconsistent with UCT planning policy. In order to be serious about changing mind-sets regarding the use of cars, further restricting vehicles on campus will be necessary. The extension to the crèche and buildings will need to be visually screened by planting and this requires appropriate consideration by (at least) the UB&DC and PPLSC.

5.5.2 Description of soft landscaping elements

A selection of appropriate, locally indigenous, plant species proposed for each of these categories (illustrated in Figure 13) is listed in Appendix 2.

Screening Shrubbery

This describes a dense planting of endemic large shrubs and small trees to create an impenetrable barrier. To prevent the shrubbery from becoming a security hazard a thorny element should be included – *Gymnosporia buxifolia* and *Putterlickia pyracantha*, two widely spread Peninsula species, are ideal spinescent candidates for this purpose. Some of the tree elements will, in the very long term, be over 4 m.

The role of screening shrubbery is to provide a dense screening shrubbery, 2 – 4 m in height, to break view lines into or from the site and hide unsightly elements in the landscape.

Afromontane Forest

Typical Afromontane forest describes an area with a closed canopy, created using species typical of the Peninsula forests, with low undergrowth. Smaller tree species create the forest margin and integrate with the adjoining planted landscape components.

The role of this category is to create and maintain a pleasant shady environment, with open view lines through the trunks, for recreation, meditation or teaching nodes.

The forest will form a strong green back drop to the campus and, with a canopy height of around 10 m, serve a useful screening function of the campus from above.

Shale Fynbos Parkland

The parkland comprises scattered small trees, creating an open parkland feel, under-planted with grass or Low Shale Fynbos (see below) elements. Included are some areas or clumps of larger shrubs, planted to create barriers; break view lines and act as well-placed windbreaks.

The parkland role is to create a pleasant recreational area that is sufficiently open to provide a sense of security. The trees (height of 4 – 5 m – some up to 10 m eventually) will supply some screening and reinforce the green eyebrow of the forest.

Short/low Shale Fynbos

The low Fynbos element comprises small shrubs and geophytic herbs, forming a low planting suitable to be grown on the dam wall and the slopes below. The average height would be less than 1 m with some slightly taller species emerging from the low canopy.

The vision here is to replace the existing Kikuyu green desert with locally endemic flora that will blend into the adjacent Shale Fynbos Parkland.

Tall Shale Fynbos

The taller Fynbos is proposed as a dense planting made up predominantly of small trees and large shrubs, endemic to the area.

With a height of 4 – 5 m, the Fynbos will perform a strong screening role, while at the same time forming an attractive backdrop to the tennis court area. Some of the species will eventually reach closer to 10 m in height, connecting this with the Afromontane forest.

Existing Pine “Eyebrows”

This area presently consists of plantings of Stone Pines, other appropriate, non-invasive exotic species (e.g. Pin Oak) and some indigenous species that form the existing strong green “eyebrow” above the campus and below the tennis courts.

The role of the planting would be to strengthen and maintain the iconic green backdrop to campus and perform a strong screening function: of the parking and tennis courts from below and the campus from above.

By maintaining the grass under-plantings a pleasant recreational space is created and this would be a perfect area to locate an amphitheatre under the existing pine canopy.

Senescent trees need to be removed. All the gaps should be planted with Stone Pine to rejuvenate the pine wood.

To help create a gate way from campus to the Heritage garden the line of the Pin Oak avenues planted on North and South lane should be continued up the sides of the stairs, using appropriate locally indigenous tree species such as *Cunonia capensis* and *Nuxia floribunda*.

5.5.3 Phase One interventions and actions for the soft landscaping elements

The following summarises the initial, First Phase activities required to accomplish the soft landscaping of the UCT Heritage Park which apply, in general, to both precincts in terms of vegetation management.

- Develop screening shrubbery around compost area;
- Clean up Pine Eyebrows and plant additional locally indigenous trees to replace senescent Stone Pine and Pin Oaks (refer to Appendix 2 for suggested species);
- Clear area above the tennis courts and just above the service road and revegetate with plantings of Tall Shale Fynbos;
- Clear pines, etc. from the area just to the north of the Tennis courts and replant with Afromontane forest;
- Develop the running track and use wood chips from clearing for mulch;
- Develop a teaching node and space (or spaces) of reflection– if *Eucalyptus* specimens have been felled, the logs from these can be used for seating and retaining; and,
- Clear the alien species growing under the pines and promote the growth of any surviving indigenous species with careful pruning.

6. SUMMARY OF RECOMMENDATIONS

The professional team recommends that the Physical Planning and Landscape Subcommittee (PPLSC) and the University Building and Development Committee (UB&DC) adopt the recommendations made in this report. Specifically that the vision for a UCT Heritage Park is adopted and carried forward as a funded project together with institutional partners and stakeholders. The following sets out the specific recommendations:

1. Adopt the Vision and Management Framework for the UCT Heritage Park

- Ensure all key stakeholders are party to the adoption of the vision and management framework;
- Adopt the Management Framework and set timeframes to proposed outcomes and outputs.

2. Adopt the Spatial Concept as a development plan/framework for the future UCT Heritage Park

- Establish the UCT Heritage Park Project and ensure that all challenges to implementation are dealt with according to appropriate UCT planning and environmental policies;
- Ensure effective communication of the intentions and management proposals.

3. Establish a UCT Heritage Park Project

- Develop a funded UCT Heritage Park project which can attract internal, external and proposed endowment funding;
- Use the Management Framework to schedule phased activities for each of the proposed outputs. The team has provided an initial activity schedule which needs to be refined on the basis of available budget for the implementation of the UCT Heritage Park project.

Table 2: Proposed outputs and phased activities for each outcome, towards management of the UCT Heritage Park

Outcome 1: Land use management enhances the overall social, ecological and economic benefits to the UCT community.

Output 1.1) Formalise detailed land use management framework for the UCT Forest Precinct and Dam area		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Adoption by UB&DC and UCT Council of the UCT Heritage Park Spatial Concept as the management framework for the forest and dam precincts.	Identify and implement feedback mechanisms regarding safety, use and management.
	Department of Properties and Services to commission the detailed Implementation Plan	
	Ensure that the Spatial Concept is translated into an implementation plan.	5-yearly review of management and implementation
	Implement the Management Framework with design proposals for costing	5-yearly review of management and implementation
Output 1.2) Limit expansion into forest areas by “creeping land uses” (e.g. expanded parking areas, more tennis/netball courts/expanding compost area)		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Incorporate the Spatial Concept into the Development Framework Plan	
	Define extent of existing building precincts and composting sites	Monitor “creep” to ensure integrity of UCT Heritage Park
	Plant screening element for composting site	Maintenance of vegetation
	Define extent of existing nursery, crèche etc with new planting / fence elements	Maintenance of vegetation
Output 1.3) Delimit extent and improve management of composting area		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Formalise activities to be accommodated at compost site including nursery component if necessary	5-yearly review of management and implementation
	Plant appropriate screening vegetation to define a boundary	
Output 1.4) Prevent dumping at the site by controlling vehicular access		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Define a strategy to limit car entry to beyond public parking. This may be as simple as installing a gate	Review strategy at 5-yearly intervals

Outcome 2: Management and regeneration of vegetation maintains a vegetated backdrop to Upper Campus comprised of Stone Pines and a mosaic of Afromontane, Peninsula Shale Fynbos, which is integrated with the surrounding cultural heritage landscape.

Output 2.1) A Forest Regeneration and Management Landscape Plan provides for effective integration with the landscape and vegetation management of Groote Schuur Estate by SANParks and limits impacts of the implementation programme		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Coordinate with SANParks – establish a mutually acceptable process to ensure ongoing engagement	Ongoing formalised liaison with SANParks
	Extend the line of the Pin Oak avenues on North and South Lane over Ring Road and along the	Maintenance of senescing trees Planting with appropriate locally

	entrance stairs improving the link and reinforcing the connection	indigenous tree species where necessary Replacement of dead trees with appropriate, locally indigenous tree species
Output 2.2) Invasive alien plants are managed in collaboration with SANParks in order to ensure the most effective outcome while limiting visual impact, soil erosion and fire risk		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Identify invasive alien plants (IAPs), ensure personnel are trained to identify these species correctly and use appropriate methods of control	Ongoing training Ongoing IAP control
	Remove all IAPs seedlings and saplings annually - IAP control ongoing	IAP control ongoing
	Remove Cotoneaster hedge below parking area	
	Ensure liaison with SANParks and potential use of trained SANParks alien clearance teams	
Output 2.3) An assessment of senescing trees is undertaken on an annual basis and identified trees are removed where they pose a danger to public safety		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Identify all potentially dangerous specimens	Annual assessment
	Remove problematic trees on an annual basis	Annual removal – where necessary replanting with appropriate species
Output 2.4) Regeneration of the UCT Forest Area actively seeks to showcase indigenous vegetation while ensuring that non-invasive alien tree elements associated with the surrounding cultural landscape are replanted and maintained		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Establish “nurse” planting of Keurboom for all indigenous tree areas to provide fast height and provide a “forest” environment sheltering slower elements and encouraging slower trees to seek light and grow upwards. Plant selected indigenous trees species. Establish and maintain indigenous forest	Maintenance, remove senescent Keurboom specimens where necessary Planting where necessary
	Plant screening shrubbery where required by detailed landscaping plans Initial planting with annual maintenance = irrigation initially; pruning where necessary, replacement of dead plants	Annual maintenance = • initial irrigation for plant establishment; • pruning where necessary; and, • replacement of dead plants when necessary
	Clear and plant the Strip along (above & below) the road above the Tennis Courts to just past the new path. Clearing above and below road; plant with appropriate species; annual maintenance	Annual maintenance
	The “Eyebrows” to be tidied up and additional trees planted. “Overflow” Stone pines along the Rhodes Memorial road, could also be planted (this would	

	involve removing cluster pines in these areas	
	Planning and layout of Reflection and Teaching Areas followed by initial clearing, construction and appropriate planting. Maintenance required.	Maintenance of vegetation
	The running track to be laid out and mulched. Planning and layout of area. Maintenance (will require annual re-application of mulch)	Maintenance (annual re-application of mulch), pruning of vegetation along track
	Replace kikuyu grass (<i>Pennisetum clandestinum</i>) on steep slope above Ring Road and the dam edges using the geophytic and graminoid elements of Shale Fynbos	
Output 2.5) Ensure screening for parking areas through the planting and maintenance of appropriate trees and shrubs		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Plan final landscape design for screening vegetation Planting appropriate indigenous screening shrubs / small trees Initial maintenance	Ongoing maintenance (pruning, replacement of dead plants)
Outcome 3: Access, safety and security of users are improved.		
Output 3.1) Enable improved physical and perceptual linkages between Upper Campus and the UCT Forest Area		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Undertake detailed design of upgraded gateways and routes connecting these to the rest of the network down-slope	Maintain gateway upgrades and downslope interventions
	Upgrade existing gateway points and access routes to tennis Club according to approved design	Maintenance
Output 3.2) Improve pedestrian access and safety through formalising access and paths in a manner that is integrated with the adjacent areas (includes improved pedestrian walkway to stile along Ring Road)		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Undertake detailed design for costing and clear site of parking	Ensure successful implementation and maintenance.
	Construct formalised NMT path between existing South Lane bus stop and stile	Ensure security reports feed back into management of the paths
Output 3.3) Increase passive surveillance and upgrade boundary fence on northern boundary and create formalised pedestrian access from Rhodes Memorial Road		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Compile more detailed Landscape Framework Plan with repeat elements for fund raising	
	Design and construct small gateway element	
	Upgrade and maintain boundary fence	Fence maintenance
	Install CCTV cameras	Maintain vegetation to ensure surveillance is possible
Output 3.4) Formalise access to emergency facilities, e.g. fire hydrants and turning circles for emergency vehicles		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Compile Fire Management Plan (in consultation	5-Yearly review of Fire

	with SANParks and the City of Cape Town)	Management Plan, with collected fire data from previous years.
	Design and construct necessary road space and infrastructure for fire fighting	Maintenance of road, infrastructure, equipment.
Output 3.5) Pursue opportunities to create a network of outdoor performance, classroom, reflection spaces and viewing platform areas		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Compile more detailed Landscape Framework Plan with 'repeat elements' for fund raising	Funding Drive/s and funding mechanisms to be ongoing
	Design and Construct 'demonstration' projects (1 x teaching space, 1 x reflection space)	Maintenance Construction of more teaching or reflection spaces if demand is evident
Output 3.6) Improve the use and management of facilities on site as a destination for UCT related events as well as for uses by external parties		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Compile more detailed Landscape Framework Plan including strategy on how to upgrade paths to Tennis Court club and create more qualitative outdoor space in front of clubhouse	
	Construct low wall, lighting and formalised access route from parking area	Maintenance of infrastructure
	Department of Property and Services' current policy may require review in order to accommodate the proposed, and/or identified, use and management of facilities	
	Marketing and fund raising plan for suggested upgrades and amphitheatre	

Outcome 4: Regeneration and management are supported through sustained funding sources and provide work opportunities for local contractors.

Output 4.1) Establish a cost effective implementation plan for removal of timber that may have value, for example, the blackwood trees that could be removed individually and the cluster pines that could be cleared in alternating blocks		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Initiate a tender process for tree removal and appoint a suitable contractor to remove invasive and senescing trees	Continued removal if all mature invader species have not yet been removed
Output 4.2) Establish a UCT Forest Management Endowment Fund which can grow a capital base through hosting outdoor events and donations by the Alumni through sponsorship of tree plantings or other components of implementing the spatial concept, e.g. pathways, reflection spaces, viewing areas, benches/seating		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Utilise the expertise available from the Graduate School of Business and UCT Finance Departments to identify appropriate options and opportunities	Administrative control Funding drives Alumni notifications Alumni bequests

Output 4.3) Opportunities for work creation in the implementation plan are pursued in partnership with SANParks and other parties		
Activities	Phase one (1-5 years)	Phases 2 and 3 (6-15 years)
	Request a list of approved small contractors	
	Pursue a Memorandum of Understanding	

7. STAKEHOLDER INVOLVEMENT

Two stakeholder meetings have been held in the previous phases of work in this study to discuss the Situational Analysis (14 June 2011) and the Draft Management Framework and Spatial Concept (29 September 2011). Further, a Reference Group was convened during November 2011 and again during March 2012 to enable the refinement of the Management Framework and the Spatial Concept.

A further and final stakeholder meeting will be held on 15 August 2012 to present and receive feedback on the draft final report recommendations prior to its finalisation. The report will be available for comment for a further two weeks after the final stakeholder meeting. The comment period will thus close on 31 August 2012.

Please refer to the UCT Events website (www.uct.ac.za/calendar/events/seminars/) for details of the final stakeholder meeting on 15 August.

Stakeholders are encouraged to engage in refining the recommendations set out in this report.

8. KEY QUESTIONS FOR STAKEHOLDERS

In finalising the proposals and implementation recommendations for this study, the following feedback would be helpful to the team:

- Are you in agreement with the proposed vision, mission and outcomes for management of the UCT Forest?
- What are your comments with respect to the Spatial Concept for UCT Heritage Park?
- What scope exists for involvement of UCT stakeholders in realising the Heritage Park vision?

Please send your comments to:

Marlene Laros: UCT Forest Management Framework, mtlaros@mweb.co.za, Ph: 021 7801120, Fax: 0866845834, Mobile: 0833259964.

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9.1. Scientific and other publications

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9.2 Broader planning and policy documents

- City of Cape Town Spatial Development Framework, 2012
- City of Cape Town Spatial Development Plan: District D – Draft, 2011.
- Western Cape Provincial Spatial Development Framework (PSDF), 2011.
- City of Cape Town Floodplain and River Corridor Management Policy, 2009.
- Draft Cape Town Development Edge Policy, August 2009.
- City of Cape Town Biodiversity Network, 2009.

- City of Cape Town's Management of Urban Stormwater Impacts Policy, 2009
- City of Cape Town Integrated Metropolitan Environmental Policy (IMEP): Cultural Heritage Strategy, 2005
- Draft Cape Metropolitan Open Space System (CMOSS), 2005.
- The Scenic Drive Network: Management Plan: February 2002.
- Metropolitan Spatial Development Framework (MSDF), 1996.
- Groote Schuur Estates Landscape Management Plan, 1992 (prepared for the Department of Public Works and Land Affairs).
- Cape Metropolitan Area: Guide Plan (Urban structure Plan), 1988.

9.3 Relevant SANParks documents

- Conservation Development Framework: 2006-2011, Volume 1, Prepared by South African National Parks: Table Mountain National Park.
- Groote Schuur Estate: Conservation and Development Framework:
 - ★ Phase 1: Analysis and Preliminary Recommendations, June 2000, Final Draft, CNDV.
 - ★ Phase 2B: Detailed Planning and Management Proposals, September 2002, CNDV.

9.4 Other relevant UCT documents

- University of Cape Town: Rondebosch/Observatory Campus: Development Framework Plan, UCT: Physical Planning Unit, Revised March 2010.
- Long Term Spatial Development Framework and Urban Design Concept for the University of Cape Town, 2005, prepared by Dewar, Southworth and Louw.
- Landscape Framework Plan for UCT (LFP), Dec 2006, Prepared by Bernard Oberholzer Landscape Architect for UCT: Physical Planning Unit.
- UCT Green Campus Action Plan, Dec 2008.

9.5 Forest studies and surveys

- Survey of trees on the Groote Schuur estate of the University of Cape Town: Inventory and tree Management Plan, 2002, prepared by Noelene le Cordier
- A management plan for the UCT Forest, 2009, prepared by Kirsten Gallaher.

9.6 Other legal and policy texts

- DEAT, Integrated Environmental Management (IEM) Guidelines Series (2002).
- Western Cape DEA&DP NEMA Guideline and Information Document Series (2006).
- DEA&DP's Guideline for Involving Heritage Specialists in EIA Processes (2005)
- DEA&DP's Guideline for Involving Visual Specialists in EIA Processes (2005)
- DEA&DP's EIA Guideline Series: Guideline for the Management of Development on Mountains, Hills and Ridges of the Western Cape (2002)
-

Table A: Provincial and National level legislation referred to in this text:

Name	Synonym/acronym	Act number and date
Constitution of South Africa	The Constitution	Act 108 of 1996.
National Water Act	NWA	Act 36 of 1998.
National Environment Management Act	NEMA	Act 107 of 1998.
National Environmental Management Biodiversity Act	NEMBA	Act 10 of 2004.
Conservation of Agricultural Resources Act	CARA	Act 43 of 1983.
National Veld and Forest Fire Act	NVFFA	Act 101 of 1998.

National Heritage Resources Act	NHRA	Act 25 of 1999.
Rhodes' Will	Groote Schuur Devolution Act	Act 9 of 1910.
Western Cape Land Use Planning Ordinance	LUPO	Ordinance 15 of 1985.

APPENDIX 1: REPORT ON THE FOREST BY SOUTH WESTERN TIMBERS CC

South Western Timbers cc
 VAT: 4140232275
 Reg.Nr. 2006/028868/23

17 Falaise Street
 Paarl 7646
 29 May 2012

To: Sandra Rippon and Marlene Laros

RE: Report on the Forest above the University**Species mix**

Most of the trees are *Pinus pinaster*, the most invasive of pine species in South Africa. The trees are generally healthy, but some are dead while others are dying.

These trees are mature and will start dying off as in nature to make room for young trees growing from seed. Once the canopy is removed, seed would immediately germinate to form a carpet of new trees. These seedlings can easily be eradicated with Glyphosate. There could be as much as 2000 cubic metres of *Pinus pinaster*. It is valued at R200 per cubic metre standing and would be used in the making of pallets. In the map attached called UCT species, the area marked in black, shows where the majority of *Pinus pinaster* is situated.

The Blackwoods (*Acacia melanoxylon*) trees are few and in general good health. There have to be no rush to fell these trees for health reasons. Once the canopy is disturbed though, thousand of seeds will germinate, which would require chemical treatment. Any Glyphosate product could be applied at 6 litres per hectare and would effectively kill the seedlings at little cost. The most valuable tree in the forest, where logs can fetch up to R2800 per cubic metre, but buyers of these logs are mostly situated around Knysna and transport cost would bring the standing price to around R800 per cubic metre. There is less than 40 cubic metres of Blackwood in the forest.

The remaining trees are *Pinus pinea* (Stone pine) and there are few of them. Their general health is poor with most of them situated above the dam with many dead and blown over. These trees are not aggressive invaders, but have reached senescence and should be harvested to recover some commercial value. The least valuable species on the site, it would fetch R80 to R100 per cubic metre standing on the open market. There is around 80 cubic metres of Stone pine in the forest. In the map attached called UCT species (Figure A below), the area marked in yellow, shows where the majority of *Pinus pinea* is situated.



Figure A: Yellow hatching indicates main stand of *Pinus pinea*

General recommendation

It would be best to harvest these trees in the next couple of years. The backdrop to the University is important, but in the light that there are many trees remaining in Sanparks just above the University's land, a process of felling these trees in two phases should be considered. The fact that, especially *Pinus pinaster*, is an aggressive invader as can be seen on most of the Table mountain slopes, is further cause to hasten the clearfelling. In the map attached named UCT Proposed clearfelling area Phase 1 (*Figure B below*), the first suggested felling area is marked in green. This would allow for the backdrop to be unchanged for a number of years, while indigenous trees are planted in this area and seedling regrowth of the current species are eradicated. The remaining trees can then be felled in a second phase, five to ten years after completion of the first phase.



Figure B: Green hatching indicates proposed initial first phase felling area

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APPENDIX 2: PROPOSED PLANTED LANDSCAPE COMPONENTS

Name: Screening Shrubbery

Description:

A dense planting of endemic large shrubs and small trees to create an impenetrable barrier. To prevent the shrubbery from becoming a security hazard a thorny element should be included – *Gymnosporia buxifolia* & *Putterlickia pyracantha* two widely spread Peninsula species would be ideal candidates for this. Some of the tree elements will in the very long term will be over 4m

Role:

A dense screening shrubbery to break view lines and hide unsightly elements in the landscape.

Height: 2-4m

Plant species:

Canthium inerme
Cassine peragua
Diospyros glabra
Diospyros whyteana
Gymnosporia buxifolia
Halleria lucida
Kiggelaria africana
Maytenus acuminata
Olea europaea subsp. *africana*
Protea coronata
Protea lepidocarpodendron
Putterlickia pyracantha
Pterocelastrus tricuspidatus
Rapanea melanophloeos
Rhus angustifolia
Rhus tomentosa

Name: Afro-montane Forest

Description:

The afro-montane Forest would be an area with a closed canopy, created using species typical of the Peninsula forests, with a low under storey.

The smaller tree species will create the forest margin and integrate with the adjoining planted landscape components.

Role:

Create a pleasant shady environment, with open view lines through the trunks, for recreation, meditation or teaching nodes.

The forest will form a strong green back drop to the campus and serve a useful screening function of the campus from above.

Height: 10m

Plant species:

Trees:

Apodytes dimidiata
Canthium inerme
Cassine peragua
Cunonia capensis

Curtisia dentata
 Diospyros glabra
 Diospyros whyteana
 Halleria lucida
 Ilex mitis
 Kiggelaria africana
 Maytenus acuminata
 Myrsine africana
 Nuxia floribunda
 Ocotea bullata
 Olea capensis subsp. macrocarpa
 Olea europaea subsp. africana
 Olinia ventosa
 Podocarpus latifolius
 Pterocelastrus tricuspidatus
 Rapanea melanophloeos
 Virgilia oroboides

Understorey:

Blechnum tabulare
 Dietes iridioides
 Rumohra adiantiformis
 Todea barbara
 Oplismenus hirtellus

Name: Shale Fynbos Parkland

Description:

Scattered small trees, creating an open parkland feel, under planted with grass or Low Shale Fynbos elements. With some areas of larger shrubs, planted to create barriers to break view lines and wind.

Role:

Create a pleasant recreational area that is sufficiently open to provide a sense of security. The trees will supply some screening and reinforce the green eyebrow of the forest.

Height: 4-5 m – eventually up to 10 m for some of the trees.

Plant Species:

Small Trees:

Kiggelaria africana
 Leucadendron argenteum
 Leucospermum conocarpodendron subsp. viridum
 Protea nitida
 Olea europaea subsp. africana
 Maytenus acuminata
 Cunonia capensis
 Maytenus oleoides

Tall Shrubs:

Protea coronata
 Protea repens
 Rhus angustifolia
 Diospyros glabra
 Protea lepidocarpodendron

Rhus tomentosa
 Leucadendron daphnoides
 Leucospermum grandiflorum

Low Shrubs:

Aspalathus cephalotes subsp. Violaceae
 Myrsine africana
 Brunia nodiflora
 Cliffortia polygonifolia
 Cliffortia. ruscifolia
 Cullumia ciliaris
 Cullumia. setosa
 Erica equisetifolia
 Erica hirta
 Erica hispidula
 Erica nudiflora
 Erica parviflora
 Leucadendron sessile
 Leucadendron spissifolium subsp. spissifolium
 Stoebe cinerea
 Anthospermum aethiopicum
 Anthospermum spathulatum subsp. spathulatum
 Aspalathus lebeckioides
 Elytropappus gnaphaloides
 Elytropappus rhinocerotis
 Erica paniculata
 Eriocephalus africanus var. africanus
 Helichrysum pandurifolium
 Helychrysum teretifolium
 Leucadendron salignum
 Protea acaulos
 Protea lorea
 Protea scabra
 Salvia africana-caerulea
 Senecio pubigerus
 Stoebe plumosa

Geophytic Herbs:

Bobartia indica
 Mohria caffrorum
 Watsonia borbonica subsp. borbonica

Graminoids:

Cannomois virgata
 Ehrharta ramosa subsp. ramosa
 Elegia juncea
 Ischyrolepis capensis
 Ischyrolepis gaudichaudiana
 Merxmuellera stricta
 Pentaschistis colorata
 Pentaschistis eriostoma
 Restio triticeus
 Staberoha cernua

Tetraria cuspidata
Ehrharta calycina

Name: Low Shale Fynbos

Description:

Small shrubs and geophytic herbs forming a low planting suitable to be grown on the dam wall and the slopes below..

Role:

Replace the current Kikuyu green desert with locally endemic flora that would blend into the adjoining Shale Fynbos Parkland.

Height: less than 1m with odd slightly taller species.

Plant Species:

Small shrubs

Aspalathus lebeckioides
Elytropappus gnaphaloides
Elytropappus rhinocerotis
Erica equisetifolia
Erica hirta
Erica hispidula
Erica nudiflora
Erica parviflora
Erica paniculata
Eriocephalus africanus var. africanus
Helichrysum pandurifolium
Helychrysum teretifolium
Protea acaulos
Protea lorea
Protea scabra
Salvia africana-caerulea
Senecio pubigerus
Stoebe plumosa

Geophytic Herbs:

Bobartia indica
Mohria caffrorum
Watsonia borbonica subsp. borbonica

Graminoids:

Cannomois virgata
Ehrharta ramosa subsp. ramosa
Elegia juncea
Ischyrolepis capensis
Ischyrolepis gaudichaudiana
Merxmuellera stricta
Pentaschistis colorata
Pentaschistis eriostoma
Restio triticeus
Staberoha cernua
Tetraria cuspidata
Ehrharta calycina

Name: Tall Shale Fynbos**Description:**

A dense planting made up predominantly of small trees and large shrubs endemic to the area.

Role:

A strong screening role while at the same time forming an attractive backdrop to the tennis court area.

Height: 4-5 m – eventually up to 10 m for some of the trees.

Plant Species:**Small Trees:**

Kiggelaria africana
 Leucadendron argenteum
 Leucospermum conocarpodendron subsp. viridum
 Protea nitida
 Olea europaea subsp. africana
 Maytenus acuminata

Tall Shrubs:

Protea coronata
 Protea repens
 Rhus angustifolia
 Diospyros glabra
 Protea lepidocarpodendron
 Rhus tomentosa
 Leucadendron daphnoides
 Leucospermum grandiflorum

Low Shrubs:

Aspalathus cephalotes subsp. Violaceae
 Myrsine africana
 Brunia nodiflora
 Erica equisetifolia
 Erica hirta
 Erica hispidula
 Erica nudiflora
 Erica parviflora
 Leucadendron sessile
 Leucadendron spissifolium subsp. spissifolium
 Eriocephalus africanus var. africanus
 Helichrysum pandurifolium
 Helychrysum teretifolium
 Leucadendron salignum
 Salvia africana-caerulea
 Senecio pubigerus
 Stoebe plumosa

Name: Existing Pine Eyebrows**Description:**

Plantings of Stone Pines, other exotic species and some indigenous species that form the existing strong green eyebrow above the campus and below the tennis courts.

Role:

The iconic green backdrop to campus and a strong screening function: of the parking and tennis courts from below and the campus from above.

By maintaining the grass under plantings a pleasant recreational space is created.

This would be a perfect area to locate an amphitheatre under the existing pine canopy.

Actions:

Senescent trees need to be removed. All the gaps should be planted with Stone Pine to rejuvenate the pine wood.

To help create a gate way from campus to the Heritage garden the line of the Pin Oak avenues planted on North and South lane should be continued up the sides of the stairs, through avenue plantings of selected locally indigenous medium to large tree species such as *Nuxia floribunda* and *Cunonia capensis*.

Plant Species:

Pinus pinea (Stone Pine)

Quercus palustris (Pin Oak)

Nuxia floribunda

Cunonia capensis

Selected tall-growing, locally indigenous ((i.e. naturally present on the Cape Peninsula) tree species which do not have fleshy fruits and which are appropriate for avenue planting.