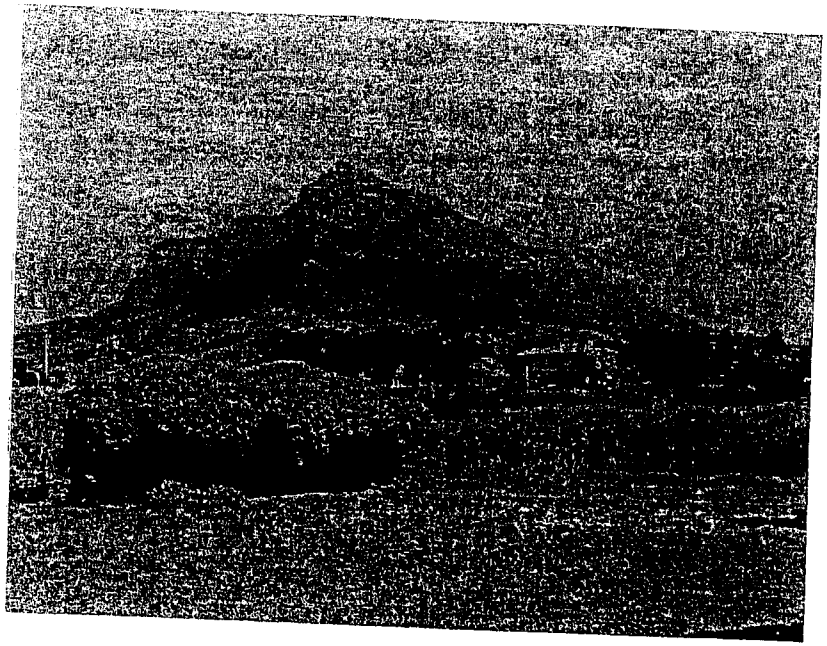
TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 ENVIRONMENTAL MANAGEMENT PLAN

FINAL REPORT



AUGUST 2003
CITY OF CAPE TOWN, CAPE TOWN ADMINISTRATION
ENVIRONMENTAL MANAGEMENT BRANCH

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EXECUTIVE SUMMARY

The Two Rivers Urban Park at the confluence of the Black and Liesbeek Rivers comprises strategically located, culturally and environmentally significant properties for the creation of a park that could fulfill a variety of human and ecological needs in line witn the City's strategies.

The Two Rivers Urban Park Contextual Framework and Phase One Environmental Management Plan has been a fully participative process and the aim of the resultant document is to provide a contextual framework for future development of the Park.

The document has been divided into three main sections i.e. the Contextual Framework, the Phase One Environmental Management Plan and the Proposed Institutional Framework which together will act as an effective tool to manage the Council-owned land and development within the study area.

SECTION 1: INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

The area defined as the Two Rivers Urban Park, located at the confluence of the Black and Liesbeek Rivers (Figure 1: Locality and Figure 2: Study Area), is a special and unique place in Cape Town. The area comprising of sensitive ecological systems and habitats, extensive open space areas, significant institutions, historical buildings and cultural landscapes, provides an ideal space for the creation of a park that fulfils a variety of human and ecological needs and responds creatively to this quality environment.

Within our city there is an urgent need to protect and rehabilitate ecological systems and to encourage mutually beneficial relationships between people and the natural environment. This is recognised as critical to the sustainable development of the city, and hence is a central concern of local government. The area identified as the proposed Two Rivers Urban Park offers an exciting opportunity to address these needs. However, current institutional limitations and budgetary constraints mean that investing considerable financial and human resources in the development and maintenance of parks in the order of Kirstenbosch or the Company Gardens, is unsustainable. Within such limitations and inspired by the idea of the Urban Park, there are considerable opportunities for a proactive and creative approach towards honoring this responsibility. Such an approach has guided the formulation of this Plan.

The aim of the Contextual Framework (CF) and Phase 1 Management Plan is twofold:

- Firstly, to provide a framework for the conservation, rehabilitation and management of the ecologically sensitive areas, open spaces and culturally significant sites into perpetuity so that these can be used for a multiplicity of recreational activities and events.

- Secondly, to provide authorities, landowners and prospective developers with guidance as to the location, appropriate use, scale and intensity of future development opportunities, as well as guidance as to how, through appropriate planning, design and management, development can be integrated with and contribute to the quality of this urban park.

The CF and Phase 1 Management Plan, which originated from the Black River Urban Park SDF and Interim Management Plan, have been a joint effort of the City of Cape Town, the various landowners and interest groups, and individuals engaged in activities in this area. This participatory approach was achieved mainly through the establishment of an Interim Advisory Committee, whose task it was to represent the interests and concerns of the various stakeholders and to input into the formulation of the SDF on behalf of their constituencies. Both the SDF and Interim Management Plan were advertised in October 2000 for comment, and the comments have been taken into consideration. Subsequently, the two documents have been merged.

1.2 THE PLANNING AND PUBLIC PARTICIPATION PROCESS

The Black River Urban Park Development Framework process (now called the Two Rivers Urban Park Contextual Framework) was initiated in July 1998. On 15 August 1998, the first public meeting was held at the River Club. City officials presented information relating to the study area, and outlined the City's vision for the area i.e. that it should be utilised and managed as an urban park. The public were invited to submit their written comments regarding the concept of an urban park. These comments were synthesised into a report, the purpose of which was to guide future

planning and management of the Park.

A second public meeting was held on 24 October 1998 at which it was agreed to elect an Interim Advisory Committee. The committee would act as an advisory body to the City's planning and design team who would begin preparing the development framework, and would be accountable to all stakeholders in the plenary. It was agreed that delegates would represent the following constituencies:

Group A: Provincial Administration of Western Cape (PAWC), former Cape Town City Council, Provincial Department of Health, former Cape Metropolitan Council and South African Astronomical Observatory.

Group B: Private landowners, Social Services, General NGO's, General CBO's, Environmental NGO's and Business.

After the meeting, ballot forms were sent to interested and affected parties who were asked to vote for delegates representing their interests in Group B. A third public meeting was held on 10 December 1998. The primary aim of the meeting was to introduce the elected Interim Advisory Committee to the interested and affected parties.

Council then embarked on the formulation of the Draft SDF. Between January 1999 and April 1999, a series of meetings were held with the Advisory Committee to discuss the framework proposals. The Draft SDF was completed in April 1999, and presented at a public meeting for comment. These comments were minuted, but not included into the document as it was decided to test the viability of the Draft SDF prior to any changes being made.

Consultants were then appointed to undertake a pre-feasibility study to test the viability of the Draft SDF, the primary aim of which was to investigate its environmental, infrastructure services, transport and financial implications. The study was completed in August 1999. Although concern was raised regarding the accuracy of some of the findings, the document did highlight several important issues that would need to be considered in the future development and management of the area. These are listed below:

- The development proposals would not result in any significant ecological impacts, with the exception of the proposed bridge in close proximity to the Valkenberg Wetland, the impacts of which would need further investigation.

- Development must be kept outside the provisional 50-year floodplain at this stage. No infilling of the floodplain should be considered, until more detailed hydrological data becomes available.

- There are no geotechnical constraints within Valkenberg East, Valkenberg West, Maitland Garden Village, most of the Observatory and most of Alexandra Institution. There are however geotechnical constraints at the River Club, Malta Park, Hartleyvale and a portion of the Alexandra Institution.

- Regarding traffic, several upgrades are deemed necessary in 2012 to achieve reasonable volume/capacity ratios. These upgrades will be required by normal background traffic growth. However, additional traffic generated by this development will require the upgrades at certain intersections to be more extensive. Extensive upgrades would be

required at the Liesbeek Parkway/Station Road intersection. Also, minor alterations will be required to the Alexandra Road/Raapenberg Road intersection and Alexandra Road/Berkley Road intersection. Widening of Alexandra Road to a four-lane road between the Valkenberg East access and Raapenberg Road, and widening of Liesbeek Parkway between Station Road and the N2 to a four-lane road will be required.

- The City's bulk sewerage reticulation would need to be upgraded.

- The existing electrical infrastructure will require major upgrading in both Valkenberg East and West. New electrical infrastructure and reinforcement of the existing electrical reticulation will be required for the River Club and Malta Park.

- The Park is not financially viable in terms of the development scenarios presented in the SDF (i.e the amount of envisaged would not, on its own, be able to financially sustain the Park), and therefore alternative funding would have to be sourced.

- Several alternative funding sources were proposed. These included National State funding assistance, Provincial Government contributory funding, overseas donor funding, bond issues by Council, multi national corporate contributions, commercial levy system for developed areas, precinct by precinct funding approach, and matching costs to direct benefits.

- It was also suggested that the improvement of the viability should be investigated in a feasibility study, which should include improvements by alternative development, cost reduction and cost sharing.

- The study indicated that the next step would be to undertake a feasibility study, and outlined the key aspects that should be included.

The findings of the study were presented to the Advisory Committee. The Committee subsequently elected to draw up a Social Contract comprising a broad set of principles to adjudicate proposals for the Park. These were presented at the fifth public meeting that was held on 16 October 1999.

The Social Contract reads as follows:

The community recognises its responsibility to present and future generations to manage and sustain the Urban Park through the co-operation of all sectors and based on these founding principles:

- *A vehicle shall be established to manage the park and determine the best method of lease or freehold principles, including land swops or transfer of development rights, and shall put in place properly measured phases.*

- *Such a body shall establish the optimum way of ensuring long-term sustainability. This includes accepting principles of initial capital contributions, annual operational contributions in cash or kind, public subsidy, philanthropy, and hire or lease.*

- *All precincts shall adhere to an ethic of cohesion and common identity, as part of the Park.*

- *Due process shall be recognised, followed and implemented.*
- *Management and usage shall be innovative and forward thinking.*
- *Integrated management and development principles shall pertain to the sustainability of resources and materials, specifically with regard to water, power and waste.*
- *There shall be recognition of social responsibilities with regard to the institutional heritage of the site, the potential contribution of NGO's/CBO's, and the principles of empowerment and job creation for local and metropolitan communities.*
- *The built environment shall be considered within the context of the existing and demolished footprints and their bulk with due recognition of architectural and aesthetic considerations.*
- *Cognisance shall be taken of the cultural and social significance of all the recognised sites.*
- *The natural environment shall be conserved and rehabilitated through the fullest recourse to legal protection and environmental management principles.*
- *Integrated water catchment management principles should inform appropriate usage of land below the 1 in 50-year flood lines.*
- *Safety and security shall be integral principles of all the precincts.*
- *There shall be maximum public access where feasible.*
- *Transport management shall recognise the desirability of low traffic densities, minimal road networks and appropriate modes of transport.*

At the meeting it was agreed that as a way forward, the Advisory Committee would investigate the establishment of a management body. However, this was not carried out. In July 2000, a Council decision was taken to formulate an Environmental Management Plan for all Council-owned land within the boundaries of the Urban Park to enhance the ecological and recreational functioning of these areas.

The Management Plan was to be structured into two phases. Phase 1, would be an interim Management Plan, identifying broad objectives and policy proposals. Phase 2 would be a comprehensive Management Plan, which would include the identification of priority projects and institutional arrangements. The Phase 1 Management Plan was completed and circulated to the Advisory Committee for comment. It was then advertised for public comment, together with the Draft SDF. Comments received from the public were incorporated into the two documents.

A consultant was appointed to propose a vehicle to address the services issues and to further investigate and consolidate the heritage informants. It was then resolved by Sub-counil 5 in May 2002, that the merged and compelted document be advertised and that the document after all comments have beed addressed, be tabled at the Sub-council5 meeting for its endorsement so that it could be forwarded to the Planning and Environment Portfolio Committee for its approval. It

would hereafter be forwarded to the Executive Council its formal adoption.

Comments received from the Spatial Planning Branch during this process advised that the document be renamed as it is technically not a Spatial Development Framework because design concepts, guidelines and proposed land used were not spatially indicated. It was advised that the document be called the Two Rivers Urban Park Contextual Framework and Phase One Environmental Management Plan.

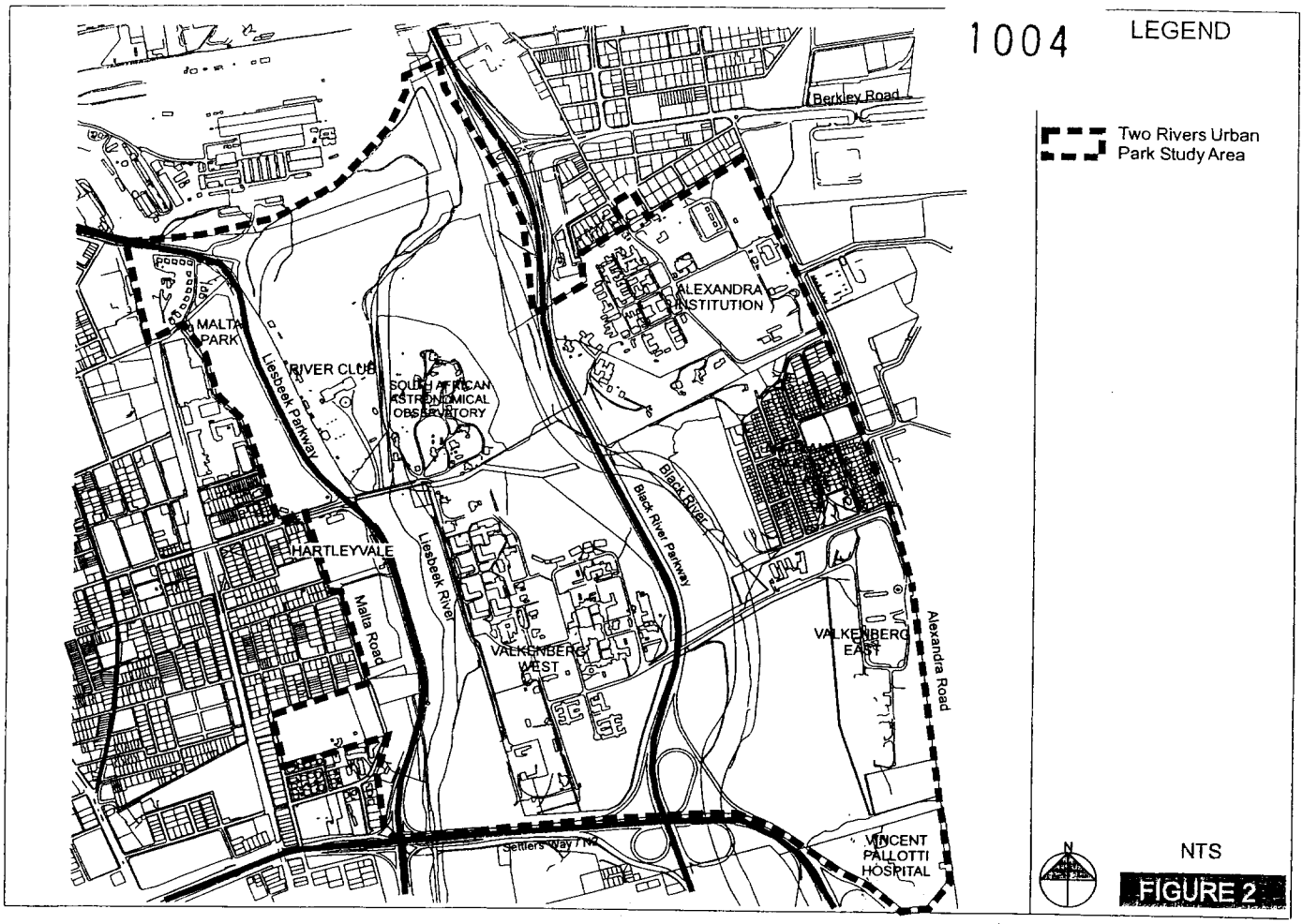
The current document, the Two Rivers Urban Park Contextual Framework and Phase One Environmental Management Plan, serves as a contextual framework for developers andland owners, as well as providing objectives and policies regarding the management of the open space areas, and suggests the beginnings of an institutional framework that can assist in managing the Council-owned areas in the Park.

1.3 VISION

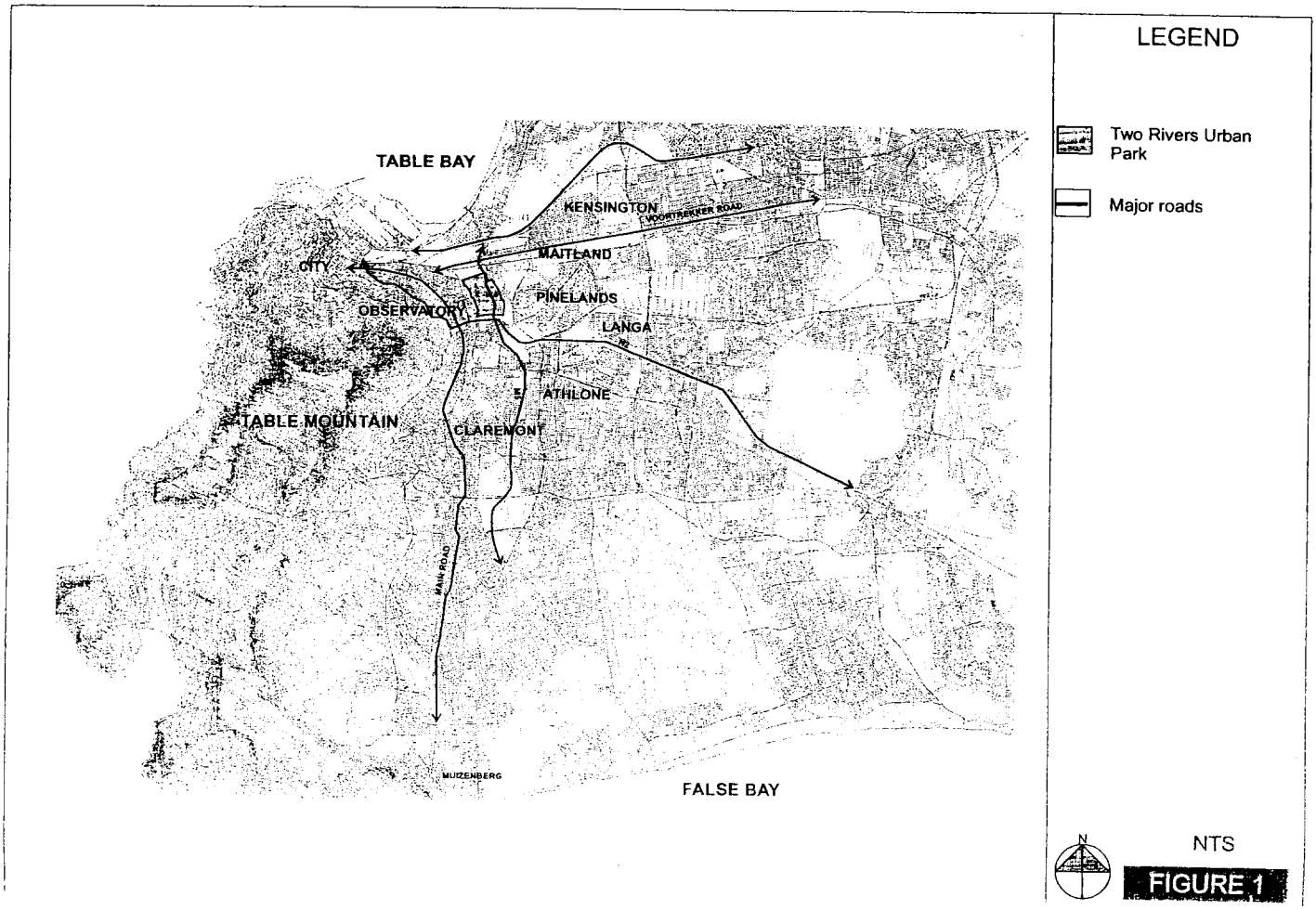
Central to the creation of the Park is the establishment of a vision, which aims to protect the ecological elements and cultural heritage of the site, and maximises the opportunities that all people may gain from this special place.

THE VISION:
To rehabilitate, protect, secure and enhance the intrinsic ecological qualities of the area, to conserve the unique cultural landscape, to encourage environmental education, to maximise opportunities for all people, and to promote sustainable development.

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: STUDY AREA



TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: LOCALITY



SECTION 2: CONTEXTUAL ANALYSIS

2.1 POLICY FRAMEWORK

The Park area is well integrated with the City. It is situated on the edge of the inner city, and is adjacent to dense residential, commercial, industrial and institutional land uses (Figure 3: Context). Vehicular routes and railway lines are in close proximity to the site, while the Black and Liesbeek Rivers flow through the site. The site also forms part of the Coast to Coast Greenway, which links open space areas from False Bay to Table Bay.

The Municipal Spatial Development Framework for the former City of Cape Town strives towards creating a city where the natural environment permeates all aspects of life. A city where every individual has the opportunity to be in touch with nature places and to escape from the stresses of urban life. As environmental degradation, inadequate planning and the demand for land continue to threaten the remaining natural environments, strategic remedial action to protect what is left becomes imperative. In dealing with the natural resourcebase, the Municipal SDF identifies two types of actions, namely conservation and resource management actions, and creative actions. The Two Rivers Urban Park is such a creative action.

The Two Rivers Urban Park is one of a few urban parks that are planned for the City of Cape Town, the others being Wingfield Park, Philippi/Silica Sands and Swartklip Park. The limited extent of possible local authority investment in the Park needs to be seen in the broader metropolitan context. There are people in other parts of the city, especially in the south-east, that are in desperate need of urban parks to enhance their quality of life. Furthermore, these areas have few latent opportunities for park creation and will therefore require substantial public investment and management. In the context of present day concerns for equity and reconstruction, it is appropriate for the City to focus its resources and energies on the creation of parks in these areas. The creation of the Park is thus important to ensure environmental sustainability and to enhance the quality of life of city dwellers. The urgency of beginning to protect and rehabilitate what little is left of the natural environment has brought the Two Rivers Urban Park area to the forefront of the City's attention.

In the international context, the process by which this park has been initiated adheres to Agenda 21's objectives of sustainability. Arising from the Earth Summit (1992) held in Rio de Janeiro, Agenda 21 is the United Nations Global Action Plan for integrating development and environmental issues. Agenda 21 focuses on partnerships involving the public and all relevant stakeholder groups to resolve problems and plan strategically for the future.

Furthermore, the idea of the Urban Park itself follows contemporary trends, which show a central concern for the sustainability of parks. The role of and attitude to parks in South Africa is changing as we begin to realise the shortcomings of existing parks in the city. The changing role and perception of parks need to be understood in order to explain the importance of the approach adopted in the creation of the Park. Parks have always been a part of cities. Often they have merely been green open spaces imposed on the land with little regard for the original landscape or natural systems, and determined according to a programme for urban development. This has tended to result in a case of too many parks, poorly designed, which the city is increasingly unable to afford to maintain.

The need for open spaces that allow and encourage the natural environment to flourish and provides for the relief and relaxation of people in the ways set out by the Constitution are

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: CONTEXT

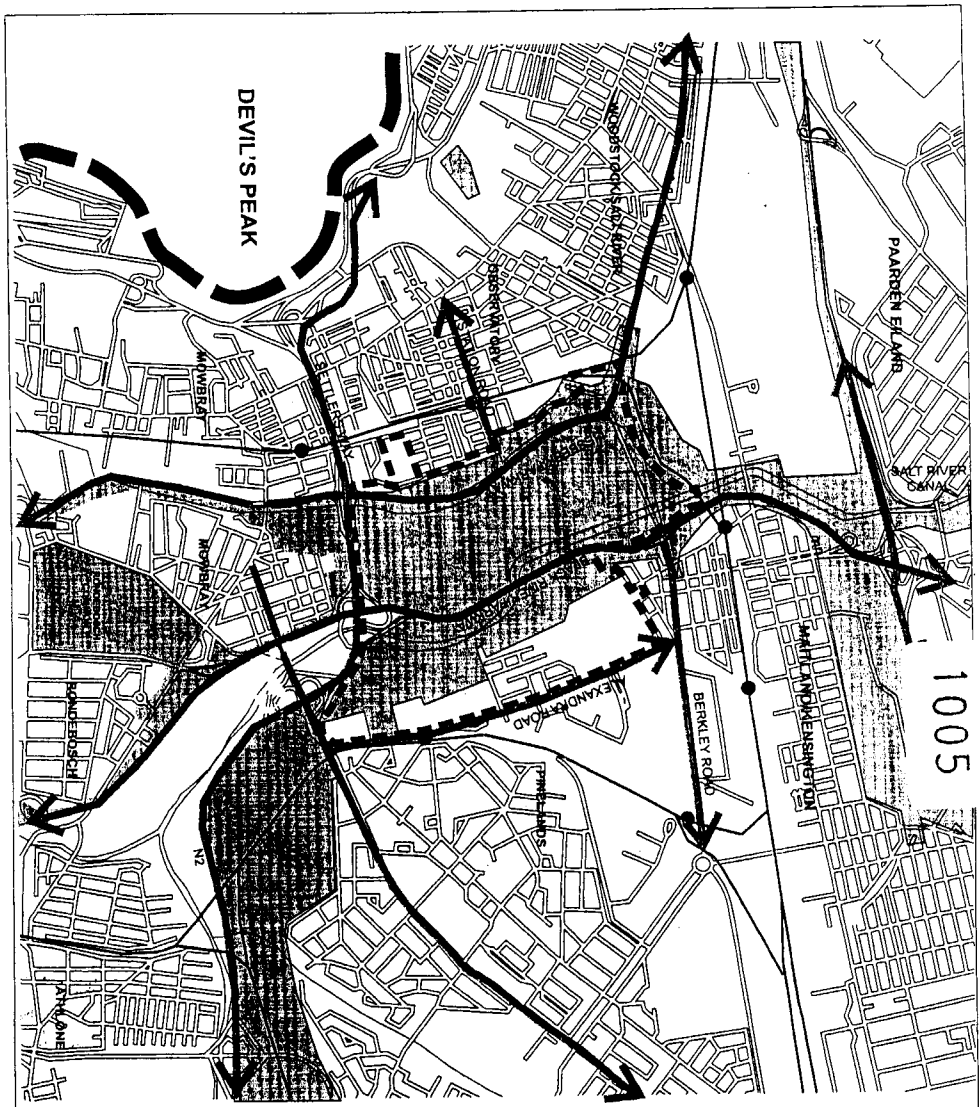


FIGURE 3

essential to the pursuit of an improved quality of life for all people in the city. Furthermore, the spatial realisation of the Park can be seen in a metropolitan context. The city's Metropolitan Spatial Development Framework (MSDF) states that:

In the identification of Metropolitan Open Space System (MOSS) sites, local planning should have regard to the benefits of creating, as far as possible, a connected system of open space. By the linking of open areas in this way to form green chains, the amenity and recreation potential of MOSS is enhanced as is its ecological potential (by the creation of ecological routes). This is especially applicable along waterways, and wetland systems.

In addition to the above policies for the City, the Package of Plans approach to the project had been important and its successive levels are important in the planning process. Spatialplanning is normally undertaken as a series of plans, regional plans to more detailed Precinct, Site Development and eventually building plans. This Package of Plans approach envisages plans at various levels of detail , becoming progressively more detailed from the regional level which deals mainly with policies. The Two Rivers Urban Park Contextual Framework and Phase 1 Environmental Management is at a point where the detailed precinct plans can be prepared by prospective developers.

Furthermore, the Two Rivers Urban Park Spatial Development Framework and Phase 1 Environmental Management Plan is a management tool which would strive towards achieving the vision for the Park within the guiding principles for land development and environmental management as indicated by the Development Facilitation Act and the National Environmental Management Act.

2.2 OPPORTUNITIES AND CONSTRAINTS

As a first step in the formulation of the Contextual Framework and Phase 1 Management Plan, an analysis of the site was undertaken. This section provides a summary of the opportunities and constraints identified in the analysis that have informed the formulation of the Contextual Framework. It is important to note that the opportunities and constraints that have been identified are those that relate specifically to creating a park.

2.2.1 Opportunities

- The Two Rivers Urban Park is a large open space close to the City, which could provide for multiple recreation and other uses.
- The Park has the potential to set an example of compatible mixed use within an environmental/cultural-historical context.
- The Park is highly accessible from a metropolitan perspective, i.e. major public transport routes (rail, taxi and bus) exist adjacent to the site.
- Raapenberg Bird Sanctuary and the Pallotti wetlands provide a high diversity and abundance of suitable habitats for water birds and are presently buffered from disturbance.
- The old Liesbeek River course has the potential to be restored subject to further studies

and it has the potential to be utilsed for a variety of recreational activities as wellas serving the ecological functions of a river and as an important link in the green network of the greater Cape Town. Specialists are to be appointed to provide input into upgrading and rehabilitating a section of the Liesbeek canal downstream of Observatory Road.

- There are panoramic views of Devil's Peak, the rivers and the wetlands.
- Mature groves of trees exist on the site, which contribute to the cultural value of the Park.
- There are a myriad of historic buildings and landscapes as well as important vistas, focal points and archaeological sites, which can provide form and structure to the Park, and character to the area.
- There is a significant amount of underutilised land on the edges of the Park and adjacent to existing buildings within the Park, which could be utilised for appropriate development . Existing land ownership (i.e. publicly or privately owned) is particularly relevant for assessing future development opportunities in the Park (Figure 8: Ownership).
- Many of the buildings in Valkenberg East are not used for the purposes of Valkenberg Hospital and will soon be released for development. Several buildings within Valkenberg West will also be vacated, thus providing development opportunities and upgrading of existing buildings.
- The variety of land uses within the Park would contribute to its envisaged diversity.
- Urban agriculture is currently being practiced within the Park, and possibilities of extending this practice have been and should be further explored eg. next to the Valkenburg Manor House.
- The Cape Town Environmental Centre, which is situated on the western edge of Valkenberg West, serves as a meeting place for NGO's involved with the promotion of environmental concerns and can serve as an important focal point for environmental education in the Park.

2.2.2 Constraints

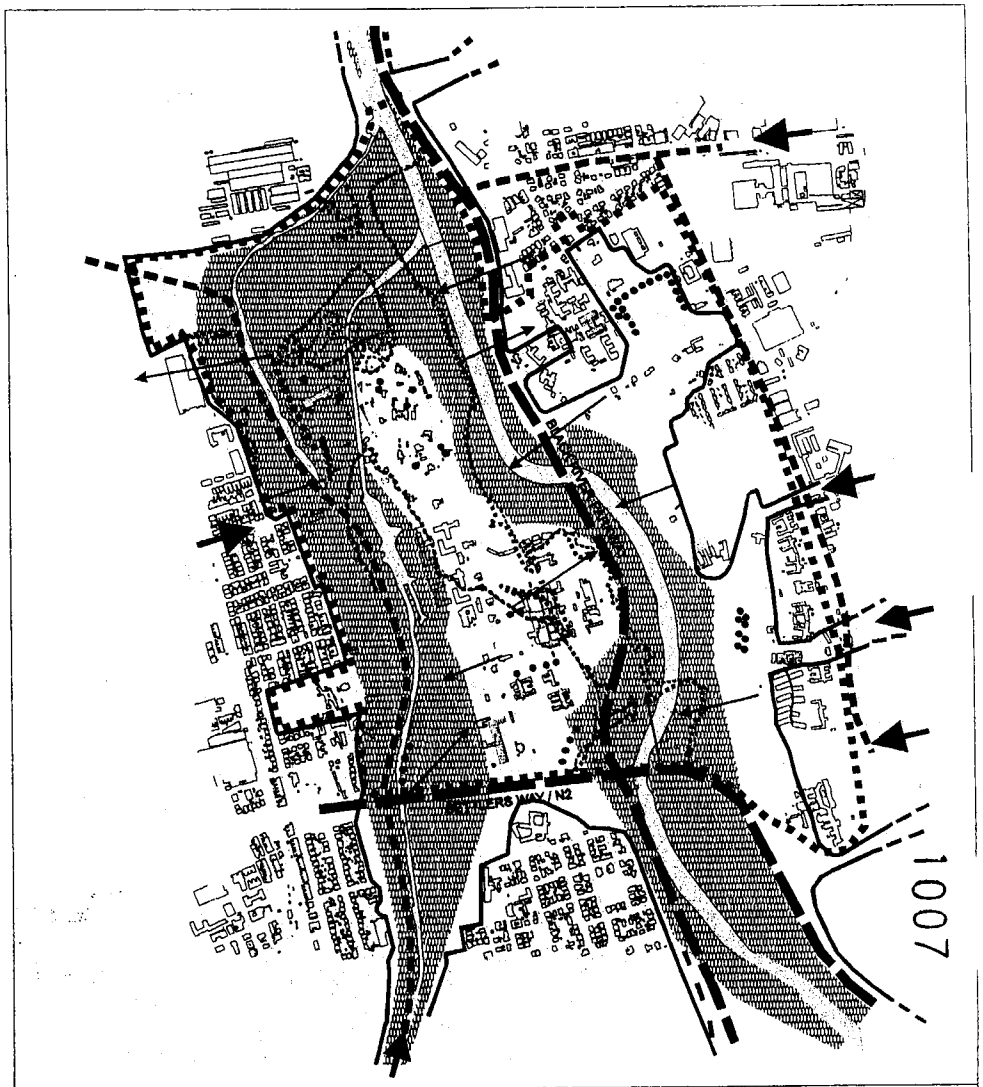
- Although Raapenberg Bird Sanctuary and the Pallotti wetlands provide a high diversity of suitable habitats for waterbirds, the number of birds is declining as a result of the decrease in bird habitats.
- The floral species in the area are largely alien.
- The Liesbeek River has been canalised and cut off from its original course, resulting in the canalised section functioning purely as a conduit for stormwater, and the old water course remaining stagnant for several months of the year.
- The Black River is highly polluted and not suitable for human contact, and the possibility of restoring it to its natural state is remote as the pollutants originate upstream from a variety of diffuse sources that cannot be controlled by the future management of the Park.

- The possible widening of the Black River to accommodate future runoff from the catchment would negatively impact on the Raapenberg wetlands.
- The wetlands and rivers, as an amenity, are presently inaccessible to the general public as a passive recreational amenity or resource.
- Many of the open space areas are underutilised, not well maintained and poorly defined.
- There are limited recreational facilities.
- There is a lack of identity and defined function, given that the site has not been planned as a whole in the past.
- Many of the historical buildings are in a state of disrepair.
- Land uses and historical buildings within the Park are separated by visually impermeable walls.
- There is little surveillance on a portion of the site, thus threatening the safety of people in this area.
- Future development could have a negative impact on the natural environment if not managed effectively.
- The site is separated by the Black River Parkway and is only connected via two bridges, one providing limited vehicular and pedestrian access, and the other providing pedestrian access. These bridges are in a state of disrepair.
- Existing access into the Park is limited to one pointalong Liesbeek Parkway and one point along Alexandra Road. The opportunity to provide access to the Park for significant vehicle volumes via the existing Liesbeek Parkway/Station Road intersection is very limited. Local accessibility is therefore constrained.
- Little provision has been made for cyclists and pedestrians along Liesbeek Parkway and for cyclists along Alexandra Road.
- There is no additional funding within the Municipality.
- The full potential of the Park as an environmental education and research centre has not yet been realised.
- Development would be restricted within and between the 1:50 and 1:100 year flood lines in terms of the Salt River Catchment Floodline Study (2003). These will be applied in the assessment of new developments together with the Development Control Guidelines for Floodprone Areas titled "Policy and Practice for the Management of Development Near Watercourses, Wetlands and Vleis Catchment Stormwater and River Management Branch (Draft 6, July 2003"
- The future role of the Valkenberg Hospital is uncertain.

2.3 STRUCTURING ELEMENTS

Structuring elements are those distinct features in the landscape that give shape to the Park (Figure 4: Structuring Elements). These elements inform and order the ideas for the Park and become a framework for the detailed planning and design of the Park.

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN:
STRUCTURING ELEMENTS



Client :

CITY OF CAPE TOWN
CMC ADMINISTRATION

CATCHMENT MANAGEMENT

Consultants :

NINHAM SHAND
CONSULTING ENGINEERS

CAPE TOWN

Project :

(EXTRACT FROM)
SALT RIVER
HYDROLOGICAL STUDY

PHASE 2

SALT RIVER
FLOOD LINES
AND DANGER LINES

TABLE OF FLOOD LEVELS

	1 : 50 Year Flood Data		1 : 100 Year Flood Data	
Section Number	Peak Flow Rate (m³/s)	Flood Level (m)	Peak Flow Rate (m³/s)	Flood Level (m)
18.1	155	4.82	214	5.34
16.1	155	4.77	214	5.27
15	155	4.71	214	5.21
13.2	155	4.59	214	5.01
13.1	155	4.56	214	4.97
13	155	4.55	214	4.96
12	210	4.55	256	4.95
11	210	4.53	256	4.94
10	210	4.49	256	4.91
9	210	4.45	256	4.88
8.1	210	4.39	256	4.83
8	210	4.32	255	4.71
7	210	4.16	255	4.47
6.1	210	4.03	255	4.30
6.08	210	3.85	255	4.12

Path :

I:/hydro/8453/phase2/arcview/projects/sheet 3of4.apr

PROJECT ENGINEER DATE

PROJECT DIRECTOR DATE

DESIGNED :	DESIGN CHECKED :
DRAWN :	DRAWING CHECKED :

Scale :

70 0 70 140 Meters

1 : 2 500

Client :

CITY OF CAPE TOWN
CMC ADMINISTRATION

CATCHMENT MANAGEMENT

Consultants :

NINHAM SHAND
CONSULTING ENGINEERS

CAPE TOWN

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Project :

(EXTRACT FROM)
SALT RIVER
HYDROLOGICAL STUDY

PHASE 2

SALT RIVER
FLOOD LINES
AND DANGER LINES

Drawing No. : Sheet :

LEGEND

- 100 YEAR FLOOD LINE
- 50 YEAR FLOOD LINE
- DANGER LINE (refer to main study - Catchment Management)
- CROSS-SECTIONS
- CONTOURS
- CADASTRAL BOUNDARIES

NOTES :

1. THE POSITIONS OF THE FLOOD LINES ON THIS DRAWING ARE APPROXIMATE. IF THE POSITIONS ARE TO BE FIXED ON THE GROUND, THE FLOOD LEVELS LISTED IN THE TABLE ON THIS DRAWING SHOULD BE USED.
2. LEVELS BASED ON MSL DATUM.
3. THIS DRAWING FORMS PART OF NINHAM SHAND REPORT No. 3273 / 8453, DATED MARCH 2002
4. THE FLOOD LEVELS SHOWN ON THIS DRAWING HAVE BEEN DETERMINED ASSUMING THAT THE FLOOD PEAK IS COINCIDENT WITH A MEAN HIGH WATER SPRING TIDE (0.86m) AND A STORM SURGE (0.3m) IN TABLE BAY. FLOOD LEVELS FOR ALTERNATIVE TIDAL LEVELS ARE GIVEN IN NS REPORT No. 3273 / 8453, DATED MARCH 2002.

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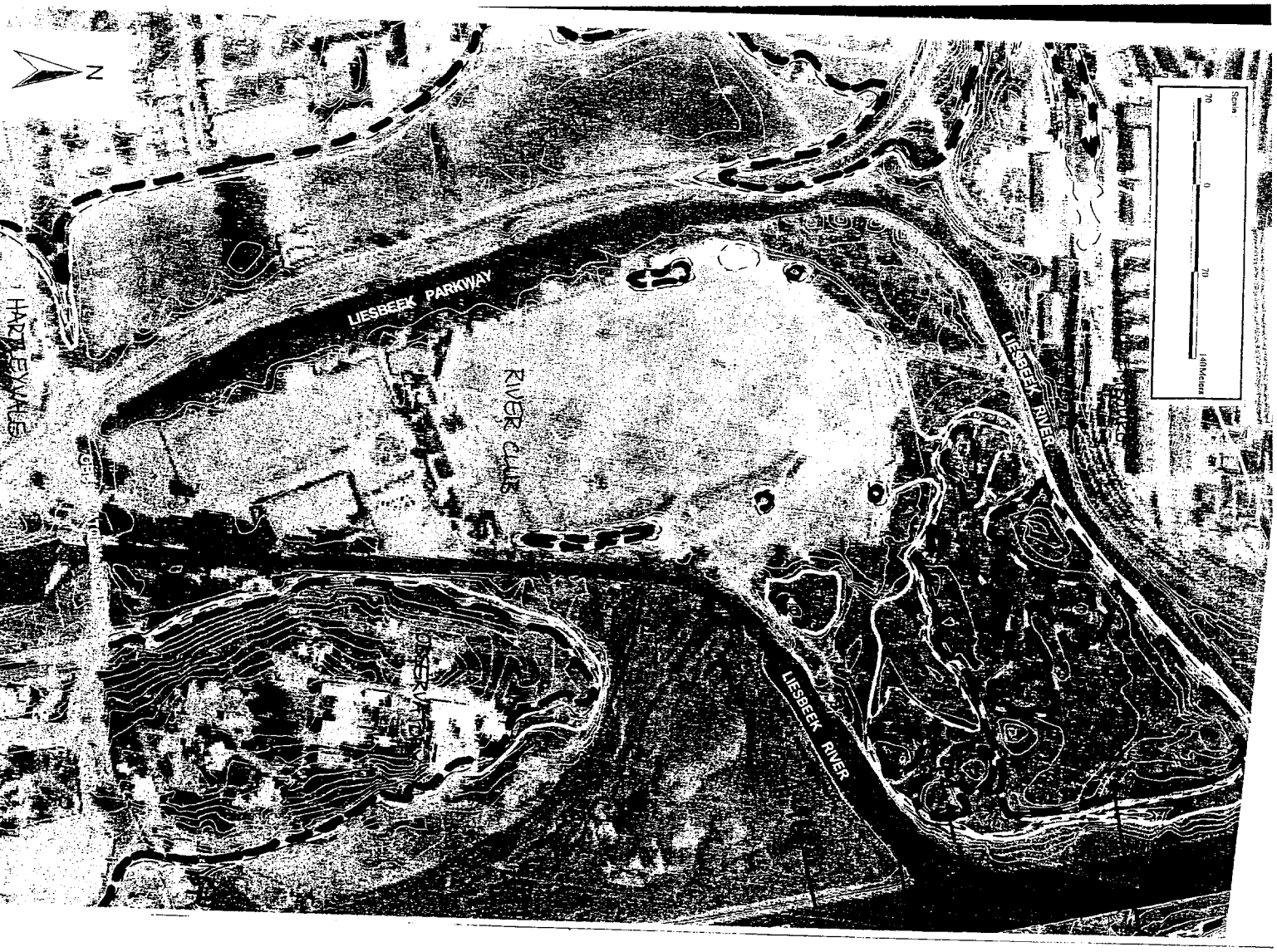
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LIESBEEK PARKWAY
RIVER CLUB
LIESBEEK RIVER
LIESBEEK RIVER
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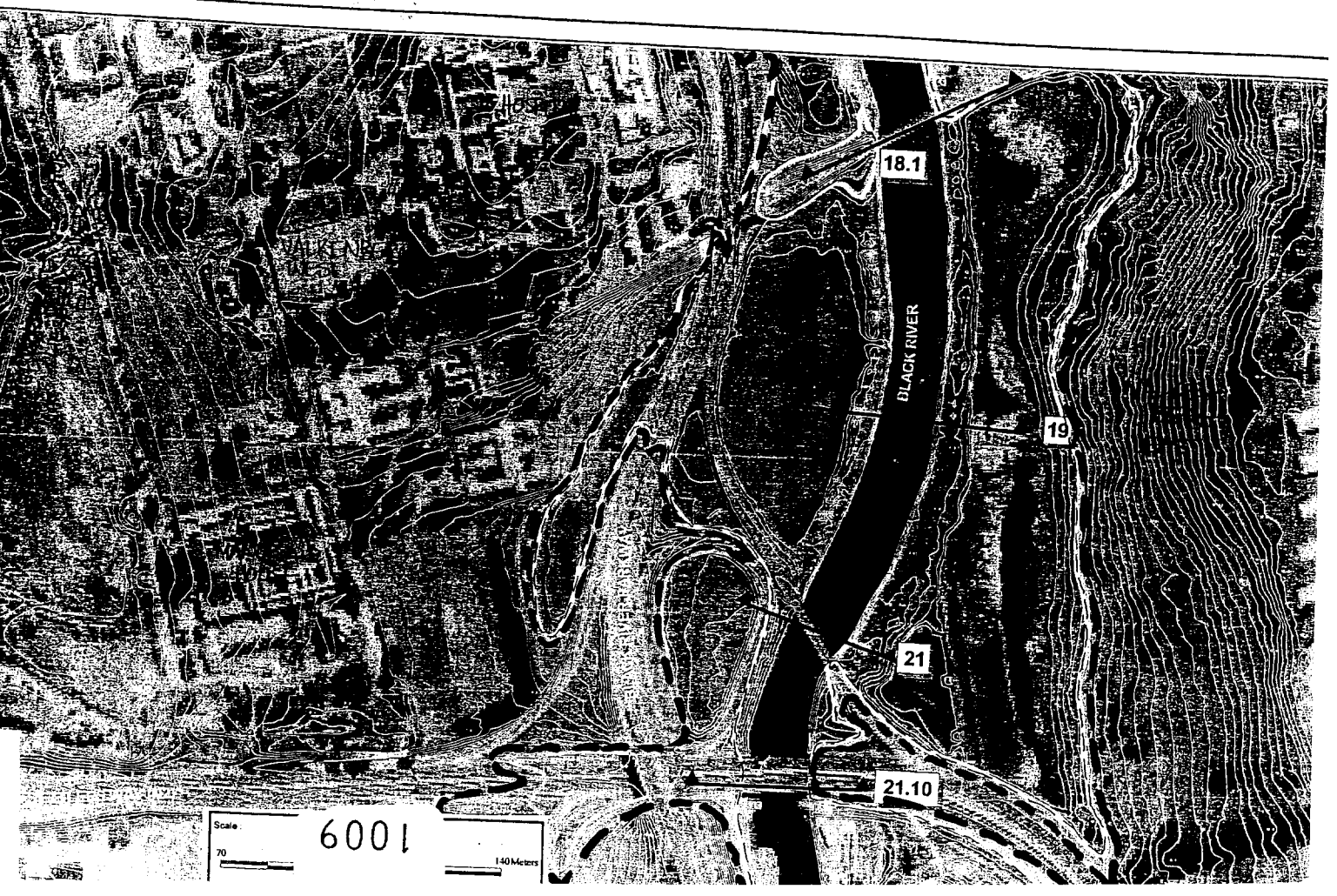
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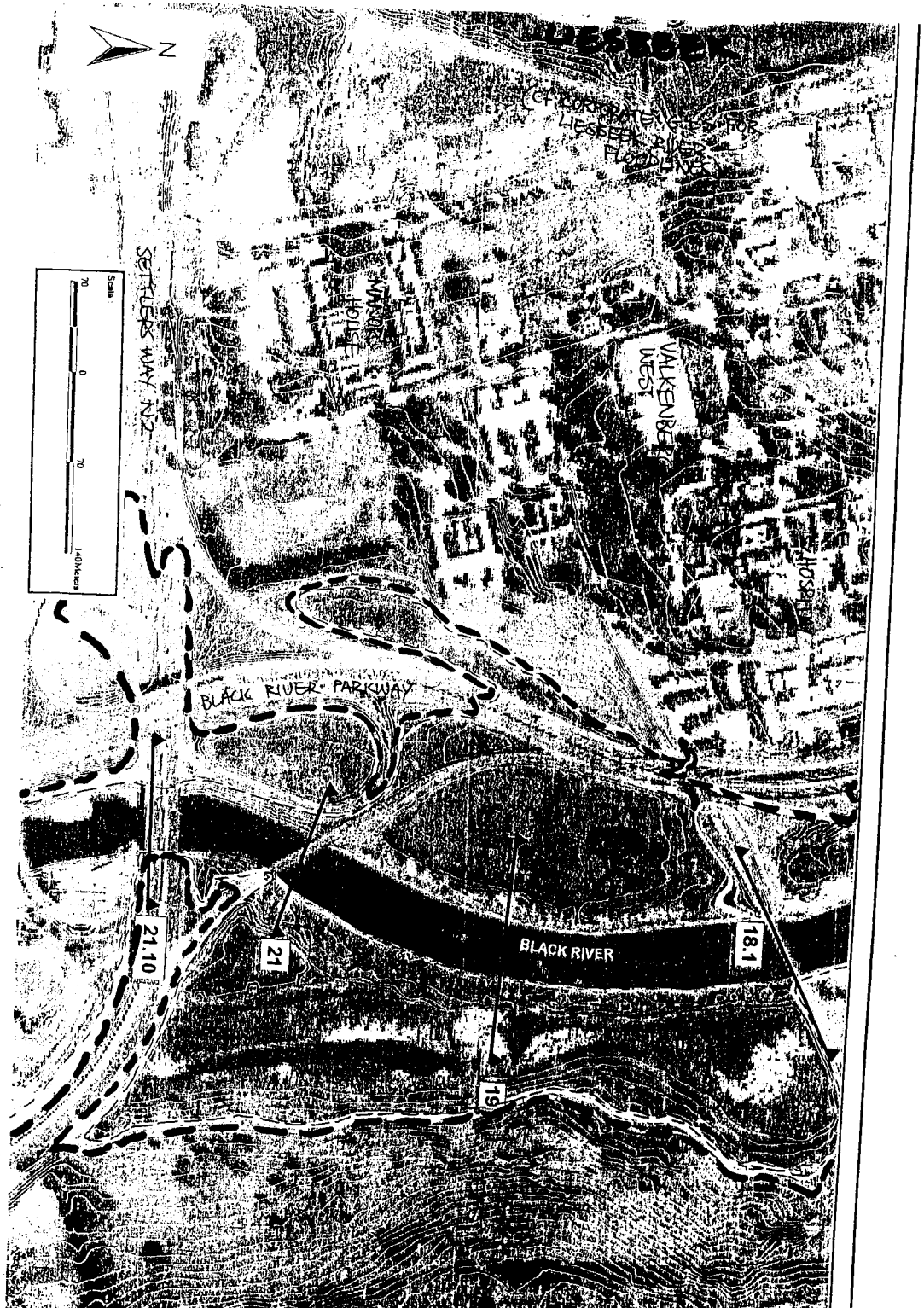
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VALKENBERG WEST
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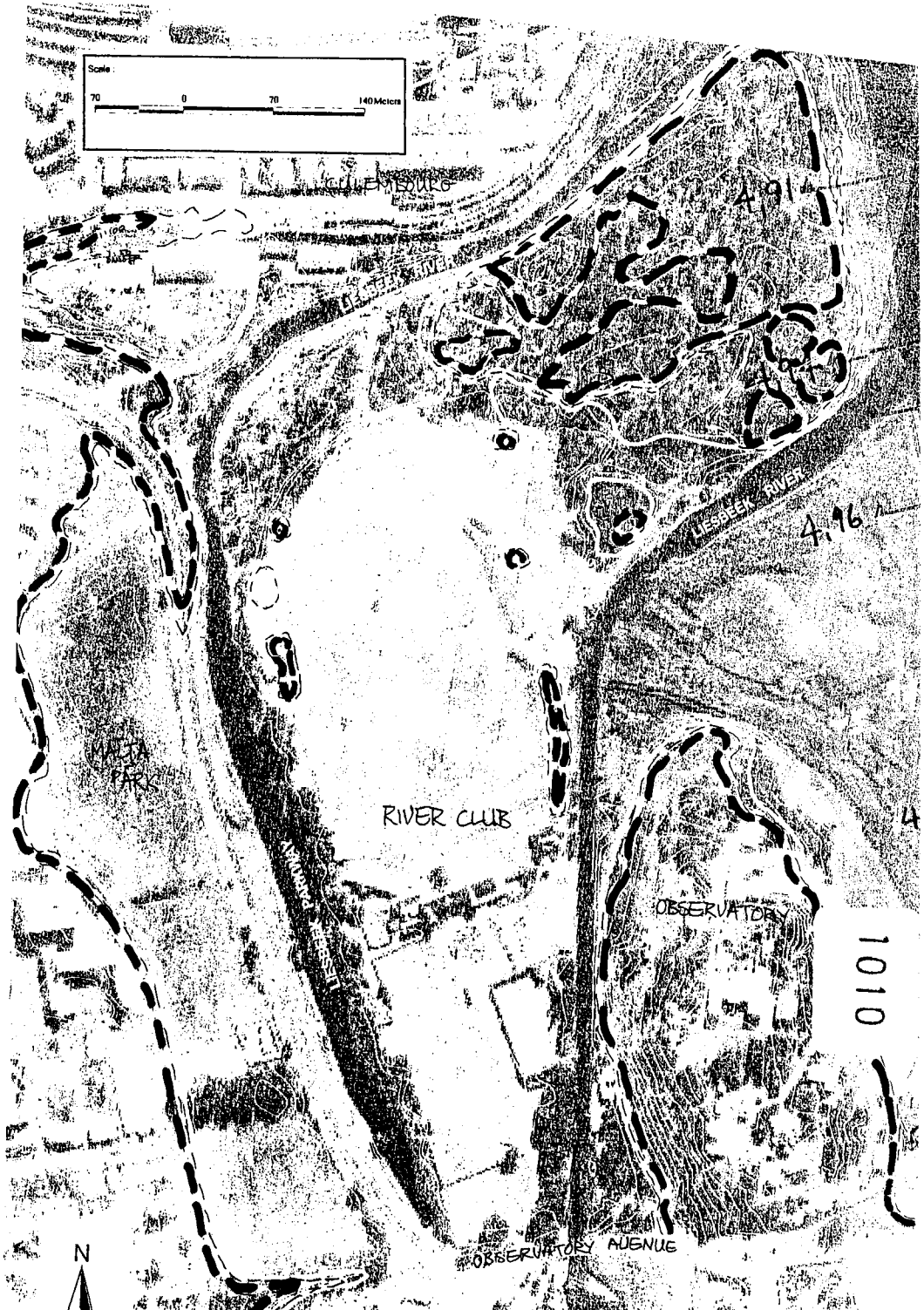
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140 Meters
4.91
4.16
LIESBEEK RIVER
MALTA PARK
RIVER CLUB
OBSERVATORY
OBSERVATORY AVENUE
1010
N

There are several existing and proposed features in the park landscape, which act as structuring elements:

- Edges of the Park.
- Significant natural features.
- Access points into the Park and within the Park.
- Buildings and landscapes of heritage significance.
- Views and vistas.

Below, each element is introduced with an underlying principle that guides the approach taken to incorporate the element into the structure of the Park.

2.3.1 Edges of the Park

One of the most important concerns in establishing a park is that it is a defined area that people are able to recognise as a recreational space. A definite edge to the park, as well as clear entrances or gateways, are essential elements required to encourage recognition of this space as an urban park where all people are welcome to visit and to participate in diverse activities.

For the Park to function, the edges between the natural and the built environment need to be secured from the outset, particularly since land in the Park is owned by numerous landowners and may be subject to speculative development. Therefore, the edges of the Park must be clearly defined so as to enhance legibility, surveillance, spatial definition and clarity, and to ensure that they are defensible.

2.3.2 Access Points into the Park and Movement within the Park

The objective is to control and manage movement through the Park by creating defined points and routes, which are appropriate to vehicular or pedestrian movement respectively. The Park and what it offers should be open to everyone, although it is recognised that access to some places and facilities will have to be controlled for conservation and security reasons. As a general principle, frequency and ease of access will depend on the sensitivity of specific areas.

Vehicular Access
The objective is to provide safe, equitable access to the Park, while at the same time limiting vehicular movement within the Park. This has been achieved by providing several evenly distributed 'park and walk' areas on the perimeter of the Park at points of greatest access.

These 'park and walk' access points are primarily determined by existing roads and entrances into the Park. They intend to function as attractive entrances for mainly recreational users, as well as enabling the control or management of access to the Park. These should ideally take the form of paved or gravel surfaces planted with trees that provide shade. They should also play host to information boards about the Park. Direct access is taken at several points along Alexandra Road and at one point along Liesbeek Parkway. The 'park and walks' are located at existing access points along these roads.

The objective of limiting vehicular movement will not be achieved if prospective developers are permitted to provide large amounts of parking within their developments. Guidelines on the provision of parking facilities for developments (numbers and location relative to the developments) should be drawn up and should form part of all precinct planning . Developers should therefore develop alternatives for parking when submitting development proposals. This will be one of the important determinants for development.

Pedestrian Access
The objective is to manage pedestrian movement through the Park by means of a system of clearly defined, safe access points, evenly distributed throughout the Park, for both recreation and movement purposes. Paths in public areas will provide unrestricted access, whereas paths on private property will be controlled. People are therefore able to experience a variety of walks through the Park as well as being able to move through the Park to outside destinations. A circular pedestrian walkway through the Park should be considered.

2.3.3 Significant Natural Elements

The natural elements together define the form and extent of the Parkland, the variety ofuses, intensity of activities, and constraints to development (Figure5: Natural Elements). The natural structuring elements comprise:

- The Black and Liesbeek Rivers and associated wetlands, i.e. Raapenberg, Pallotti and Valkenberg wetlands.
- The 1 in 50-year and 1 in 100-year floodplains (Accurate information could not due to the unavailability of this information. Detailed information can be obtained from the Catchment Management Branch in future and guidelines drawn up by the branch should be consulted in all development applications.)
- The topography of the landscape, in essence the river valleys and middle ridges which spatially divide the Park.
- Trees which act as structuring elements in the landscape.

2.3.4 Buildings and Landscapes of Cultural Significance

A baseline heritage study was undertaken in order to provide guidance for the nature and sc... future development (see Annexure 1). Five heritage areas have been identified in which Heritage Impact Assessments (HIA) may be carried out in terms ofthe National Heritage Resources Act 25 of 1999. The latter lists certain criteria, which outline when a HIA is required. The heritage areas include references and focal points, many of which are considered conservation worthy (Figure 6: Significant Heritage Resources). These resources assist in identifying the built form and landscapes to be retained, and should inform and give order to the urban form, scale and character of future development.

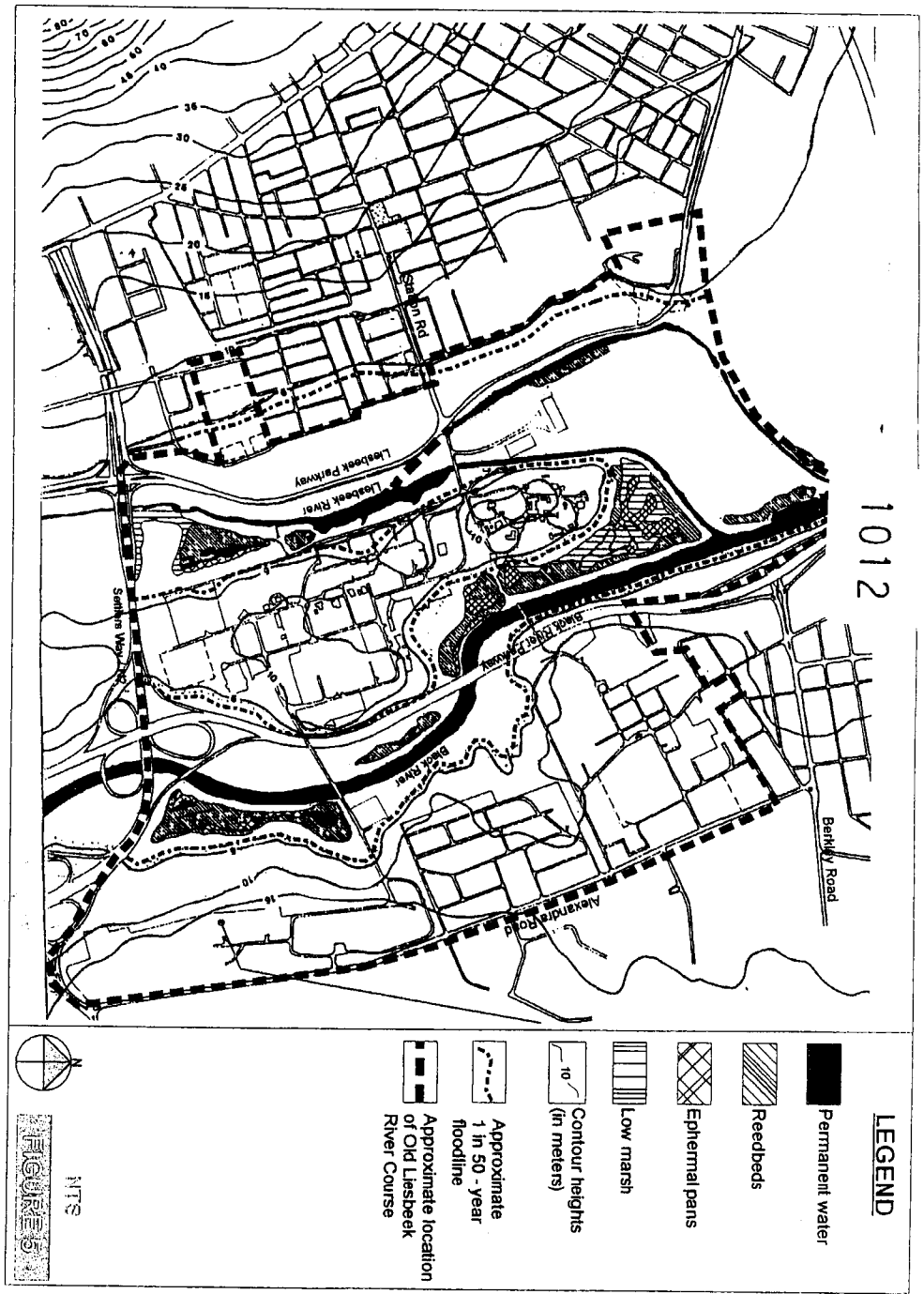
These include both the historic buildings and their relationship to the landscape in terms of axial vistas, trees, topography and visual prominence, which in their entirety should be retained and enhanced as far as possible. They are as follows:

- The Valkenberg Manor House (reception area to Courtyard Hotel), Wild Fig Tree, the Werf, Graveyard, the visual relationship between the Valkenberg Manor House, the Liesbeek River, adjacent wetland and mountain beyond, views of Valkenberg Manor House, and the sense of place created by the courtyard.
- The main Valkenberg Hospital building, the central forecourt, projecting wings, the surrounding associated buildings and private network of spaces.
- The Nieuwe Molen (Alexandra Mill).
- The Observatory and surrounding historical buildings within their landscape context, and the visual link between the Liesbeek River and Observatory Hill.
- The Oude Molen complex and its surrounding landscape, and the visual corridor from Oude Molen down to the Black River.
- Administration Block of the Alexandra Institution and large open space in front of it, as well as the adjacent buildings and spaces in between.
- The main building of the River Club, and the visual corridor and axial approach from the entrance of the River Club to the building.
- The historic building which houses the Chinese School/Association.
- Interrelated courtyard spaces and typology of the Valkenberg East buildings.
- Maitland Garden Village.

It should be noted that these may not be the only Heritage Resources within the study area. The heritage authority may therefore request further investigation where it may be necessary eg. there may still be foundations of other mills in the area as the Oude Molen and Nieuwe Molen were not the only mills in the vicinity. Other archaeological sites may also be evident.

2.3.5 Views and Vistas

There are a series of views and vistas from various focal points within the Park. There are also a series of views and vistas of the Park from the surrounding road network. These are important elements of the landscape and must be retained.



SECTION 3: CONTEXTUAL FRAMEWORK

3.1 PURPOSE OF THE CONTEXTUAL FRAMEWORK

The Contextual Framework aims to develop a holistic and inclusive concept of an urban park that is both mindful of the needs of the City's people and is respectful of universal environmental concerns. It is also envisaged as an important tool to give direction and to coordinate the various activities of landowners and users within and on the edge of the Park. Given the many landowners and users within the Park at present, it is important that this Contextual Framework gives clear indication to private development interests that there are clear expectations with regard to how, where and what kind of development can take place in the Park.

Furthermore, it is the intention of the Contextual Framework to take a long-term view of objectives. Many of the ideas proposed here outline long-term intentions that will need extensive detailed investigation, particularly with regard to the accurate location of the flood lines and how development is to take place within the floodplain. In any event the City's decision-makers will have a basis from which to consider future development proposals, and these decisions will continue to build on the urban park concept. Currently land use is being regulated by the existing zoning scheme regulations (Figure 7: Zoning).

This section explores the individual precincts outside the Council-owned areas and provides guidance as to the suitable land uses, envisaged objective and urban design guidelines for each precinct (Figure 9: Precincts Plan).

A number of fundamental principles provide the basis of approach to the Contextual Framewor

- In terms of use and activity, the conservation, maintenance and enhancement of th natural and cultural elements should dominate.
- The best intrinsic qualities of the landscape should be reserved as natural areas, and the rest as attractive built environments.
- There needs to be a balance between the natural and built environment, as well as a balance between the land uses and intensity of activity.
- A conceptual framework for the Park should offer a range of experiences, which accommodate other uses too, with the physical environment determining which other uses are appropriate and sustainable.
- The edge between built and natural environment needs to be clearly visible.
- An appreciation of the Park should go beyond the immediate environment. The orientation of activities and buildings should secure mountain vistas and significant cultural landmarks as focal points.
- Being envisaged as a multi-purpose urban park, its functions are foreseen to be conservation, recreation, production, and attracting high yielding/public uses to their edges because of the high amenity value of land in a controlled manner.

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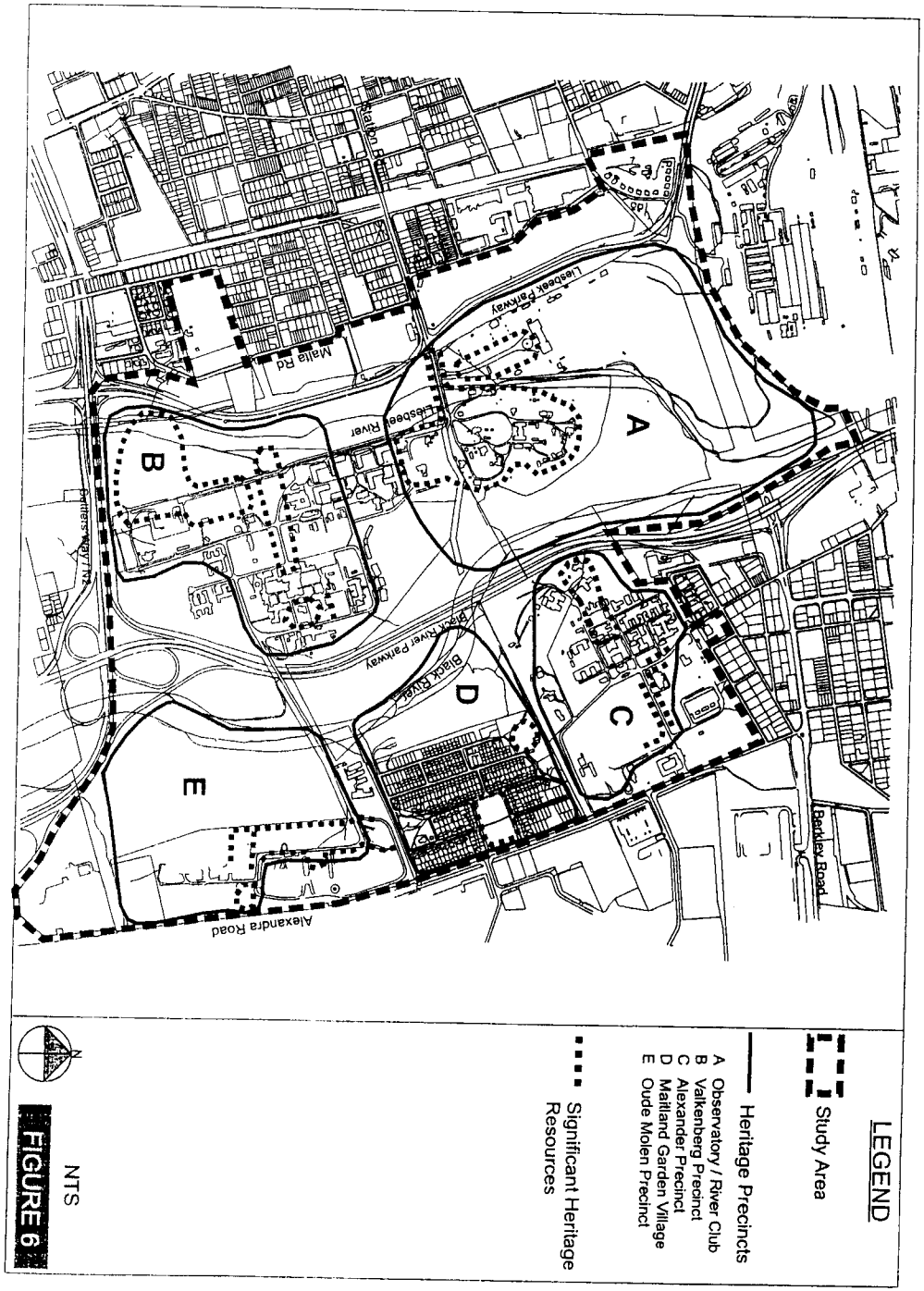
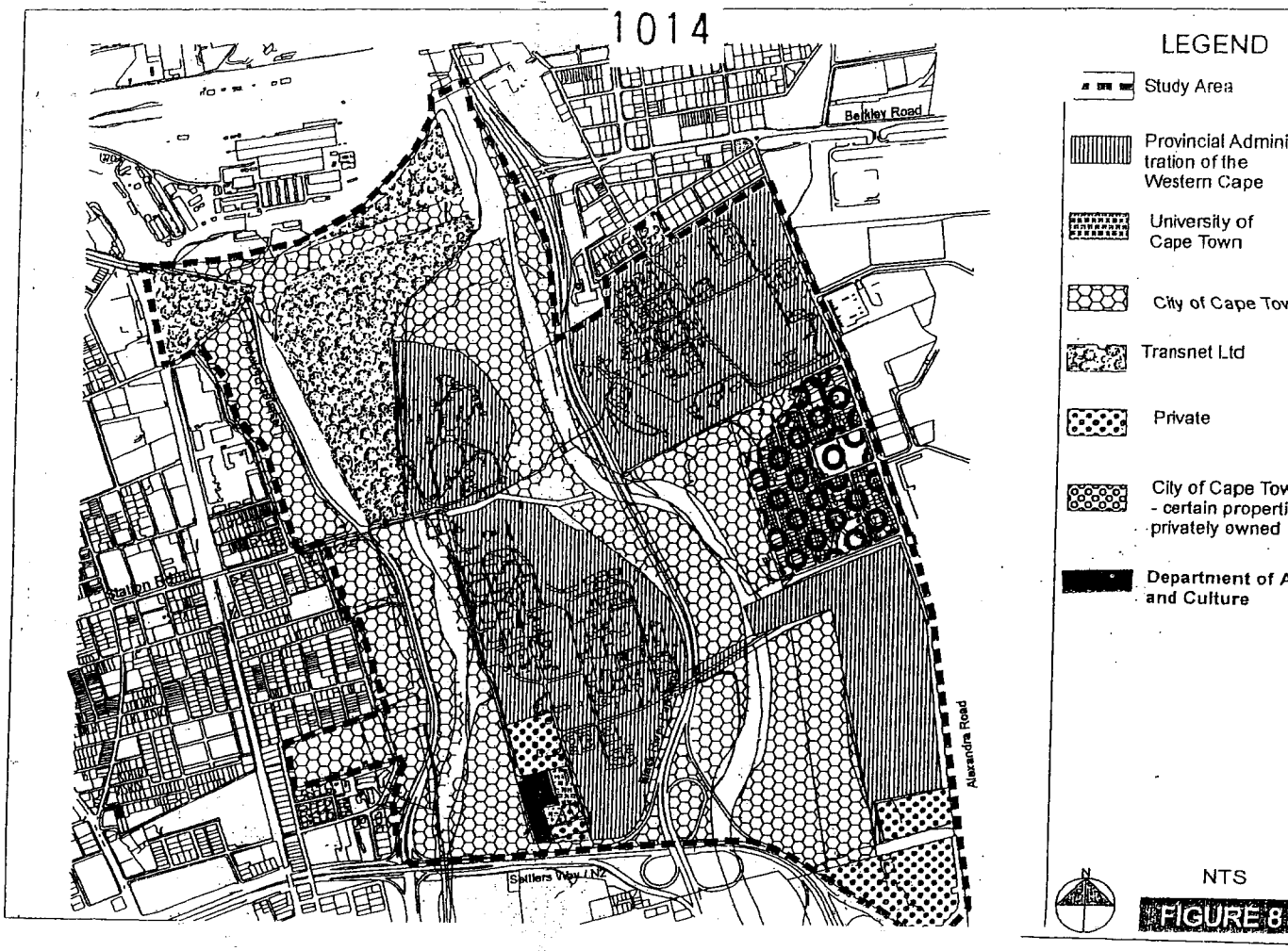
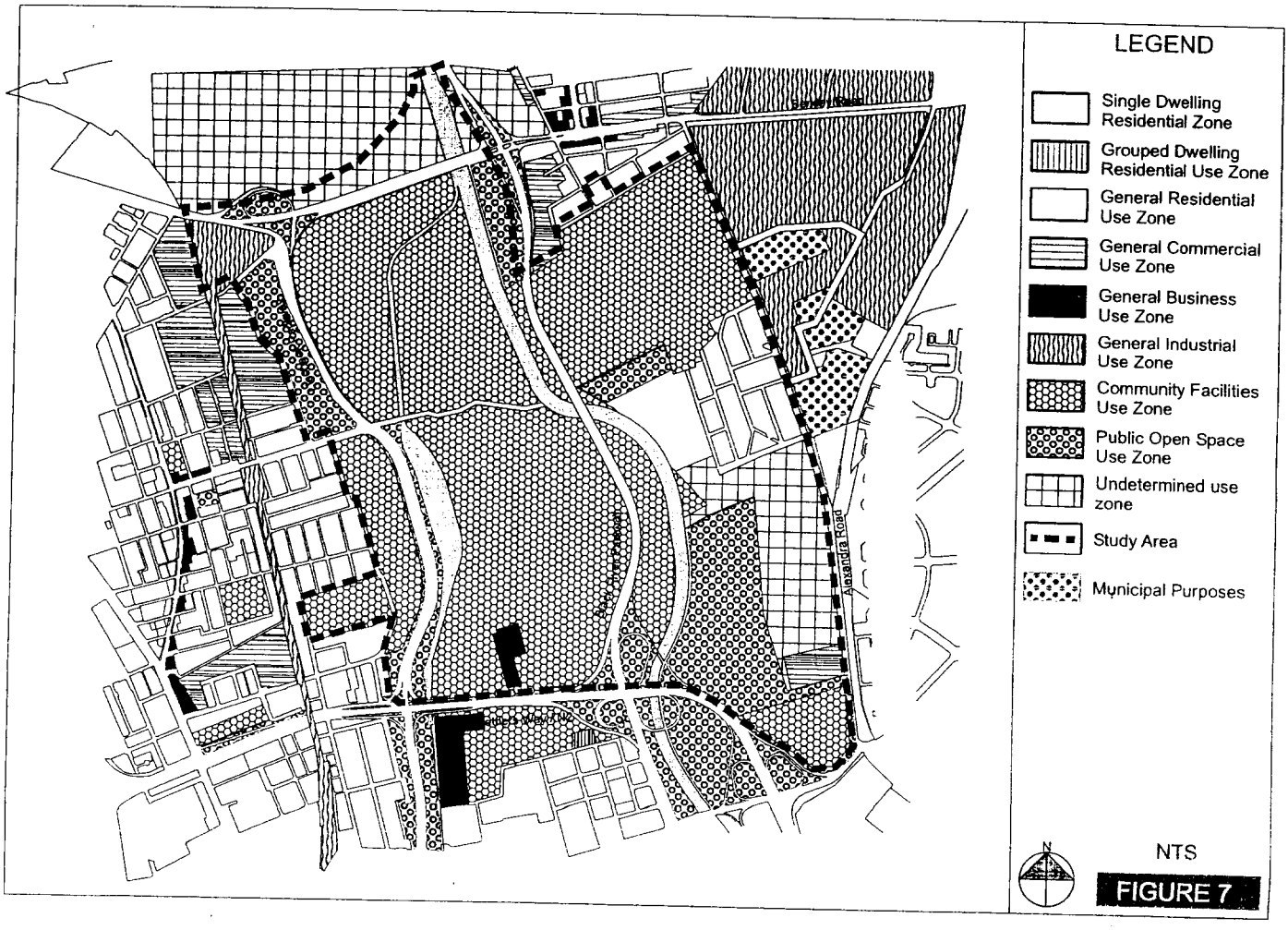
TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN:
SIGNIFICANT HERITAGE RESOURCES



TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: OWNERSHIP



TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: ZONING



3.2 PROPOSED LAND USES AND ACTIVITIES

Where development is to be allowed, the Contextual Framework envisages relatively dense mixed-use urban development that creates a pedestrian world of many opportunities not unlike that of Observatory, with a defined edge to the Park (Figure 10: Existing Land Use). The physical accommodation of existing and additional uses is needed to meet the needs of landowners, and has an important role to play in making the Park financially viable. Several of the significant buildings in the Park's landscape are public institutions. These institutions, which both respect the environment in which they are situated and draw from its special qualities, are important. They have an important contribution to make in securing the edge and enclosing this public space.

Residential and institutional uses have been proposed inside the Park (Valkenberg West– within the defined edges), as the nature of these land uses is compatible with the uses and activities of an urban park and provides much needed surveillance. Furthermore, the historic buildings and landscapes can be re-used for residential and institutional purposes. Supporting commercial uses are permitted to provide valuable services to the residents and institutions.

Mixed use has been proposed along the edges of the Park or at the entrance to the Park. This would ensure the retention of the park-like atmosphere, whilst acknowledging the need for a mixture of land uses in order to render the Park financially viable. It comprises various precincts, all of which have different characteristics.

Additional development within the Park is essential in order to ensure its future sustainability. However, it is acknowledged that a balance between development and parkland must be achieved so that additional development does not compromise the integrity of the Park. Some parts of the Park should be devoid of buildings or structures, while other areas may have a concentration of buildings. Buildings should not dominate the landscape anywhere within the Park, but should be used and orientated in order to provide informal surveillance over the Park day and night.

This is facilitated in the Contextual Framework by:

- Only proposing development on land that is underutilised, has little environmental value or that will assist in giving form and clarity to the Park.
- Limiting the majority of development to the edges of the Park.
- Consolidating development within the Park to a limited area with clearly defined edges.

As mentioned previously, one of the primary aims regarding buildings within the Park is to consolidate these into a clearly defined area that will assist in giving form and order to the adjacent parkland. There are several buildings on site that are not historically or contextually significant, which are located outside the proposed building footprint, or do not contribute positively to the urban form or adjacent parkland. It is considered that, in time, these buildings could be modified or demolished.

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TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN:
PRECINCTS PLAN

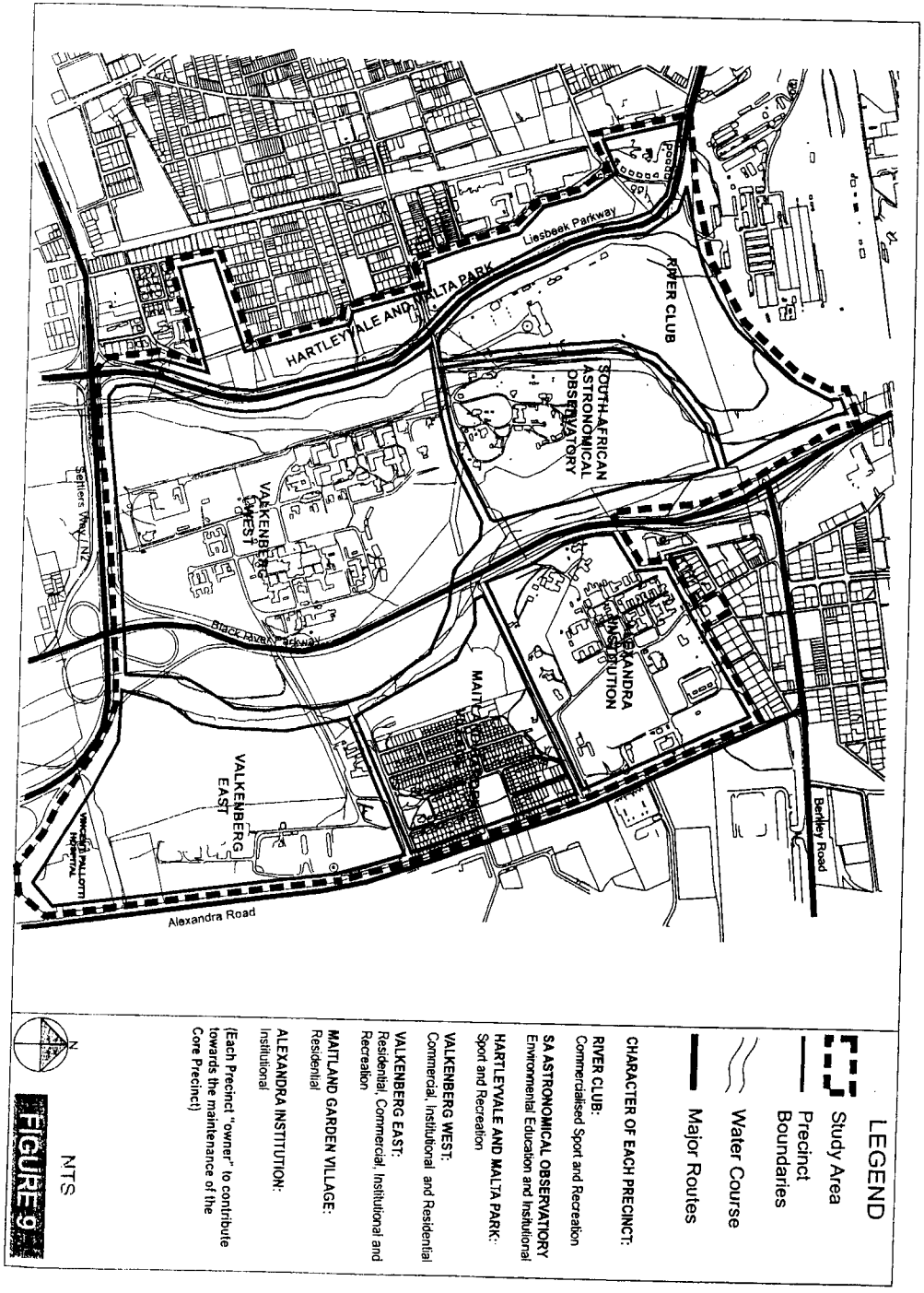
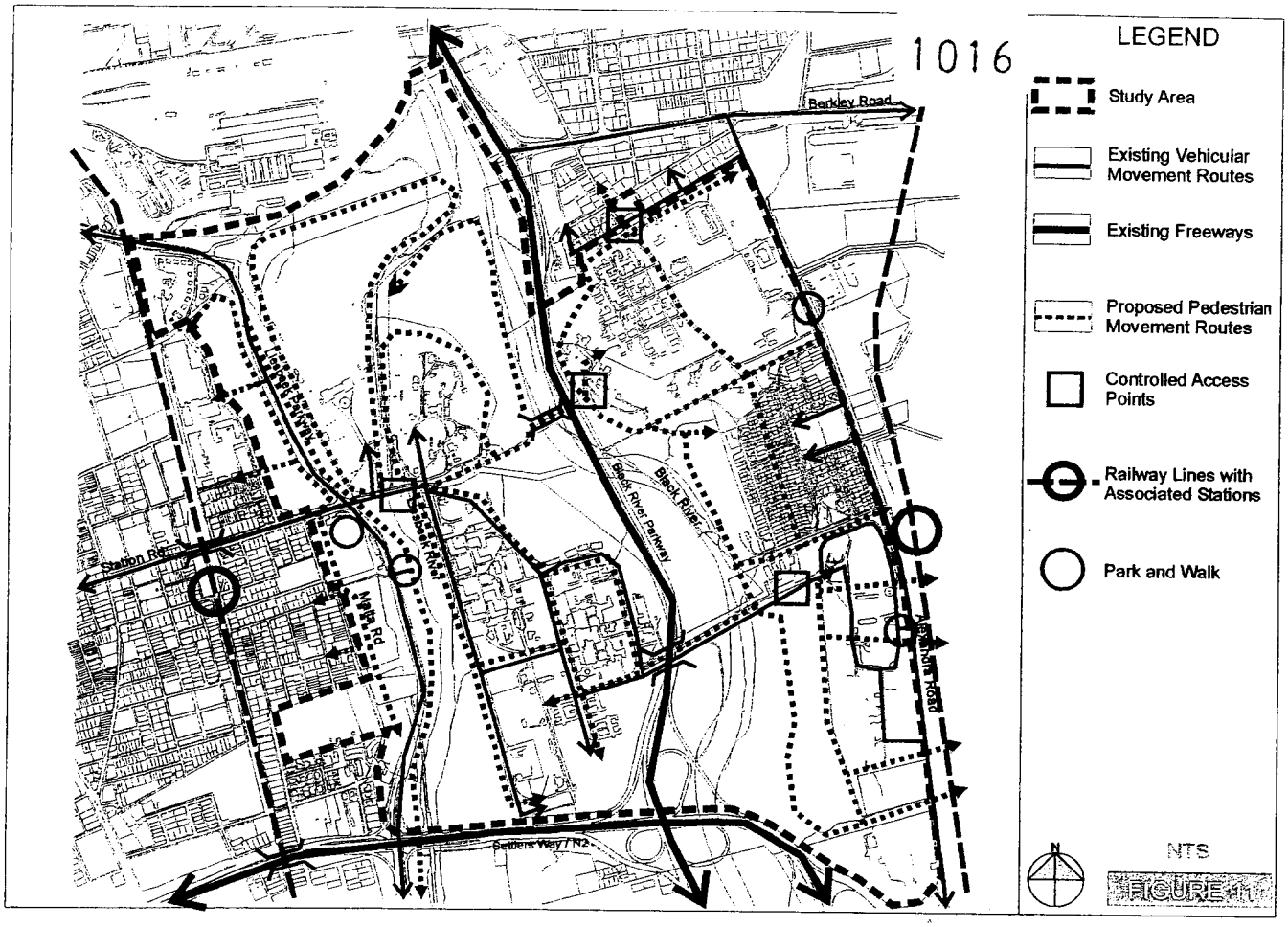
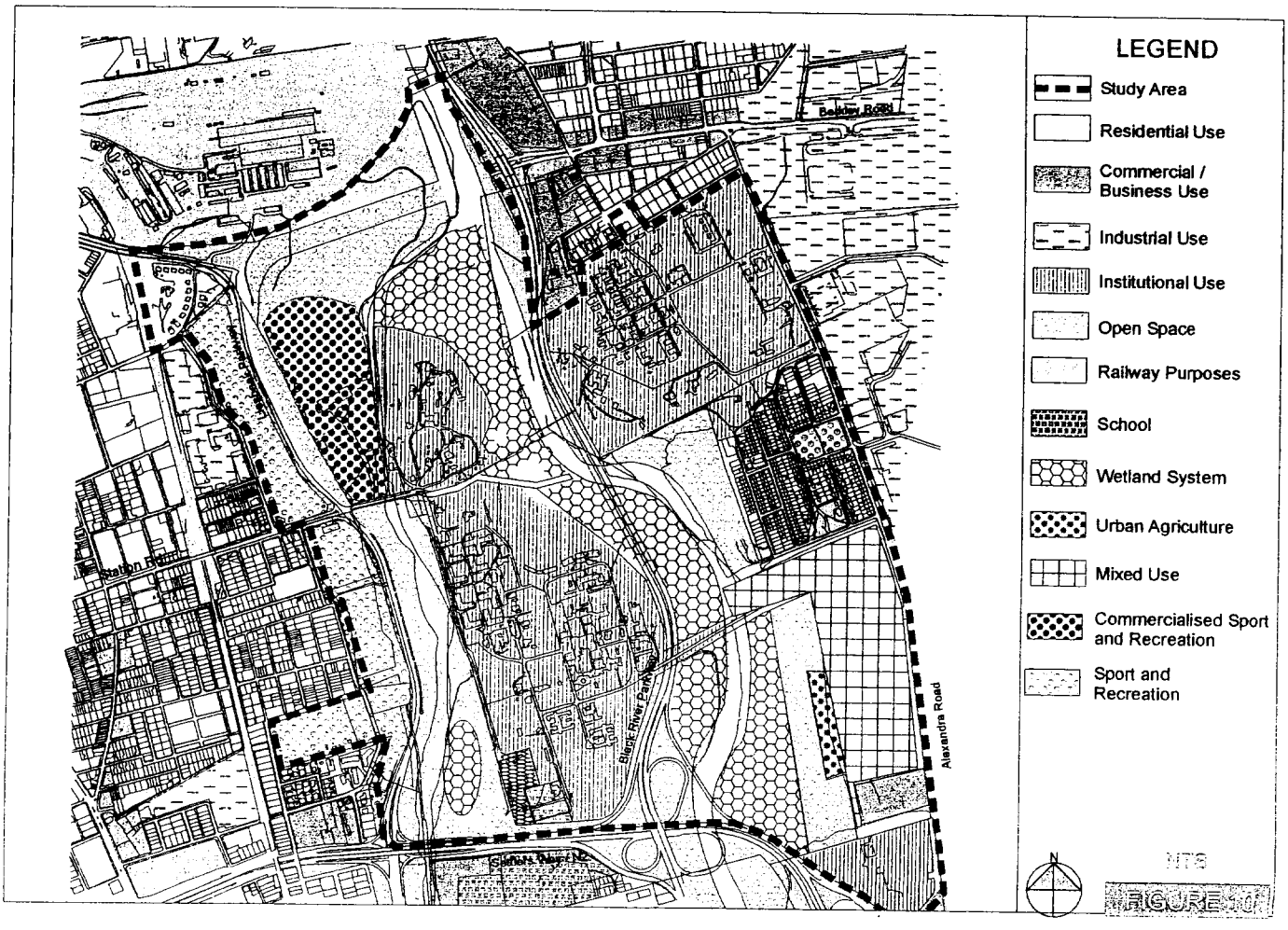


FIGURE 9

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: PROPOSED VEHICULAR AND



TWO RIVERS URBAN PARK SDF AND PHASE 1 MANAGEMENT PLAN: EXISTING LAND USE



Gardening and Urban Agriculture on the land next to and infront of the Environmental Education Centre i.e. next to Valkenburg manor House, is ideal for this purpose and will create opportunities for environmental education. This should be further explored.

3.3.1.6 Movement

In order to fulfil the idea of an 'island', only limited access to the precinct will be retained, and used by only those needing to gain access to activities taking place on the 'island' itself (Figure 11: Vehicular and Pedestrian Movement Routes). The external vehicular routes must remain as part of the Park. Therefore, materials used to upgrade the road and landscaping must be done sensitively, and used to secure part of the road for pedestrian activity. The eastern edge will act as a service route only, so as to prevent the 'island' from becoming a rat run as cars attempt to take a short-cut through to the eastern edge.

In the long term, it is desirable that the busiest routes and parking areas for the 'island' are kept within the built fabric, to reduce the effect of traffic on the Park, in terms of pollution, noise and the safety and rights of the non-vehicular park activities.

An internal pedestrian network and internal open space system as discussed in the design concept must be developed.

3.3.2 Valkenberg East

3.3.2.1 Envisaged Character of Precinct and Role within the Park

Valkenberg East comprises the old eastern side of Valkenberg Hospital. It has largely been vacated by the Hospital and is under considerable development pressure. There are however some long-term lessees of land and buildings, largely social support service providers or NGO's, who have an important role to play in the Park.

The mixture of desired uses in this precinct, the form of buildings, and the relationship between the buildings and the Park intend to create an environment of high amenity both for those living or working in the precinct and for visitors to the Park. The high value of the environment lends itself to use that go beyond merely accommodating work space, it has the potential to be a suitable living and recreational environment. The improvement of the environment and its relationship with the Park is important to the success of the Park, to profitable investment in this precinct and to the improvement of the quality of life in Maitland Garden Village.

There have been short-term developments by NGO's and micro enterprises in heritage and ecotourism, urban agriculture, as well as becoming involved in social upliftment of surrounding communities and therapeutic uses for patients from the adjacent hospital. It is important that these uses also be incorporated into the development of this precinct to attain a mixed use and sustainable precinct.

Substantial development opportunities are anticipated in this precinct, in the form of commercial, institutional and residential uses that take their form and type from that of the existing buildings, particularly with regard to the courtyard pattern of the existing built form. it is also important to retain the mixed use and vibrant character of the site and uses such as eco and heritage tourism and community development projects should be retained.

3.3.2.2 Planning Guidelines - Uses and Activities

At present some of the buildings on the site are not of a high quality but have considerable scope for mixed-use development and more intensive development. There is potential for considerable improvement of the environmental quality, which has already started to take place, through sustainable development initiatives.

There is substantial opportunity for commercial investment in office development with supporting, small-scale commercial/retail activities. Residential uses are also desirable in this precinct creating mixed-use areas as well as a consolidated residential area facing onto the Park. The redevelopment of existing buildings for mixed-use purposes, including residential is strongly encouraged.

Along the western edge of this precinct between the built edge fronting onto the Park and the historical hedge, a parkland activity spine accommodating recreation activities, picnic sites and *ad hoc* events is proposed.

Existing market gardening at Oude Molen is considered to be an asset to the Park. This activity is representative of the nature of activities that are desirable uses in multi-purpose parks across the City and symbolises the real possibility of urban agriculture. The operations at Oude Molen farm are also representative of the possibilities of integrating activities within the Park with the needs of people who are a part of or outpatients of the institutions located in and on the edge of the Park as well as a social upliftment program to residents of the nearby Maitland Garden Village. The potential of extending these productive uses will need to be investigated, given the proximity of the land to the wetlands and rivers.

3.3.2.3 Design Concept

This precinct has an important role to play in creating a value-adding edge to the Park. Limited development should enhance the edge of the Park, both from the point of view of fronting onto Alexandra Road and Pinelands Station to the west, and the Park to the East. Commercial development should be more intensive along the edge facing Alexandra Road, but this should decrease towards the Park in the west where residential and productive uses come into play, acting as a transition zone to the more environmentally sensitive areas of the Park.

Along the western edge development comprising a mix of institutional and residential has been proposed, with a focus on residential in the longer term to provide an active edge to the site, playing a surveillance role.

A space for the extension of related activities to urban agriculture is identified at the entrance of the precinct along Alexandra Road, where a landscaped entrance to the precinct and a gateway to the Park is created by means of a multi-functional space that may accommodate a periodic market, as well as acting as a 'park and walk' point. Related retail activities may cluster around this space and create a linear link to the Oude Molen farmhouse.

3.3.2.4 Urban Design Guidelines

Existing buildings, which have considerable cultural and historical value, should inform the form and character of any future development, particularly in relation to height and the system of courtyards they create. Of particular importance is the Oude Molen farmhouse, which is a

declared National Monument. The suitable height of the buildings is two storeys plus a loft (pitched roof), following a similar form to the existing structure. It is recommended that this height be increased marginally to the south of the site, in order to mitigate the effect of the Nashua building on the landscape.

The buildings should create and define a system of public and private open spaces. These open spaces should be connected by pedestrian routes and formally landscaped, so that a legible pattern of open spaces and routes defining land parcels and the movement system is formed across the site.

3.3.2.5 Edges

Valkenberg East is defined by Alexandra Road to the east. While developments may require fencing along this edge to maintain security, the barrier should be visually permeable, allowing for visual access to the precinct and to improve what is presently a hostile edge.

The western edge of the precinct is demarcated by the historical hedge, however the built edge is set back from this allowing for recreational space. Landscaping with trees must be continued along the entire western edge as a transition from the built form to the Park. The strip of productive land i.e. for urban agriculture, to the west of this edge (the viability of which still has to be tested) acts as a buffer or transition zone of less intense use, valuable for the protection of the wetland areas and associated birdlife.

Settlers Way bounds the southern edge of the precinct. The strip of unused land between the Nashua land and the Vincent Pallotti Hospital could be planted with trees in order to create a green corridor. An existing wall and road bound the northern edge of the Valkenberg East precinct, separating it from Maitland Garden Village. Future development in this precinct should use this road as an access route off Alexandra Road. This open space should then be redesigned to create a shared landscaped square as well as incorporating a 'park and walk' link to the Park.

3.3.2.6 Movement

The site is well located in terms of access, with direct access to Alexandra Road and to Pinelands Station (Figure 11: Vehicular and Pedestrian Movement Routes). There is a limited access route from this precinct to Valkenberg West. This route should remain a controlled or private access route, so that it does not become a through route to Observatory from the east or*vice versa*. However, this should not exclude Maitland Garden Village residents from being able to get to Valkenberg Hospital. A gateway, 'park and walk' area, and green link to the Park have been located at the main entrance to Valkenberg East from Alexandra Road and Pinelands Station. The edge between Valkenberg East and Maitland Garden Villagehas been reconfigured, so that the wall between the two areas is taken down. This should begin to become a clear and landscaped public open space as well as an access route from Alexandra Road to both sites and to a 'park and walk' point on the edge of the Park.

A Ring Road on the northern half of the site has been proposed to create a circular vehicular route through the site and define a land parcel that may be appropriate for an office park development. Informal pedestrian routes have been formalised through the Valkenberg East precinct to ensure public pedestrian access to the Park and through to Maitland Garden Village.

3.3.3 Alexandra Institution

3.3.3.1 Envisaged Character of this Precinct and its Role within the Park

The existing role and historic character of the Alexandra Institution should be retained as it is, with improvements where necessary, particularly with regard to the maintenance of the historical buildings and the rationalisation of the more modern obtrusive structures, especially thosethat obstruct views to and from the Nieuwe Molen.

The site of the Institution has a history that is part of the pattern of cultural history across the Park. The Nieuwe Molen is the only remaining built structure symbolising the agricultural history of the region and views of the mill complement the range of vistas within the Park. This precinct has a role to play in facilitating visual access to views of the mill and historical buildings, through its own plans for the Institution. The edge it shares with the Park is intrinsic to the quality of the Park and the quality of the environment internal to the Institution.

3.3.3.2 Planning Guidelines - Uses and Activities

As an established institutional land use, the Alexandra Institution is an appropriate and desirable land use for the edge of the Park. In the long term, limited development opportunities exist within the Alexandra Institution to the east of the site along Alexandra Road, and along the southern edge of the site, for the purposes of expansion of the Institution itself or diversification of activities within the role and function of the Institution. Some of these uses may be released from the confines of the Institution, and become more integrated with neighbouring uses and activities, while remaining near to the Institution for support and administrative purposes.

The Alexandra Institution is presently in a process of releasing buildings within the grounds, along the southern edge, to be run as group housing independently by NGO's. These homes are presently within the confines of the Institution itself, but may be more integrated into the fabric of the neighbouring area. A complex of nurses homes along this same edge has also been the subject of a proposal to be released in order to provide a home for adolescent social services or privatised board and lodging for nurses. The supporting NGO services are also seeking room to expand. These uses could also be more integrated with the neighbouring fabric.

The current sharing of the sports field by the Institution with the school of Maitland Garden Village is encouraged. Sharing public resources and facilities is a principle that is encouraged across the City.

3.3.3.3 Design Concept

A formalised landscape structure is envisaged that enhances the role of the historical buildings in the landscape and creates a structure of green, pedestrian spaces that continue across to Maitland Garden Village and through to Valkenberg East.

3.3.3.4 Urban Design Guidelines

The view line from the Nieuwe Molen to the Park and further west should be opened up. Also, pedestrian links as social landscaped spaces through to Maitland Garden Village in both north-south and east-west directions should be formalized.

3.3.3.5 Edges

Edges of the Alexandra Institution are defined by their existing boundaries. However, the nature of these boundaries needs to be improved to enhance the environmental quality of the surrounding areas and the Park to the west, as well as to enable visual appreciation of the environment within the Institution itself. Important open spaces eg. space in front of administration building should be retained. These spaces are also important for therapeutic purposes for the institution.

3.3.3.6 Movement

Pedestrian movement from the Institution to Maitland Garden Village and beyond sets up an informal pattern of linkages across precincts on the eastern edge of the Park (Figure 11: Vehicular and Pedestrian Movement Routes). This is a pattern of access that should be formally accommodated.

3.3.4 Maitland Garden Village

3.3.4.1 Envisaged Character of Precinct and Role within the Park

The existing role and character of Maitland Garden Village is important to the City and the Park. As a well-located, affordable residential area it is an asset to the city that should not be threatened. The area is however in need of upgrading, which would improve the lives of residents and enhance the opportunities for limited residential development alongside the village. Its history is significant to the City's contemporary history and adds to the already rich cultural history of the Park. The buildings in this precinct are historically important, as it has retained its original grain and character. A residential area on the edge has an important role to play in the future of the Park, as it provides a potential pool of frequent and regular users of the Park, who will also monitor informally what happens in the Park.

3.3.4.2 Planning Guidelines - Uses and Activities

The uses and activities in the village will largely remain the same. There is potential for an additional row of residential uses along the western edge of the village. Institutional and/or residential uses have been proposed for the edge between the Alexandra Institution and Maitland Garden Village.

3.3.4.3 Design Concept

The idea is to maintain Maitland Garden Village as a village of historical value, on the edge of the Park, but to propose actions that would enhance its role and contribution to the Park, improve its local environment, and facilitate integration between residents of the village and neighbouring land uses.

A defined landscape structure or green route is envisaged to create a north-to-south system of pedestrian linkages across the entire eastern edge of the Park, from the Alexandra Institution to Valkenberg East. These linkages will have an integrative function that at the same time should not threaten the unique identity of each precinct. A green framework of east to west linkages from Alexandra Road through to the Park is proposed to promote managed access to the Park.

The existing edge of the village backs onto the Park. An additional row of housing fronting onto the Park is proposed to provide surveillance and create a more attractive edge to the Park. The wasted space between the Alexandra Institution and the village has been rationalised to create new residential/institutional opportunities and improve the edge between the village and the Institution.

Opportunities for urban agriculture and other productive activities along the western edge of the village have been identified as a transition area to the Park. This has the potential to be a productive resource for the low-income resident community of the village. The viability of this would need to be explored further.

3.3.4.4 Urban Design Guidelines

The existing village scale, form and character must be retained in any new development, maintaining commonage, and the tight structure and linkages between open spaces and public institutions. Improving the edge between Maitland Garden Village and Valkenberg East through landscaping and redesign of the road structure and barriers, should serve as the beginning of an improved relationship between the village and future development through improvements. This will also set up a relationship between the Park and urban activities on its edge.

3.3.4.5 Edges

The eastern edge of Maitland Garden Village is defined by Alexandra Road. The southern edg of the village is presently demarcated by a road and wall separating it from Valkenberg East. It i proposed that the edge be redesigned to form a landscaped square shared by the village an future development in Valkenberg East. It will also function as a 'green link', a gateway and possible 'park and walk' point for the eastern part of the Park.

The western edge is secured by a row of residential units facing onto the Park. The northern edge has been consolidated, with limited links to the Alexandra Institution.

3.3.4.6 Movement

A north-south pedestrian linkage along the eastern edge of the Park, from the Alexandra Institution to Valkenberg East is proposed (Figure 11: Vehicular and Pedestrian Movement Routes). A 'park and walk' and a pedestrian route through to the Park from Alexandra Road have been formalised, creating a friendly and permeable edge between the village and Valkenberg East. In a similar fashion, and east-west link from Alexandra Road to the Park should be secured between the village and Alexandra Institution.

3.3.5 The River Club and Observatory

3.3.5.1 Envisaged Character of the Precincts and Role within the Park

The River Club and Observatory represent important activities in structuring the character of the Park, as they are existing land uses that illustrate the role a range of activities can play in a multipurpose park. The cultural-historical value of Observatory Hill is a vital contribution to the role of the Park as a place of environmental, cultural, historical and recreational interest for the City. The River Club too has historical character and a role that should be enhanced.

The River Club is one of the most active areas in the Park, an 'island' of commercialised recreation, which has been host to a variety of events. These recreational activities and events should continue to take place as they will both capitalise on and contribute to the potential ofthe Park as a place of recreation, relaxation and outdoor education.

3.3.5.2 Planning Guidelines - Uses and Activities

Developments in these precincts must continue to form a commercialised recreational core area within the Park. The Contextual Framework envisages recreation-related commercial use for the River Club, including sporting facilities and related commercial uses. Any future development at the River Club would have to wait the outcome of the hydrological study currently being undertaken by the City of Cape Town, and be in accordance with the Development Control Guidelines in Flood Prone Areas and conditions of the Catchment Management Department and Stormwater Branch. Depending on the outcome of the above reports, development opportunity exists south of the existing River Club buildings. Special attention will then need to be given to the canal bank.

The use of the South African Astronomical Observatory (SAAO) site is somewhat different and the sensitivity of the landscape and the operations of the SAAO mean that it will remain in the relatively exclusive use of SAAO members and associates, although guided public tours may take place. No further development is envisaged.

3.3.5.3 Design Concept

The collection of entrances to the SAAO, the River Club and the existing Valkenberg Hospital is an ideal location for a gateway to the Park. The gateway should draw attention to and celebrate the Park. This area would also be the ideal location for a visitors or information centre.

The existing approach to the River Club buildings should be retained and landscaped as a significant entrance. New possible development (within existing footprints) along the eastern side should frame the entrance corridor on the one hand and face onto the canal on the other. The concept for proposed development potential has largely kept within the confines of the existing footprint, in order not to increase surface runoff. Any parking areas in this area must be landscaped to mitigate the visual impact, and surfaced to accommodate stormwater.

The western edge of the River Club should be maintained as a green edge, to contribute to the overall visual appearance of the Park and to maintain a green visual corridor along Liesbeek Parkway. Land on this northern edge, although home to a rich birdlife, is badly degraded and will require environmental improvement. Environmental upgrading in the interests of recreational activity may be a source for this upgrading. However, this will need to be done sensitively and further studies may be required. Additional buildings are undesirable to the north of the River Club buildings.

Substantial quantities of toxic landfill have been dumped in the far northern part of the River Club. If this fill is removed or used for selective landscaping, the land may become useful for flood accommodation in the confluence area (largely from the Black River). This may be done through a series of ponds, which would also serve to purify runoff from the River Club's driving range, creating an artificial wetland system, or through water channels carved through the fill. This area could also be used as recreational space for the public and for golfers, with parts landscaped as secluded areas for birdlife as this area is presently a habitat for birds.

The river edges must be made accessible to the public by means of appropriately located public pathways. The old Liesbeek River course should be rehabilitated and the feasibility of diverting some of the flow from the Liesbeek River into the old river course should be investigated. Redesigning and landscaping the banks of the canalised section of the Liesbeek River to a more natural state will enhance the amenity value and ecological functioning of the river.

3.3.5.4 Urban Design Guidelines

The buildings inside the River Club are contained within a small area. The intention is to maintain most of the area as a green open space, in keeping with the idea of a park. Where development is proposed within the existing footprint, buildings should contribute positively to the surroundings and respect the ecological functioning of the river. The Catchment Management Department 's Development Control Guidelines in Flood Prone Areas are relevant to new developments. .Possible additional buildings on the River Club site should take on a form and height that is similar to that of the existing buildingswithout detracting from the importance and vista to the existing building. Note that the addition of any new buildings on the site will be strictly subject to conditions and requirements of the Stormwater Branch and the Catchment Management Department as well as the Environmental Management Branch.

Little change is required to the environment of the SAAO. However, as a public asset the public should be allowed limited access to appreciate the history and culture represented by the SAAO. The potential of the SAAO as a visual focus should be accommodated through more visually permeable barriers around the site. In addition to facilitating visual appreciation of the Observatory, improved visually permeable fencing would allow a degree of surveillance of the Park and of the SAAO, which would enhance security.

3.3.5.5 Edges

The eastern edge of these precincts are defined by the Black River, while the western and northern edges are defined by the old Liesbeek River course. The southern edge is defined by the road leading into the Park. The two precincts are separated by the canalised section of the Liesbeek River.

3.3.5.6 Movement

Vehicular access is from a point just beyond the intersection of Liesbeek Parkway and Station Road (Figure 11: Vehicular and Pedestrian Movement Routes). Changes to this intersection will need to be considered to improve accessibility to the site. Pedestrian safety in crossing the intersection is another central concern. The Observatory Station is within walking distance of this intersection.

The approach to the River Club buildings and the open spaces alongside it will need to contain all vehicular activity on the River Club site. Spillover parking space needs to be managed so that damage to the Parkland is avoided. Access to recreation and golfing activities on the northern part of the site must be taken through the River Club entrance and managed by the owners.

Pedestrian pathways must be secured along the river edge and along the edges of the Raapenberg wetlands. A small pedestrian bridge may be desirable across the river between the SAAO and the River Club.

3.3.6 Hartleyvale and Malta Park

3.3.6.1 Envisaged Character of the Precinct and Role within the Park

Hartleyvale and Malta Park form an important and highly visible open space on the western side of the Park. It is primarily used for sporting activities and recreational purposes. The Black River (Fir Road) Business Park on the northern tip of the precinct has been included to improve on the multi-purpose functionality of this part of the Park and for its contribution in the upgrading of road infrastructure along Liesbeek Parkway. The Black River Business Park is located on the edge of the Park in which development comprising office, residential or other land uses is appropriate.

3.3.6.2 Planning Guidelines - Uses and Activities

The primary use of this precinct must continue as a sporting activity and recreational core area within the Park. Business activities will be confined to the Black River Business Park in the north. While no further development will be allowed within this precinct, maintenance and upgrading of existing facilities will be ongoing.

3.3.6.3 Design Concept

The existing entrances to the sports facilities and recreational areas will be maintained. An additional entrance has been planned for the Black River Business Park off Liesbeek Parkway. Any parking areas in this area must be landscaped to mitigate the visual impact, and appropriately surfaced to accommodate stormwater. A "historical industrial" architectural theme i.e. incorporating the awareness of Hertiage Resources in the precinct and design of buildings and educating the public in this regard, is being promoted for the development that will compliment the aesthetics of nearby developments.

3.3.6.4 Urban Design Guidelines

Little change is required to the environment of the Hartleyvale and Malta Park precinct. The largest part will be maintained as green open space. Any new development will be contained within the Black River Business Park, where buildings should contribute positively to the surroundings and must take cognisance of the archaeological remains found on the site. The height of buildings should not compromise the historic views of Devil's Peak and Table Mountain which is important from the Park.

3.3.6.5 Edges

The eastern edge of the precinct is defined by Liesbeek Parkway, while the western edge is defined by the urban edge, which separates it from Observatory. The Black River Business Park will form a convenient gateway to the Park from the northwest along Liesbeek Parkway.

3.3.6.6 Movement

Vehicular access is gained from several points along Malta Road and Fir Road on the western side of the precinct (Figure 11: Vehicular and Pedestrian Movement Routes). Station Road currently provides access from the east, while access off Liesbeek Parkway to the Black River Business Park was recently approved. The access road will be fully landscaped to the approval fo

the Environmental Management Branch and will also be used for parking by the general public. Observatory Station is within walking distance of the central portion of the precinct.

A pedestrian pathway must be secured along Liesbeek Parkway in Malta Park and along Malta Road in the Hartleyvale section. Pedestrian access into Observatory will also be allowed at various points along the route.

3.4 Infrastructure and Services Framework

3.4.1 Transportation Network

A Traffic Impact Assessment (TIA) has been undertaken by the Cape Town Administration: Transportation Planning Branch, to provide guidance on the transportation issues associated with the development of the Park. The full TIA is attached as Annexure 2. A summary of the TIA is provided below.

3.4.1.1 Road Infrastructure Upgrading Requirements

The TIA considered a short-term as well as long-term development scenario. It should be noted that these are scenarios and not recommendations:

- The short-term development scenario takes into account all development rezoning/consent applications that have either already been submitted to the City of Cape Town for approval or are pending approval. These developments have been used to produce a development scenario for the study areas that is likely to be achieved within 1 to 5 years.

- The long-term scenario is the maximum acceptable level of development as identified in the Gibb Africa Black River Urban Park Pre-Feasibility Study and this has been used to produce a development scenario that could be achieved within 5 to 10 years.

From the analysis of the abovementioned development scenarios, the following conclusions and recommendations can be made:

Short-term Development Scenario

- The proposed Valkenberg East development will create serious congestion problems at the existing Alexandra Road/Raapenberg Road intersection during both the am and the pm peak periods. In the absence of any upgrading to this intersection, approximately 30% of the proposed development (±400 trips in the am peak and ±460 new trips in the pm peak) can be accommodated. The installation of a SCOOT (Split Cycle Offset Optimisation Technique) system at this intersection may improve capacity slightly at a relatively low cost.

- If the Alexandra Road/Raapenberg Road intersection is upgraded and Alexandra Road is upgraded to four-lane dual carriageway between Raapenberg Road and the development access, the size of the development can be increased to approximately 65% of the proposed size (±860 new trips in the am peak and ±1 000 new trips in the pm peak). The position of the Alexandra Road/Raapenberg Road intersection on top of the railway bridge makes any upgrading of this intersection extremely difficult and costly. The widening of Alexandra Road may however also have possible negative impacts for the pedestrians

and residents of Maitland Garden Village who already have problems entering and exiting the residential area during peak times.

- The Liesbeek Parkway/Station Road intersection is currently at capacity and experiences high levels of congestion during the pm peak. The proposed RPP housing development and the River Club Gym and Health Club could only be approved subject to the upgrading of the Station Road/Liesbeek Parkway intersection and any other upgrades required to the internal road network.

- The Black River Business Park should only be approved subject to the upgrading of the Station Road/Liesbeek Parkway intersection and the construction of an additional access road linking Malta Road to Fir Street, to provide improved access to the precinct.

- The Berkley Road/Alexandra Road intersection can accommodate the traffic from the development and will not require any upgrading.

Long-term Development Scenario

- Additional development of Maitland Village, Valkenberg West, Valkenberg East and Malta Park i.e. Black River Bussiness Park, cannot be accommodated within the short-term scenario upgraded network. A new access point to the site would be required from Liesbeek Parkway. Liesbeek Parkway would also require upgrading to a four-lane dual-carriageway road between Station Road and the N2.

- No further development should be considered until a detailed investigation of the feasibility of providing an additional access point off Liesbeek Parkway, the widening of Liesbeek Parkway and making use of the internal bridge over the Black River Parkway, is carried out. The widening of Liesbeek Parkway may however encroach upon a bird habitats and passive recreation areas. It may also drastically reduce the amount of parking space available in the open ground opposite the Hartleyvale Sports Complex, which is filled to capacity during large events.

A summary of the road infrastructure upgrades required for both the short- and long-term scenarios is illustrated in Figure 11.

It is further recommended that the establishment of a financial vehicle for holding and utilizing developer capital contributions.

3.4.2 Impact of Development on the Cape Town Sewerage System

A study entitled 'Preliminary Assessment of the Impact on the Cape Town Sewerage System by the Proposed Culemborg Development' was undertaken in November 2001, for the City of Cape Town. The purpose of the report was to identify sewage catchment areas and undertook a desktop evaluation of the available capacity of the existing sewerage system that could accommodate the sewage from the future development on Culemborg.

While Culemborg does not form part of the study area, the lack of capacity in the sewerage system has always been identified by the local authority as a constraint to future development of the Transnet and the SARCC land, most of which is within the Park area. The work undertaken within the abovementioned report, although by the author's admissions only a preliminary assessment, has been used to identify and demystify the impact of development within the Park

area on the Cape Town sewerage system. All information in the following section has been extracted from the report.

The main elements of the Raapenberg system are the Woodstock Sewer, the Raapenberg Pump Station and the Athlone Sewage Works. According to the report, officials believe that the Woodstock sewer is experiencing capacity problems during wet weather conditions, especially at Malta Park. However, an assessment of the capacity of the pipes showed that sewer flows were less than 50% full for most sections. The view that was adopted was that this sewer would have capacity to accommodate the flow from Culemborg but that some sections may experience a surcharge, especially during wet weather.

The report found that the Athlone Sewage Works, if upgraded, would have sufficient capacity to accommodate the maximum pumping potential for Raapenberg Pump Station. The latter was found to easily accommodate the additional flow from the proposed development at Culemborg. The conclusion of the report was that a more detailed study of the sewerage system (sewers and pump stations) is required in order for the local authority to be able to evaluate the future impact of densification and land uses in the catchment areas. It was also recommended that the effects of stormwater infiltration should also be investigated as the sewerage systems in the greater City of Cape Town experience abnormally high levels of stormwater infiltration and this causes sewers to overflow during wet weather conditions. This leads to the perception that the sewer cannot accommodate new developments. In addition, Raapenberg Pump Station is to have its capacity increased in the near future.

The findings of the report are based on the future development of Culemborg, which is only a small part of the area that could be developed within the Park. Thus, while there appears to be capacity within the system, a detailed study of the impact of future Gross Leasable Area (GLA) for the study area should be undertaken by the Services Branch in order to ascertain any capacity limitations. Detailed modelling of the systems is also required to determine and identify specific problem areas and to provide upgrading proposals where necessary. Any new developments will cause an increase in discharge, which may require the existing system to be upgraded. Any site that has to be rezoned to permit development will have to pay a levy towards future upgrading of the sewers. This levy will have to be calculated, depending on the type and size of development.

In conclusion, a more detailed assessment of the sewerage capacity is needed. The effects of stormwater infiltration must also be investigated due to overflow problems experienced during the wet winter months. In the interim, as much as possible of the area should remain undeveloped, therefore not adding discharge to the sewers.

It is further recommended that a financial vehicle for holding and utilizing developer contributions be investigated i.e. developers to pay in the form of a levy towards future upgrading of the system. The levy will have to be calculated, depending on the type and size of development.

On 8th May 2003, the Planning and Environmental Portfolio Committee (Item PLAN 24/05/03) resolved to recommend that the development levies be imposed for development requiring new development rights.

SECTION 4: PHASE 1 MANAGEMENT PLAN

4.1 PURPOSE OF THE PHASE ONE ENVIRONMENTAL MANAGEMENT PLAN

The preparation of the Management Plan has been divided into two phases. The Phase 1 Management Plan initiates the beginnings of a management plan for all Council-owned land in the Park. The plan identifies management objectives and policies aimed at conserving and enhancing the natural areas and the habitats they support. It also provides guidelines for future uses and activities adjacent to the Park, to ensure that future development contributes positively rather than impacting negatively on the environment. Section 5 explores the formation of an institutional framework for the long-term management of the Council-owned land.

The Management Plan has also been prepared to fulfil the PAWC's requirement for the preparation of a management plan for Raapenberg and Pallotti wetlands, prior to approving the extension of the boundaries of Raapenberg Bird Sanctuary, to include the Pallotti wetlands (Figure 12: Proposed Extension of Raapenberg Bird Sanctuary). Phase 2 of the Management Plan will be extended to identify priority projects, linked to budgets and time frames, and the establishment of an institutional arrangement to manage the natural areas.

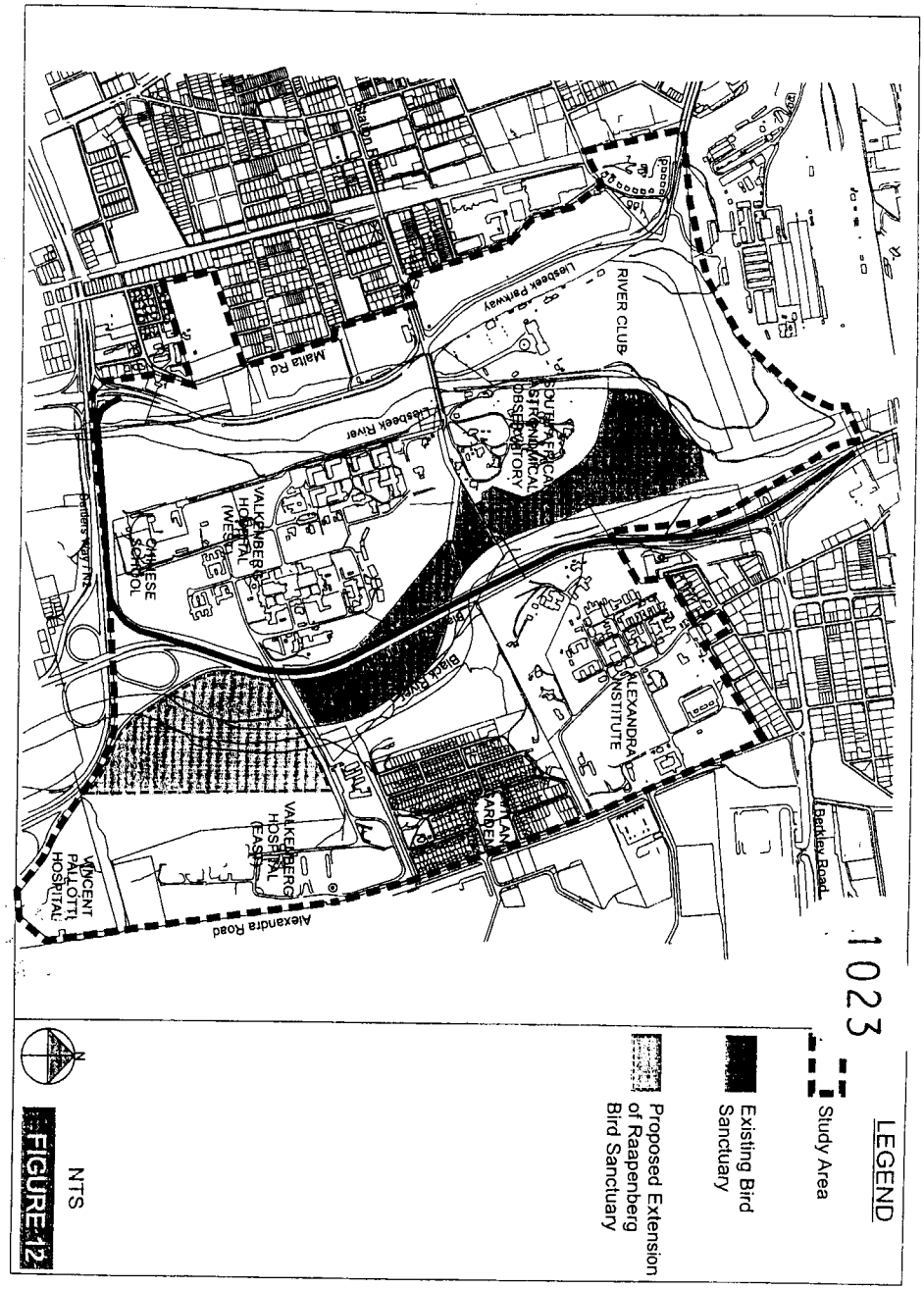
4.2 THE PARKLAND

The Parkland comprises all Council-owned natural areas, which include the Raapenberg, Pallotti and Valkenberg wetlands, sections of the Black and Liesbeek Rivers, and adjacent open space areas and sports fields owned by the City of Cape Town (Figure 13: The Parkland). The Parkland represents a significant element of the City's open space network both at a local and metropolitan level.

The significance of the area is attributed to the following:

- Raapenberg and Pallotti wetlands are virtually all that remains of the extensive wetland system that originally occurred along the Black River.
- The area provides a range of habitats for avifauna and plant species, and plays an important role in the broader biological corridor system, which stretches across the Cape Metropolitan Area. Annexure 3 lists avifauna and plant species recorded in the study area.
- It plays an important role in flood attenuation, with a combined upstream catchment area of 224 km^2.
- It has the potential of being a positive, active and passive recreation space, and could play a role in environmental education and research.
- In light of the above, it is imperative to conserve these natural areas and the habitats they support. This can be achieved partly by identifying appropriate land uses, development parcels, design guidelines and movement routes within and on the edge of the Park, but also requires management actions aimed at protecting and rehabilitating the natural areas, providing recreational amenities and addressing issues such as safety and construction. To realise this a series of management objectives and policies has been prepared for the Parkland.

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN:
PROPOSED EXTENSION OF RAAPENBERG BIRD SANCTUARY



3.3 THE DEVELOPMENT PRECINCTS

3.3.1 Valkenberg West

3.3.1.1 Envisaged Character of this Precinct and its Role within the Park

The character and role of this precinct are vital to the character of the Park as a whole. It is an 'island' (between two rivers) in the centre of the Park whose activities may both impact on and contribute to the quality of the Park. The intention is to generate a village-like atmosphere, consolidating the built fabric, where movement within the village is largely pedestrian. The existing built edge will be clarified and in places pulled back to release more space for the Park and to generate a better environment for the residential and institutional uses proposed for this precinct.

This precinct will accommodate a range of uses and activities within the edges described to ensure that the Park will be used day and night, in order to avoid the Park becoming a dangerous place outside of recreational time.

3.3.1.2 Planning Guidelines - Uses and Activities

Many of the buildings on the Valkenberg West site are currently used by the Valkenberg Hospital, which has set certain constraints on the future of this precinct. However, the Hospital is undergoing a process of rationalisation and consolidation providing opportunity for the introduction of new activities in the evacuated areas. It is envisaged that this precinct be used for residential and institutional purposes. Renewal of existing buildings is particularly conducive to institutional uses. Sensitive residential development should be complementary to this and provide the required surveillance day and night. The Provincial Department of Health is still deciding on the future role of mental institutions on the Cape Flats, i.e. there is a possibility that existing facilities could be used more optimally for this purpose.

The particular nature of these uses will be dependent on the traffic generation of activities associated with these uses. The SDF seeks to avoid uses or activities that generate large volumes of traffic as this is considered to compromise the environmental quality of the Park as a whole.

Valkenberg Hospital itself has certain requirements. In the interests of the patients' health there should be quality green open space for patients to use in peace and safety. The Hospital and its patients have considerable security requirements in the sense that the Hospital needs to be secure from outside intruders. A degree of integration of patients' activities and the activities in the Park could be encouraged. Certain parts of the Park may act as therapeutic centres. The existing Oude Molen farm in the Valkenberg East precinct as well as the existing open spaces within the precinct are examples of this, providing opportunities for interaction and productive therapy for patients.

3.3.1.3 Design Concept

The objective is to retain the island-like quality by creating strongly defined edges. A village-like quality is envisaged by creating a system of public, semi-public and private open spaces. The design of open spaces follows the existing courtyard design, which reinforces the overall courtyard system. The open space next to and in front of the Valkenberg Manor House is of

special importance and must be protected. The open spaces should be linked via a system of pedestrian routes.

The Porter Reformatory, selected neighbouring buildings, and the historical part of the Courtyard Hotel are buildings of architectural and cultural significance that should be used to create a sense of place for the village and inform the style and form of new or renovated buildings. These buildings are to be considered as visual foci from within and outside of the Park through unbuilt corridors that open up and secure vistas to the buildings. This visual access should also serve to build a relationship between the Park and the Village, as people enjoy visual appreciation of the Park and its history as a site for public, institutional uses through vistas that focus on important historic facades, as well as vistas of the rivers and the mountain from the historic buildings.

There are certain qualities that exist on the site owing to the nature of its use and history as a health facility, such as the grassed and tree-covered open spaces and courtyards. The quality created by these spaces must be enhanced as it contributes to the character of the village.

3.3.1.4 Urban Design Guidelines

The symmetry of the entrance, and the vistas, towers and courtyards of the identified existing buildings provide a strong sense of order. Heights of new developments should relate to existing buildings in this area, which are predominantly two stories in height and have high-pitched roofs and significant dormer windows. Land parcels and fixed facade lines must reinforce the system of pedestrian routes and public open spaces. Facades must line routes, form squares and line internal private courtyards. The Valkenburg Manor House is particularly important. Views to and from the building should be protected and enhanced i.e. the open space next to the building is important in fulfilling this role.

Existing mature trees, which contribute to the cultural landscape and reinforce the structure, should be retained. New trees and landscaping should also attempt to contribute positively to the cultural landscape and reinforce the spatial order.

3.3.1.5 Edges

To the east, edges are defined by the Black River Parkway. To the south, edges are defined by Settlers Way (N2), existing development and the sports field. To the west, the edge is defined by the Cape Town Environmental Centre. This excludes the new Valkenberg buildings. Over and above the ecological consideration, it is considered that these buildings are already set too close to the river to fully experience the visual, recreational and open space qualities that can be enjoyed along the banks of a river.

Definite fixed, identifiable structures in the landscape, on the edge between the Park and the village, should serve as an indicator with respect to the edge of the Park itself so that activities that threaten to invade the Parkland or the enjoyment of the Park may be recognised and controlled. Edges should be interactive and should act as a form of surveillance over the Park i.e. buildings overlooking / facing the Park.

There are also particular land uses that are appropriate on the edge as 'transition zones' to the Park. These are mostly open and green in nature, such as sports fields or event spaces. Market gardening or urban agriculture is also a suitable land use in these areas. Cognisance should be taken of the land next to and around the Manor House which was historically used for farming.

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: TYPES OF OPEN SPACE

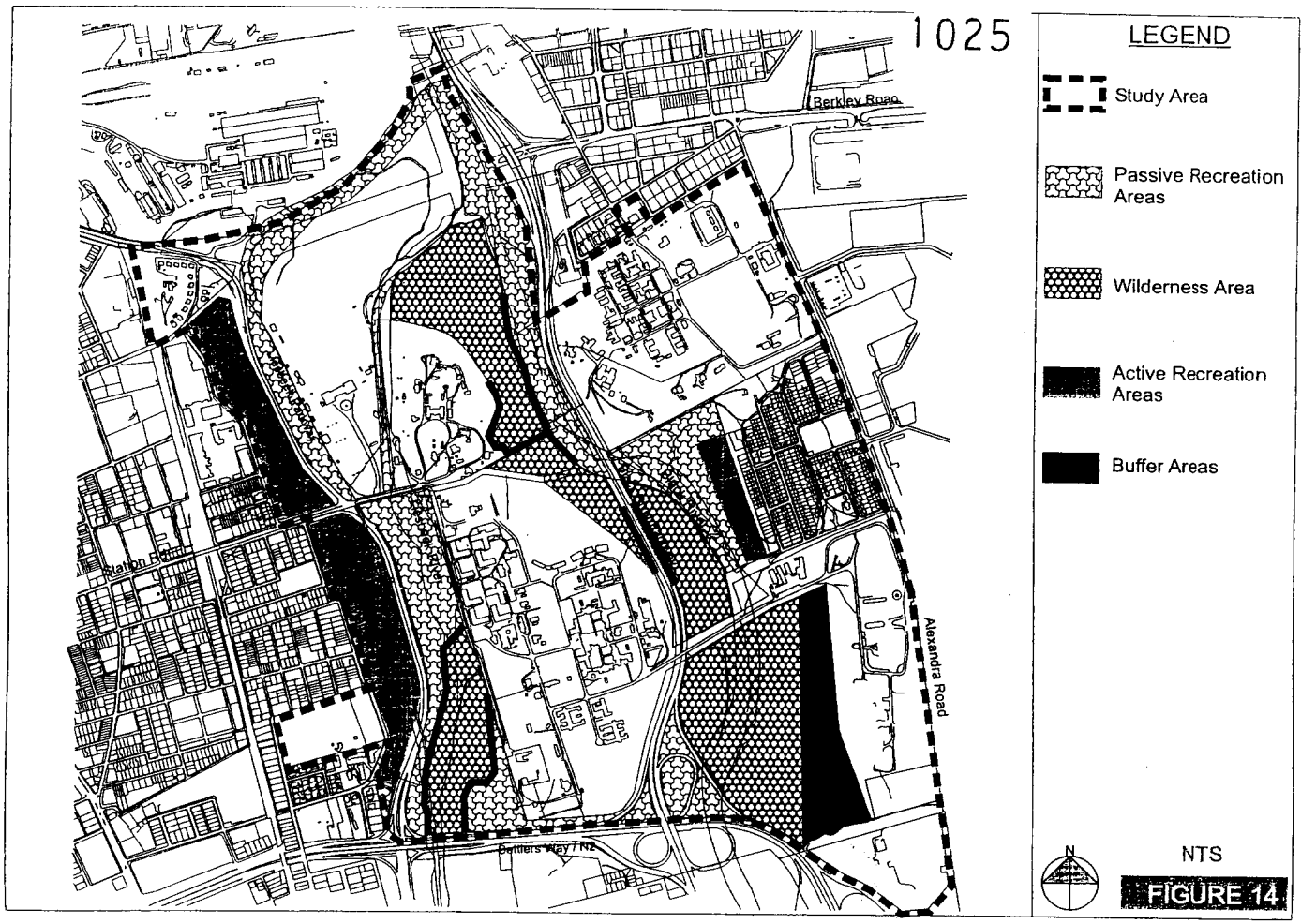


FIGURE 14

TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN: THE PARKLAND

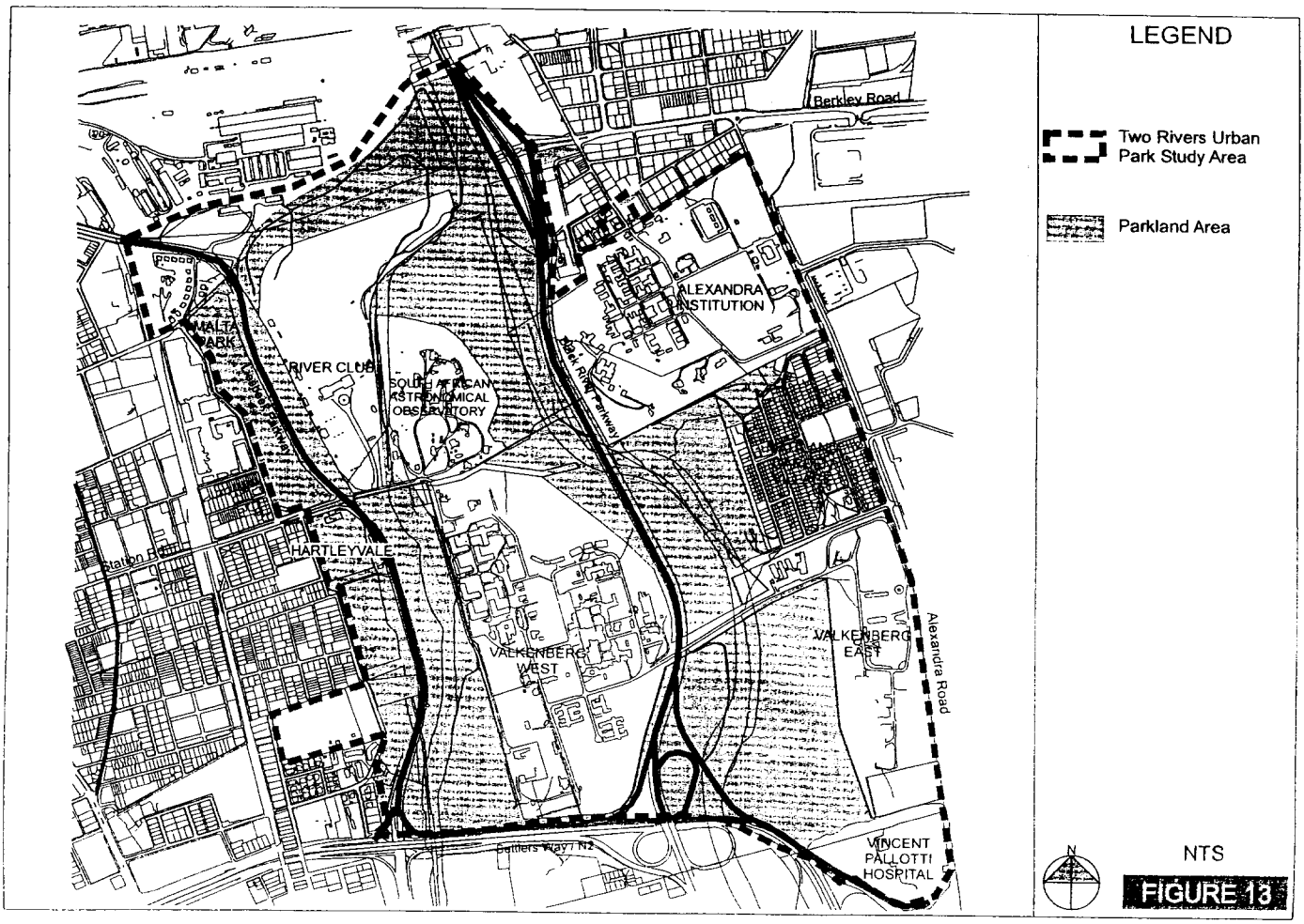


FIGURE 13

- River and Wetland Management
- Management of Recreation Facilities
- Management of Access, Uses and Security
- Management of Development Proposals
- Management of Infrastructural Services
- Management of Human Resources
- Management of Research, Training and Monitoring
- Management of Finance and Marketing

Prioritisation of actions and the implementation thereof will only be undertaken in Phase 2 of the Management Plan.

4.4.1 River and Wetland Management

Actions in this section should fulfil the following objectives:

- *Conserve the wetland and river environment through sound management principles.*
- *Protect and enhance species diversity.*
- *Protect property and promote public safety.*

4.4.1.1 Water Issues

In order to improve the water quality of rivers and wetlands, create potential habitats for birds, and protect property and public safety the following projects should be undertaken:

- Water hyacinth and parrot's feather should be removed from rivers. Alternative uses for the removed material should be investigated, e.g. mixing with compost and/or bark/tree chips for use in the soil preparation for planting purposes. This can only be done within the context of the Conservation of Agricultural Resources Act and special permission will be required.
- Dredged material should be removed from site and dumped at a legal waste-disposal site. Where appropriate, alternative uses of dredged material should be explored.
- Exploration of alternative methods of dredging and cleaning that have less impact on the environment should be explored, e.g. harvesting.
- Buffer areas should be planted with appropriate indigenous trees, shrubs and grasses to increase the capacity of the area to filter out pollutants from stormwater that flows over the buffer areas.
- Re-establish appropriate riverine vegetation along the banks of the Black and Liesbeek Rivers.
- Monitor whether the breeched berms in Raapenberg North are at an appropriate level to permit floodwaters to flow into Black River. If not, increase or decrease levels as appropriate.

- Investigate the possibility of reducing the height along the entire length of the berm.
- In the mown area west of Pallotti wetlands, introduce a seasonal flow of water from the Black River by way of a pipe or partial lowering of the berm, thereby creating a reed marsh.
- In the old course of the Liesbeek River, clean the river, plant indigenous trees and shrubs along its western and northern banks, and increase flows by diverting more flow through this course rather than the canal in order to provide a natural control against waterweed infestation.
- Create a wetland by regulating existing drainage from the Valkenberg picnic site adjacent to the Valkenberg wetlands. This would also assist in removing excessive nutrients from the stormwater, which drains via this area into the Liesbeek.

4.4.1.2 Avifauna

Diversity of waterbird species should be maximised by maintaining and enhancing the following habitats:

- Permanent open water bodies, including ponds surrounded by reedbeds.
- Islands and perches. Birds prefer islands with sloped shores as access from the water is easier.
- Reedbeds.
- Temporary pans, which expose muddy shores when drying out.
- Low marsh areas.
- Terrestrial vegetation of medium height and trees adjacent to the wetlands.
- Hybrid or exotic birds should be eradicated, in particular the exotic Mallard Duck, which hybridises with the indigenous Yellowbilled Duck.

4.4.1.3 Flora

A programme to reintroduce indigenous plant species to appropriate niches should be established. The programme should take the following form:

- Species to be selected from previous botanical records of the area.
- Species to be introduced at appropriate locations, taking into account their ecological requirements.
- Methods of revegetation.

- Priorities.
- Time frame.
- Monitoring and review.

The following plant species are some examples that should be included:

- *Salix mucronata*, an indigenous willow growing in wetland habitats, which is now thought to be extinct on the Cape Peninsula could be reintroduced to this area.
- *Leucadendron levisanus*, an endangered wetland shrub species that previously flourished on the Cape Flats, could be planted on certain sites on an experimental basis.
- Reintroduction of some fynbos plants, such as *Protea repens*, to attract more bird species. The most suitable area would be east of the Pallotti wetlands.
- *Moraea aristata*, which grows within the SAAO property, could be planted at Raapenberg North.

For the possible propagation of rare and endangered plant species, authorization may be required from the Western Cape Nature Conservation Board (WCNCB).

Planting of trees provides roosting/nesting and fruit/seed/nectar for birds. These trees should be indigenous or non-invasive exotics. Small specimens are recommended as they are able to adapt more easily. Planting should be undertaken on the edges of the wetlands, on slightly higher areas, which are not inundated in winter. The beginning of winter is the best time for planting. The following species are recommended: *Salix mucronata, Harpephyllum caffrum, Syzygium cordatum, Tarchonanthus camphoratus, Rhus pendulina, R. lancea, R. natalensis, R. tomentosa, Erythrina species, Sideroxylon inerme, Carissa macrocarpa, Cunonia capensis.*

Commercial removal of plant material should be prevented, except where it does not impact negatively on the wetland habitat, is sustainable, contributes to job creation, and for the propagation of rare and endangered species. In the latter case, authorisation from the management body must be obtained.

An alien invasive eradication programme should be established, identifying alien invasive species to be eradicated, methods of eradication, priority areas, time frames, and monitoring. The following alien species should be removed to the maximum extent where practical:*Polygonum kitaibelianum, Sesbania punicea, Populus species, Acacia saligna, A. cyclops, A. mearnsii, Pennisetum clandestinum, Paspalum vaginatum* and noxious waterweeds. Also see the amended Conservation of Agricultural Resources Act 43 of 1983 for the complete list of declared alien invasive plant species.

Although mostly alien, the trees along the berm adjacent to the Pallotti wetlands and Raapenberg North provide important roosting and perching habitats for several species. Therefore, indigenous trees should be planted and allowed to establish themselves before removing larger alien trees.

The hedge of indigenous plants that was established by Dr Chris Dare along the border between

4.3 MANAGEMENT OBJECTIVES

These objectives have been directly informed by the opportunities and constraints identified in this report, which in turn inform the management policies. The main objectives are as follows:

- To conserve the wetland and river environment through sound management principles.
- To protect and enhance species diversity.
- To investigate the possibility of replacing the canalised section of the canal and restoring the old Liesbeek River course.
- To ensure that any alterations to river courses do not impact negatively on the natural environment.
- To manage the area as open space for the enjoyment and recreation of all members of the community.
- To maintain and where feasible, upgrade existing recreation facilities and amenities.
- To address the issue of security in a practical, cost effective way.
- To address the issues of access and use, especially the management of access and use in more ecologically sensitive areas to ensure that avifauna and fauna are not unduly disturbed, as well as making areas accessible for public use where appropriate.
- To ensure that uses adjacent to the Park are compatible with Council-owned natura areas, and to ensure that the Park benefits from the granting of land use rights on lanc adjacent to or in close proximity to Council-owned land within the Park.
- To assist in financing the upgrading, rehabilitation and maintenance of the area and to direct the way in which this investment is made, in order to achieve the greatest benefit with the smallest investment.
- To facilitate scientific research and environmental education.
- For all parties, including Council, interest groups and landowners to act jointly in the management of the Park.
- To develop effective consultation procedures and to ensure that interested and affected parties have an opportunity to participate in Council's decision-making on an ongoing basis.
- To contribute towards social upliftment in maintenance and management activities.

4.4 MANAGEMENT POLICIES

In order to fulfil the objectives, a number of management actions have been identified. These have been ordered into eight sections:

Raapenberg and the Valkenberg Hospital needs to be rehabilitated.

Eutrophic conditions and the absence of natural grazers cause the reedbeds (*Typha capensis* and *Phragmites australis*) to spread and therefore artificial management of these reedbeds is required. This may include controlled burning and/or manual removal.

4.4.2 Management of Recreation Facilities

Actions in this section should fulfill the following objectives:

- *Manage the area as an open space for the enjoyment and recreation of all members of the community.*
- *Maintain and where feasible and/or desirable, upgrade existing recreation facilities and amenities.*
- *Manage recreation facilities in a way that recognises everyone's right and ability to use and enjoy the facilities, while minimising the impacts on natural habitats.*

Figure 14 illustrates the Types of Open Spaces proposed for the Park and for which the following management actions are outlined.

The actions are as follows:

Active Recreation and Sports Facilities
The existing sports facilities, Malta Park, Hartleyvale and the golf driving range, should be managed in accordance with the City's Sports Policy. Any rationalisation of sports facilities in the future should take cognisance of the natural areas and the broader Urban Park initiatives, and should take place in consultation with the management body.

Passive Recreation Areas
The recreational amenities in the passive recreation areas (informal open space areas) should be improved in the following areas:

- Eastern and Western edges of Liesbeek River (south of the canal). This area could be used more frequently for picnicking, walking and jogging, and could provide a play area for children. Benches, play lots and regularly serviced refuse bins should be provided, pedestrian paths/cycle tracks should be established, and shade trees planted.
- Eastern edge of the Black River. This area could be used for properly monitored braaiing and picnicking. Benches, pedestrian paths, regularly serviced bins, braai areas and public toilets should be provided, and shade trees planted. Signs prohibiting bathing in the river should be erected.
- Western edge of Valkenberg East overlooking the Pallotti wetlands and Table Mountain. This area could be used more frequently for picnicking and could provide a play area for children. Benches, a play lot and regularly serviced bins, and public toilets should be provided, and shade trees planted.
- Western edge of the Liesbeek River along the old canal. Should this old river course be

restored, this area should also be provided with recreational facilities, such as a joggers path, benches and regularly serviced refuse bins.

Mowing of lawns along Liesbeek Parkway, Malta Road and along the western side of the Black River Parkway (traveling northwards). Investigate the feasibility of replacing kikuyu (*Pennisetum clandestinum*) with buffalo grass (*Stenotaphrum secundatum*).

Buffer Areas (areas adjacent the wetlands)
Hides should be erected adjacent to Pallotti and Raapenberg wetlands. Methods should be explored as to how and out of which material these birdhides could be constructed to prevent theft and vandalizing eg. Not to be constructed out of materials that are too valuable. Details regarding the position, structure and materials should be obtained from the Cape Bird Club and Council's nature conservation officers. Construction of hides should only be undertaken if the area can be monitored/managed on a continual basis.

General
A litter and graffiti clearing/abatement programme, including both active and passive recreation areas as well as rivers and wetlands, should be formulated. The Cityof Cape Town's Stormwater Management Branch has recently completed a strategy to deal with litter in watercourses and the City's Solid Waste Directorate is dealing with illegal dumping with its Waste Wise Project. These initiatives will serve to address issues of enforcing measures to counter the litter problem.

Maintenance of recreation areas should be in compliance with the Practitioner's Manual for Urban River Maintenance and Procedures to Facilitate Compliance with the EIA Regulations prepared by the Cape Metropolitan Administration of the City of Cape Town. Alternative methods of river cleaning, which have less impact on the natural areas, should be explored.

4.4.3 Management of Access, Uses and Security

Actions in this section should fulfil the following objectives:

- *Address the issue of access and use, in particular managing access and use in more ecologically sensitive areas.*
- *Make areas accessible for public use where appropriate.*
- *Address the issue of security.*

The actions are as follows:

Access
Wilderness areas of Raapenberg and Pallotti wetlands should remain inaccessible to the general public to encourage breeding of birds. Only limited access, on established paths should be allowed for maintenance or education purposes.

Access within the buffer strips around wilderness areas should be design-driven. Access should be restricted to designated paths and bird hides. A buffer area of 150 m should be maintained on the eastern side of the Pallotti wetlands.

Access to active recreation areas should be limited to lease applications, while access to passive

recreation areas should be unlimited. Pedestrian routes identified in the SDF require further assessment in terms of sensitivity and need, prior to construction. Should paths be considered necessary, natural material compatible with local environmental conditions should be used in the construction and upgrading of footpaths.

Vehicular access should only be permitted along existing roads. Access along the gravel road at Raapenberg North should be prohibited, with the exception of authorized commercial uses and service vehicles required for river maintenance operations.

Bicycles and horse riding should be restricted to existing vehicular access routes. Should additional paths be proposed in the future, these must be assessed in terms of sensitivity and need, prior to construction.

Uses
The buffer areas should be used for walking and bird watching. Passive recreation areas can be used for a range of uses, including picnicking, walking, jogging, cycling and horse riding. Boating and fishing along the Liesbeek River should be explored.

Pets should only be permitted in passive and active recreation areas. No access for pets should be permitted within the wetland areas.

Possibilities of urban agriculture, growing of medicinal or indigenous plants and aquatic weed harvesting should be explored in passive recreation areas, and possibly sections of the buffer area east of the Pallotti wetlands. This would need further assessment.

Security
The most effective form of security would be to have an on-site manager/conservation officer. This will enhance the safety of users and provide security for improvements to the area. Cooperation with the local police force and residents associations should be established to ensure a security presence in the area. The possibility of community safety patrols should be considered. Law Enforcement divisions of the City should patrol the area, ideally on horseback.

Low branches and trees along existing paths, that could create hiding places for undesirable elements, should be cleared. The issue of reduced security around public toilets should be addressed and mechanisms to prevent any serious security problems should be put in place by the management body. Lighting, signage, public telephones and security cameras should be placed at strategic points and properly maintained, to enhance security.

4.4.4 Management of Development Proposals

The SDF makes certain proposals in terms of planning and urban design for the Park. Importantly, the role of the SDF is to give consistent direction to the private sector and public decision-makers.

Actions in this section should fulfil the following objectives:

- *Ensure that uses adjacent the Park are compatible with the Council-owned natural areas.*
- *Ensure that the Park benefits from the granting of land-use rights on land adjacent to or in close proximity to Council-owned land within the Park.*

Development proposals must:

- be compatible with the natural areas in terms of land use, setbacks, heights, etc, as outlined in the SDF;
- be in accordance with other relevant laws, policies and guidelines, e.g. the Environment Conservation Act, National Environmental Management Act (NEMA), and the Development Control Guidelines in Flood Prone Areas as well as be accompanied by a stormwater plan which should be to the approval of the Sotrmwater Branch;
- contribute towards the upgrading and maintenance of the Park, financially, by SWEAT equity or both;
- ensure that historic views of the eastern slopes of Table Mountain and Devil's Peak are retained; and
- consider appropriate forms of 'green' construction technology.

During the construction phase of development, negative impacts on cultural-historic and natural areas should be prohibited. Where required by Council, an Environmental Management Plan and/or an independent Environmental Control Officer will be requested for the construction and/or operational phase. Ongoing public awareness programmes should be devised to ensure that any activities that impact on the natural areas should be reported to the City and management body.

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4.4.5 Relevant Legislation and Regulations

It is necessary for the purposes of this document to set out the relevant legislation and regulations, which will inform development proposals and other practices in the study area. The applicable legislation and regulations are however not limited to those listed below. When other relevant laws and regulations come into existence, they will also apply.

4.4.5.1 National and Provincial Legislation

The national and provincial legislation sets out the overarching principles for planning and development. These principles permeate into planning practices of local authorities to which certain powers have been devolved. Its relevance is of utmost importance and should be consulted if advised to do so. The following legislature concentrates on different facets of the development process. Its areas of focus are also listed.

- **National Building Regulations and Building Standards Act 103 of 1977**

The act sets out minimum standards for building work as well as the administrative framework in which it should take place.

- **National Heritage Resources Act 25 of 1999**

The main aim of the act is to introduce an integrated system for the management of our heritage resources, to promote sound management at all levels, as well as to empower society to nurture

and conserve their heritage resources for the benefit of future generations. Heritage resources may include buildings of historic significance, archaeological sites, places that mark pivotal moments in history of the country, and cultural landscapes in the form of historic places and accompanying groves of trees.

- **National Water Act 36 of 1998**

The National Water Act provides for reform of the law relating to water resources, including rivers and wetlands. This law will have specific pertinence to the Park, which is centred around the open spaces and water resources of the Liesbeek and Black Rivers and associated wetlands.

- **Environment Conservation Act 73 of 1989**

The main aim of the Environment Conservation Act is to provide for the effective protection and controlled utilisation of the environment and related matters. It lists several activities, which may have the potential to impact upon the environment, that require an impact assessment. It also prescribes a procedure to be followed during such an assessment.

- **National Environmental Management Act (NEMA) 107 of 1998**

It is aimed primarily to provide co-operative environmental governance by establishing: principles for decision-making on matters affecting the environment; institutions that will promote co-operative governance; and procedures for co-ordinating environmental functions exercised by government. Central to this aim is the drafting of Environmental Co-operation Agreements.

- **Conservation of Agricultural Resources Act 43 of 1983**

The act is aimed at providing for control over the utilisation of our natural resources in order to promote the conservation of soil, water resources and vegetation. It also makes provision for the combatting of weeds and invasive alien plants and matters related thereto.

- **Land Use Planning Ordinance 15 of 1985**

This ordinance in essence regulates land use planning. It sets out procedures for rezonings, subdivisions, structure plans and zoning schemes.

- **Development Facilitation Act 67 of 1995**

The act lays down general principles and procedures governing land development. It has not yet been adopted by the Western Cape Province, but its principles have been incorporated in the Western Cape Planning and Development Act.

- **Draft Western Cape Planning and Development Act 7 of 1998**

This act, which has not been implemented yet, serves to consolidate legislation in the Province pertaining to provincial and regional planning and development into one law. One of its main objectives is to provide principles and lay down policies, guidelines and parameters for planning and sustainable development, including environmental protection.

4.4.5.2 Zoning Scheme Regulations and By-laws

- **Scheme regulations of the City**

These scheme regulations set out permitted uses within certain use zones and act as a tool to control practices within these zones. Please note that the Cape Town Zoning Scheme regulations will eventually be replaced by the Integrated Zoning Scheme of the City. The relevant scheme should therefore be applicable.

- **Building By-law**

The building by-law sets out minimum standards for building work in the municipal area, e.g. maximum heights of walls in residential areas.

- **Signage By-law**

This by-law regulates outdoor advertising in a manner, which is sensitive to environmental quality.

4.4.6 Management of Services

Actions in this section should fulfil the following objective:

To ensure that services upgrades do not impact negatively on the natural or cultural environment, as well as to promote upgrades where necessary and where it does not have negative impacts on the environment.

Financial contrbitions or levies should be charged from prospective developers should any upgrading to services is necessary. This arrangement is further explored in Section 5 of this report.

The actions are as follows:

Parking areas should be maintained to ensure that there is sufficient capacity for future development. In maintaining and upgrading the parking areas, natural materials compatible with local environmental conditions should be used.

Services required for any future development must not negatively impact on the adjacent natural areas. Eco-friendly alternatives should be considered, such as alternative energy sources. Should the natural environment be negatively impacted, the area must be rehabilitated to Council's satisfaction.

4.4.7 Management of Human Resources

Actions in this section should fulfil the following objective:

Contribute towards social upliftment in maintenance and management activities.

The actions are as follows:

In the formulation of indigenous planting, alien eradication and litter clearing programmes, and the

construction of recreational facilities, methods that contribute towards social upliftment and skills transfer should be considered, where appropriate.

Where possible, management should be undertaken in co-operation with current and future neighbouring landowners and tenants. The option of sweat equity should be considered.

4.4.8 Management of Research, Training and Monitoring

Actions in this section should fulfil the following objective:

Facilitate scientific research and environmental education.

The actions are as follows:

Allow only non-destructive data collection and research. The collection of representative plant and animal specimens by recognised research institutions should be by special permission of the management body and the WCNCB, where required.

Develop the study area as an educational resource. Thebuffer areas around wetlands should be accessible to educational institutions for educational purposes and research. Provide users with information and interpretive facilities, which promote an understanding of the environmental sensitivities of the site, as well as the natural, cultural and historic resources. These interpretive facilities should be designed appropriately especially with regard to their size, height and design.

Ensure that those employed to undertake activities in the area are educated onthe sensitivities of the site. Conduct environmental monitoring to assess the impacts of development and recreational activity on the ecological functioning of the area.

4.4.9 Management of Financing and Marketing

Actions in this section should fulfil the following objective:

To assist in financing the upgrading, rehabilitation and maintenance of the area.

The following action is proposed:

A range of options to finance the management of the natural areas should be explored. These should include:

- Developers pay financial contributions into a management fund for capital and ongoing maintenance.
- Tenants make a contribution through sweat equity.
- Funds raised from research and education.
- Membership fees.
- Raising funds through donor funding (including international bodies, such as UNESCO and WWF) and special events.

- Approaching business organisations to 'adopt' the Park as part of their environmental awareness programme.
- Local government budgetary provision.

SECTION 5: PROPOSED INSTITUTIONAL FRAMEWORK

5.1 INTRODUCTION

This section outlines the structure that will be adopted to manage the Park in the of the Council-owned land. Figure 15 depicts the broad Management Structure for the Park.

5.2 AN ASSOCIATION

On 8th May 2003 (Item PLAN 24/05/03) the Planning and Environment Portfolio Committee resolved to recommend that an Association to manage the Two Rivers Urban Park be established with the assistance of the City' Legal Directorate.

A non-profit organisation in the form of an association could serve as a key role player in the management of the Park. This non-profit organisation would be operational at the implementation stage of the Contextual Framework and Phase 1 Environmental Management Plan. The Association could also serve as the Advisory Board which the local authority is required to establish once an area has been declared a Local Authority Nature Reserve, in terms of Conservation Ordinance 19 of 1974.

It is proposed to establish the Association in the form of a fundraising body or Section 21 company, which would be a partnership between the local authority, key stakeholders, environmental interest groups and the local community. Its overall objective would be to assist in fulfilling the policies of the Contextual Framework and Phase 1 Environmental Management Plan, be a key role player in management agreements between authorities and other landowners in the broader Park area, and assist in financial arrangements for funding of the management area i.e. Council-owned land.

The Association would not in itself have decision-making powers, but would be an important steering body for implementing the Contextual and Phase 1 Management Plan. The Association could include officials from government departments, residents and ratepayers associations, property owners, environmental interest groups, scientific and academic stakeholders, funding groups, social groups and non-government organisations. Members of the Association would elect a Management Committee, representing the relevant interest groups to manage the Association. Council officials would also be represented on this committee.

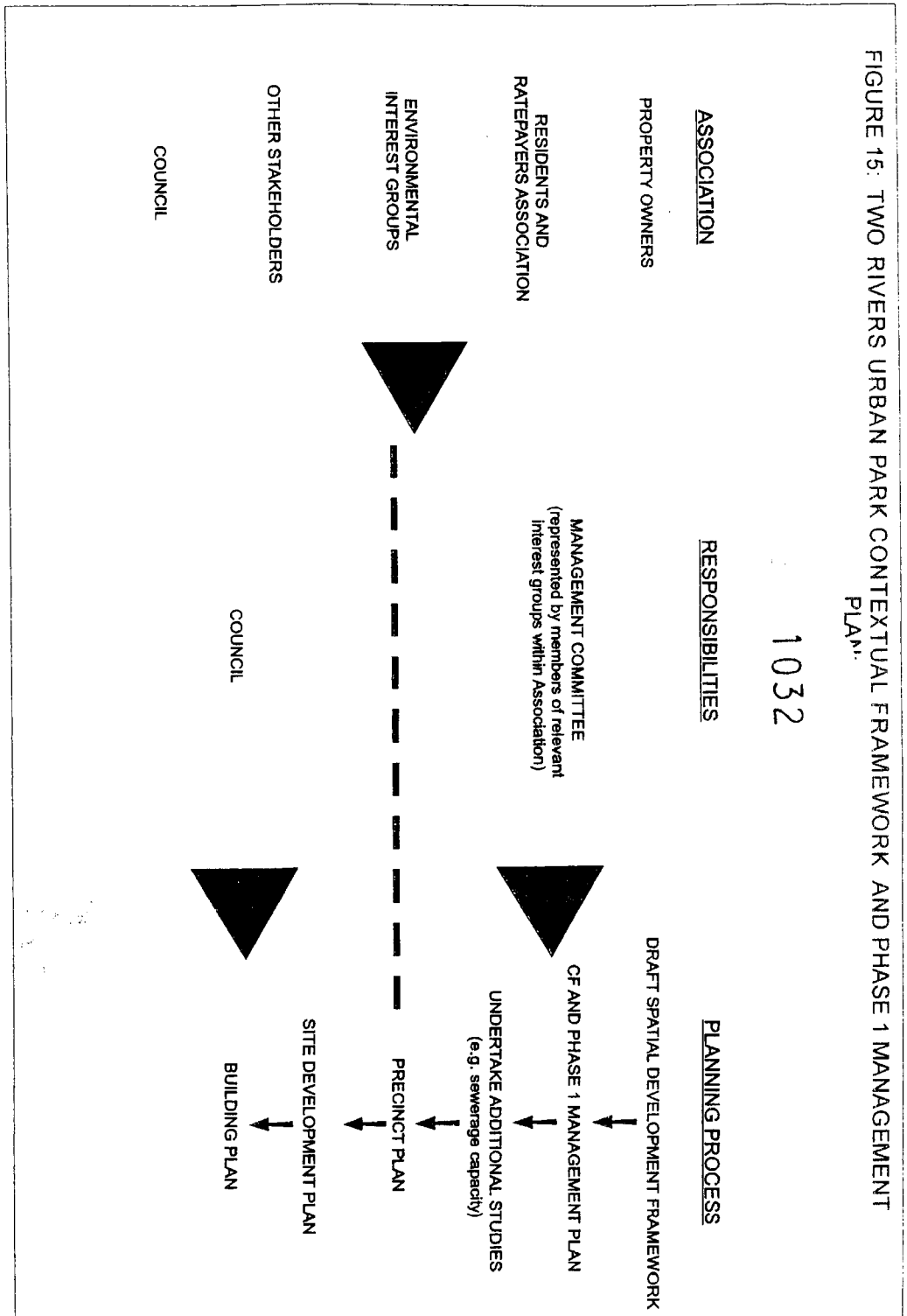
The initial task of the Association would be to draw up a constitution, which would be set up democratically to ensure all interests of the management areas are represented. This constitution would be set up by the members of the Association in collaboration with the City's Legal Advisor's office and would be a tool to bring order in the body as well as to dictate formal procedures, such as meetings. Examples draft constitution for the Association is attached as Annexure 4 to this report.

To seek funds the Association would need to register itself as a non-profit organisation and acquire a fundraising number. To supplement the funds, levies and contributions could also be collected from property owners and developers.

Investigate possible funding from the following sources:

- National State funding assistance
- Provincial Government contributory funding
- Overseas donor funding
- Bond issues by Council
- Multi-national corporate contributions

FIGURE 15: TWO RIVERS URBAN PARK CONTEXTUAL FRAMEWORK AND PHASE 1 MANAGEMENT PLAN



- Commercial levy system for developed areas
- Precinct by precinct funding approach
- Matching costs to direct benefits

Section 4.4.9 further recommends actions to for the management of financial and marketing arrangements of the Council-owned land.

5.5 THE WAY FORWARD

This document provides broad guidelines regarding appropriate land uses within and on the edges of the Park, as well as urban design guidelines. However, any development will require a land use application in terms of the Land Use Planning Ordinance (LUPO) to be submitted to Council. These would need to include detailed precinct plans as well as detailed site development plans as per the package of plans approach. Additional studies may need toaccompany these applications, e.g. a Traffic Impact Assessment, a sewerage capacity study, an Environmental Impact Assessment, Stormwater Management Plan or Heritage Impact Assessment.

As the way forward the Phase Two Environmental Management Plan should be undertaken which will identify and prioiritise projects for implementation. At the same time the Association willl be established and its functions and a fundraising body as well as being party to the conclusion of co-operative agreements with developers may commence.

Further investigations and detailed studies of the capacity of the services and the establishment of a financial vehicle to address future upgrading eg. charging levies , should also be executed.

Recommendation from Portfolio Committee to Executive Mayor:
(Item PLAN 24/05/03: 8th May 2003

On 8th May 2003 (Item PLAN 24/05/03) the Planning and Environment Portfolio Committee resolved to recommend that

(a) the Two Rivers Urban Park Contextual Framework and Phase One Environmental Management Plan be adopted.

(b) that an Association to manage the Two Rivers Urban Park be established with the assistance of the City's Legal Directorate.

(c) that development levies be imposed for development requiring new development rights.

(d) that the floodline information for the 1:50 and 1:100 year floodline in terms of the Salt River Catchment Floodline Study (2003) be included in the above contextual framework and be applied in the assessment of new developments together with the Development Control Guidelines for Floodprone areas.

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ANNEXURE 1 TWO RIVERS URBAN PARK BASELINE HERITAGE STUDY

TWO RIVERS URBAN PARK

BASELINE HERITAGE STUDY

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DRAFT REPORT

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May 2002

TWO RIVERS URBAN PARK
BASELINE HERITAGE STUDY
MAY 2002

1. INTRODUCTION

1.1 Background to the Study

The City of Cape Town has been preparing a spatial development framework (SDF) for the area defined as the Two Rivers Urban Park. The main objectives of the SDF are to conserve the ecologically and culturally sensitive areas and to provide landowners and prospective developers with guidance for the nature and scale of future development.

This baseline heritage study draws on existing documentation held by the City of Cape Town and the South African Heritage Resources Agency (SAHRA).

1.2 Terms of Reference

The Study team has been tasked with providing the City of Cape Town with maps which indicate on a provisional basis:

- The level and nature of sensitivity of different precincts in order to inform compatible land use options.
- Heritage values associated with the cultural landscape.

1.3 The Project Team

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1.4 Statement of Independence

This report must be seen as independent from the Two Rivers Urban Park SDF.

2. METHODOLOGY

It is common cause that there needs to be an integrated approach for implementing a workable heritage management system within the concept of an Integrated Environmental Management System (IEMS) and the Environmental Impact Assessment (EIA).

2.1 The Process

This study is formulated as a baseline study to inform the formulation of the SDF for the study area. It is not a formal Heritage Impact Assessment (HIA) required in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999). It should serve as a general basis for determining the appropriate scope of study for an EIA, HIA of planning and development proposals for the Two Rivers Urban Park.

2.2 Sources of Information

The baseline study has been informed by various sources of the documented developmental history of the study area. No primary research has been carried out. The process has included:

- Site inspections.
- Review of secondary historical research and public records.

2.3 Public Consultation

Time and budgetary constraints have prevented any public consultation. As the determination of heritage significance involves value judgements which should not be limited to heritage professionals only, this is a serious shortcoming. The values of the different individuals and communities attached to a place like the study area must be recorded in a future study. These values are frequently conflicting and contested and their resolution is fundamental to heritage management planning.

It is recommended that provision be made to present the findings of this baseline study to three target groupings for their input and comment.

2.3.1 Interested Parties e.g.:

- Cape Institute of Architects: Heritage Committee
- Simon van der Stel Foundation
- Vernacular Architecture Society of South Africa
- Professionals and Researchers
- Former staff and inhabitants of the various precincts
- Committees or groups with a strong association with the study area

2.3.2 Affected Parties e.g.:

- Provincial Departments e.g. Health, Education, Tourism, Agriculture, Arts and Culture, Sport.
- City of Cape Town
- Neighbouring landowners
- Current users

- Local residents / civic associations

2.3.3 Approval authorities e.g.:
- SAHRA
- DECAS

2.4 Assessment criteria

The heritage significance of the study area has been assessed at different scales. Consideration was also given to the physical fabric of the site, uses, associations and relationships. In addition, intrinsic, contextual, comparative and potential values were considered.

"Cultural significance" means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance (NHRA 1999).

Historical	Associated with an historic person or group. Associated with an historic event, use or activity. Illustrates an historical period.
Architectural	Significant to architectural or design history Important example of building type, style or period Possesses special features, fine details or workmanship Work of a major architect or builder
Environmental	Contributes to the character of the area Part of an important group of buildings or structures Landmark quality
Social	Associated with economic, social, religious activity Significant to public memory
Technical/ Scientific	Important to industrial, technological or engineering development New, rare or experimental techniques Important to archaeology, palaeontology

The following assessment criteria were developed by James Kerr (2000). They are useful in developing an understanding of the significance of a place in terms of its physical evidence, associational links and its sensory (non visual and visual) qualities.

- Ability for the physical evidence to demonstrate or contribute towards and understanding of a past design, style, period, technique, philosophy, belief, use or associated with an event or person/s.

The degree of significance of this physical evidence is determined by:

- age (how early)
- scarcity value (how rare)
- representational value (outstanding, important, typical)
- degree of intactness (original features, historical layering)
- fragility (physical condition and compatibility of use)

- Associational links with past event, persons and activities for which there is no remaining physical evidence.

  The degree of significance of this association is determined by the intimacy and duration of that associated and the intactness or evocative quality of a place and it's setting relative to the period of association.

- Possessing qualities that give a place character of its own, sense of continuity with the past or sense of orientation and structure within the landscape. This includes the visual and non-visual experience of the place. It encompasses the physical properties (scale, form, edges, materials, texture, focal points, views, orientation) of a place and it's setting. It also encompasses the sounds, smells or any other aspects affecting the experience of a place.

  The degree of significance of aesthetic or sense of place qualities in informed by the level of coherence of the landscape, the importance of the relationship of the place and it's setting, which reinforces the quality of both, and the level of evocative versus disruptive or intrusive qualities of contrasting landscape elements.

3. REVIEW OF RELEVANT STUDIES

The following studies have some relevance to this baseline study.

3.1 Black River Urban Park SDF. First draft March 1999.
Annexure C of this report provides a broad overview of the "built environment" and identifies the proclaimed Provincial Heritage sites (formerly national Monuments) and grades of the remaining buildings from grade one to grade two and what are referred to as "others".

It also identified the three sites of archaeological importance.

While this work is valuable it failed to place these individual buildings and ensembles into a cultural landscape context.

3.2 Culemborg – Black River Contextual Framework: Stage B Report: 1993
Larry Aberman and Associates. This report did examine its study area in terms of "cultural landscape" layers e.g. the rivers, early occupation and so on.

Although the study area was much broader than that of the Two Rivers Urban Park, it provided valuable insights and useful references to maps, general plans and literature.

4. THE EVOLVING CULTURAL LANDSCAPE OF THE TWO RIVERS URBAN PARK

In this summary, the gradual transformation of the cultural landscape has been plotted from its assumed primeval nature to the present.

4.1 The primeval landscape.

The Black and Liesbeek Rivers flowed into the Salt River and, together with the Diep River from the north, created an extensive estuarine system of marshes around Paarden Eiland.

Even in the 1865 map of the Peninsula Paarden Eiland is shown as a true island with rivers entering the sea to the north and the south; with a lagoon-like salt river. Geological evidence shows that these river mouths constantly changed, shifting up and down the Table Bay coastline.

The marshes extended well inland and it has been suggested that they formed part of a broader wetland system stretching from Rietvlei in the north along the foot of the mountain chain and across the Flats to Zeekoevlei and Sandvlei in the south.

Hippos and other large animals, like elephant and Cape buffalo, would have ensured that there were open channels and pools amongst the reedbeds and palmiet. The banks would have been varied with pastures for herds of grazing antelope and zebra as well as sand plain fynbos dominated by restios, riverine scrub and woodland, particularly near the mountain. Rondevlei today gives some indication of what parts of the landscape may have looked like. The biodiversity of the study area is inestimable.

For millennia, small groups of hunter-gatherers followed the seasonal round in this landscape, collecting plants and seafood, catching wild birds and animals. They found shelter in caves and rock formations and constructed windbreaks and waterproof "skerms" in more open areas. (Boonzaaier et al. 1996)

This landscape began to change about 2000 years ago.

4.2 The pre-colonial landscape.

Nomadic pastoralists started bringing their herds of sheep and cattle to the Peninsula each season. These people undoubtedly used fire to extend the pastures but the grasses were only able to support the herds for short periods. Each year, as the grazing dried out and disappeared, they moved back into the interior or up the coast to the north west. The movement of large herds of domestic animals across the landscape created broad trails where once only narrow paths existed.

It has been suggested that these became the basis of the road system still used in part today (Mossop 1926). It is probable that this animal movement had a significant impact on the Peninsula ecology and on the study area in particular. The pastoralists were also hunters and used dogs to run down game.

The hunter-gatherers and pastoralists have left some archaeological evidence of their existence elsewhere in the Peninsula, but no surveys have been conducted in the study area.

4.3 Dutch colonial period - VOC

Further and much more dramatic change occurred once the Dutch East India Company (VOC) had established their refreshment station in Table Valley.

The early Dutch commanders were required to remain on friendly terms with the indigenous tribes in order to barter cattle for use by the settlement and the ships bound for the east or back home to Europe.

The pastoralists were progressively excluded from grazing their herds along the Liesbeek River until finally in 1657 freehold grants were given to settlers, the Free Burghers. This effectively ended Gorinhauqua use of the grazing. Between 1657 and 1660, palisades were constructed along the Liesbeek and Salt Rivers and the wild almond hedge was planted extending from the Salt River to the hill at Wynberg; where extensive sections still remain.

The settlers grew fruit and vegetables and planted wheat between the Liesbeek River and the main route to the south, the Wagenpad na t'Bos Their main activity though was stock rearing like their predecessors. A group of farms developed in the vicinity of the present day Coornhoop known as "De Hollandse thuijn;" some remnants survive from this period, the dovecote of Coornhoop itself, the homestead from the farm Ouderneming now known as Wrensch House, the Westoc homestead, all imbedded in 19c and 20c suburban development.

Between Coornhoop and the sea was Jan van Riebeek's own farm Uitwyk, later known as Malta farm. The homestead on this farm survived well into the 20c. The farm Vaarschedrift lay between Malta farm and the Salt River and its homestead was also only demolished in the 20c by the Union

Government. It was a cattle drift between the Table Valley settlement and the interior.

There were several farms between the two rivers, Valkenberg, Bloemendal and Vredenberg. There was little development to the east of the Black River which remained a wilderness of marshland and shifting sands and almost no grants of land were made. A series of windmills were however erected, the Oude and Niewe Molen, all built between 1780 and 1800, towards the end of the VOC period. The road network was extended with a number of crossing points over the rivers. Besides the Oude and Niewe Molen complexes the Valkenberg farmstead is probably the most significant remaining element from the VOC period. The extensive pastures and fields of grain have almost all disappeared under suburban development. The open nature of the landscape still creates a sense of the VOC rural landscape.

4.4 British Colonial Period

From the beginning of the 19c residential, commercial and industrial development began to encroach on the agricultural landscape. Land within the study area itself was largely unaffected by these processes and farming continued at Malta farm, Westoc, Coornhoop and Valkenberg. Dairy farming to supply Cape Town with milk grew in significance but grain, fruit and vegetable production continued throughout most of the 19c.

Road networks grew significantly and so did the 19c railway network. At the beginning of the 19c there were two main routes; the Main Road to the south and that to the north; today's Voortrekker Road. Residential subdivision, commercial and industrial development led to the development of a more complex road system but this still left the study area largely intact. The Mostert family who owned a number of farms in the area acquired Valkenberg in the early 19c and developed the property. It is suggested that the homestead dates from this era although probably built on 19c fabric (Fransen and Cook 1965).

The landscape character of the study area was distinctively agricultural, a patchwork of pastures for dairy cows who could drink at the river, plots of vegetables and orchards, fields of winter wheat and screens of poplars to protect them from the winds.

4.5 Institutional Period

Although the study area continued to remain an agricultural area well into the 20c it began to take on an increasingly institutional role. In 1827 a portion of Valkenberg was sold for the establishment of the Royal Observatory. It was designed to relay a time signal to the Time Ball Tower (now part of the V & A Waterfront).

A large complex was then developed around the Observatory including subsidiary residential and administrative buildings. From 1881 the institutional role of the study area grew in emphasis although the agricultural character was largely retained. Valkenberg was bought by the Cape Colonial government with money from the Porter Bequest Fund for the establishment of the Cape Colony's first reformatory. The Valkenberg manor house and outbuildings were used to house staff and young offenders. The farming activity was continued at the reformatory, possibly on a more intensive basis than when Valkenberg was in private ownership. The Porter Reformatory strove to be largely self-sufficient with farm work, the main training emphasis of the system.

The reformatory though was moved to Tokai in 1888 and the Valkenberg complex, which had been adapted for reformatory use was taken over by the Cape Colonial government as a replacement for the Robben Island lunatic asylum which was closed down. Again the authorities used the estate for farming primarily as a therapeutic activity. This carried on uı until the 1950's when farming activities were phased out.

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On the west bank of the Liesbeek River, the smaller farms in private ownership were gradually reduced in size through residential subdivision. Land along the river itself continued to be used for farming well into the 20c. This was mainly dairying. The old silo beside the river near Durban Road is a 20c relic of Louw's Dairy.

In 1899 a new mental hospital complex was developed and the old manor house at Valkenberg was once again used as a residential building for staff.

In 1901 the Cape Colonial government purchased the Niewe Molen complex with its mill Alexandra; and developed a military hospital on the site. Maitland was an important military camp at this time.

The complex was then converted for use as a hospital for the chronically ill mental patients and became known as the Alexandra Institution. Additional buildings were added and form and fine grouping.

The Oude Molen complex was also taken over for institutional use, first as part of the Porter Reformatory and then Valkenberg Hospital. It became the so-called Native Hospital.

The abandonment of farming by the authorities left large grassed open spaces, the former pasturage; but along the Liesbeek River the neglect has led to the fairly rapid development of woodland which is now an entirely new landscape element; which screens the Valkenberg manor house from view.

The Roman Catholic Community acquired land to the south of Oude Molen and established the St. Joseph's Sanatorium early in the 20c close to Raapenberg Road. This grew and eventually became known as the Vincent Palotti Hospital.

Maitland Garden Village was developed in the 1930's coupled to the development of Pinelands on Ebenezer Howard's planning principles. Apart from this intrusion most of the study area was unaffected by the urbanisation processes taking place around it on all fronts. It was however dramatically affected by the growing city's transportation requirements in the second half of the 20c.

4.6 Transportation

After World War II the City Council embarked on an ambitious freeway development programme and constructed Settlers Way, the Black River Parkway and Liesbeek Parkway during the 1950's and 1960's. This system cut through old historical links and spatial relationships. Valkenberg Road, which provided access to the hospital from Mowbray village in the south was closed. After 1959 access was only via Observatory Bridge. The road and bridge across the Black River from Valkenberg to Oude Molen was demolished and replaced with the bridge over the Black River Parkway.

The Black and Liesbeek Rivers were canalised following major flooding in the winters of 1941 and 1943. This began the transformation of the riverine landscape. The road construction programme led to the development of the landscape we know today. Large areas of wetland were filled in along the Black River canal to accommodate the Settlers Way – Black River Parkway interchange.

The development of the railway system had by the end of the 19c already led to the destruction of the Salt River marshes and the Varsche Vlei. By the end of the 20c the once extensive estuarine wetland was reduced to a few remnant reed beds near the Royal Observatory and along the Black River canal.

The Liesbeek has also been transformed with the canalisation and the development of sports fields where there were once water meadows.

5. PRELIMINARY ASSESSMENT OF SIGNIFICANCE

The criteria used is assessing significance are outlined in Section 2.4 of this report. The categories of significance referred to below have been drawn from Section 3 of the National Heritage Resources Act. The heritage resources identified have not been graded.

5.1 Places, buildings, structures and equipment of cultural significance

Statement of Significance: 5.1 Places, buildings, structures and equipment of cultural significance.
The Two Rivers Urban Park landscape has great cultural significance. It has historical, social, aesthetic, architectural, scientific and environmental value. It contributes to an understanding of past attitudes, beliefs, uses, events, persons, periods, techniques and design. It has associational links with past events, persons, uses, community memory identity and oral history. Furthermore it possesses a strong sense of place. The cultural significance is expressed at several scales: the overall landscape, precinct site and object scale.

The inherited cultural landscape of the Two Rivers Urban Park has escalated from gradual change over millennia towards much rapid change over the last three hundred years and particularly over the last century. Each period has left its mark in the form of paths, roads, planting patterns, drainage and irrigation furrows, and structures ranging from terracing to walls, dams and buildings.

The overall landscape is a complex composite of natural cultivated and built landscape elements. It is a cultural landscape, one transformed by thousands of years of settlement history. This landscape expresses both artistic and innovative qualities in terms of its natural setting, architecture and patterns of planting.

It also has narrative qualities, possessing a rich layering of physical evidence brought alive by the oral history of the people who worked, lived or who were committed to the hospitals in the TRUP.

Different historical narratives are woven together to create a story o pioneering and philanthropy, social reform and identity, self-suffici farming and institutionalisation.

It possesses a number of distinctive and inter-related precincts which serve to clearly demonstrate or are strongly associated with its various historical roles and uses as a place for indigenous hunter-gatherers, grazing grounds for herders, colonial farms, scientific research station, reformatory and hospitals.

Within each precinct are groupings of buildings, patterns of planting and routes, which have intrinsic social aesthetic and scientific significance and also contextual significance in terms of their contribution to an

understanding of the TRUP's inherited landscape qualities, its history and associated memory.

5.2 Historical settlements and townscapes

Statement of significance: 5.2 Historical settlements and townscapes

The Valkenberg farmstead, the Observatory, the Valkenberg Hospital, Alexandra Institution, Maitland Garden Village and Oude Molen complex represent distinctive settlement forms:

- The formal layout of the Valkenberg farmstead.
- The formal layout of the various institutions.
- The townscape of Maitland Garden Village.

The distinctive character of each of these settlements relates to the various roles and uses of the TRUP during the course of its history.

- Rural farm werf.
- Institutional facility.
- Village.

The TRUP possesses a layering of history spanning more than 200 years. There are a number of settlement areas within the TRUP which are of particular heritage significance. They are the Valkenberg farmstead, the Valkenberg hospital complex, and the Observatory complex, the Alexandra Institution, Maitland Garden Village and the Oude Molen complex. They represent archetypal settlement forms in terms of layout, response to topography and architecture.

Valkenberg Farmstead
The centrepiece of this extensive complex, the manor house is said to date from about 1830 (Fransen and Cook) although they contend that it probably incorporates fabric dating from the 18c. The various other elements were modified and extended by the Mostert family and then by the reformatory and hospital authorities. The manor house and outbuildings have been recently renovated and function as part of the Courtyard Hotel complex. This new hotel was controversially developed and is an unfortunate visual intrusion. The farmstead is the only remaining one on the Liesbeek River still retaining a sense of its agricultural past. All the others are now imbedded in suburban fabric or have been demolished. It is a proclaimed Provincial Heritage Site.

The Valkenberg Hospital
This complex was established in 1899 and was the first mental asylum designed according to modern principles. The symmetrical layout centred on the administrative block with inter-linking courtyards and buildings is typical of 19c institutional complexes, demonstrating the strong hierarchical principles of control. The original 1899 complex is a proclaimed Provincial Heritage Site. Buildings were incrementally added to the complex throughout the 20c. They continued to be sited in an octagonal and coherent pattern in relation to the core of the complex.

The Observatory (The South African Astronomical Observatory)
The complex is centred around the original 1827 observatory building, which commands a dominating position on the small hill. The layout unlike that of the hospital is informal and buildings are loosely arranged in a park-like setting.

Alexandra Institution (Alexandra Care and Rehabilitation Centre).
As with Valkenberg Hospital a formal pattern of development has taken place on this site. It however incorporates the original 18c mill, which is a proclaimed Provincial Heritage Site. There are important planting patterns on the site, notably the avenue of palms.

Maitland Garden Village
This township follows planning conventions developed by Ebenezer Howard and others and is almost unaltered since its construction in the 1920's. This makes its unique in SA's planning and architectural history.

The Oude Molen complex
A formal layout was developed on this site following the institutional norm of the early 20c. The complex does however incorporate 18c fabric.

5.3 Landscape and natural features of cultural significance

Statement of significance: 5.3 Landscape and natural features of cult significance

The evolution of the cultural landscape of the TRUP has been shaped by its natural resources including water, soils and climate. While much of the land and riverine landscape is degraded it retains the potential to become agriculturally productive and ecologically functional.

In Section 4 of this report the transformation of the landscape was described.

The institutional use of the TRUP has ensured that this vast area has not been urbanised like most of the land along the Black and Liesbeek Rivers. Much of the land was agriculturally productive until about the 1950's and still retains this potential. The re-introduction of agriculture to parts of the TRUP could strengthen its cultural significance.

The degradation of the riverine environment is well documented, as are measures to make the river systems more functional ecologically. These include reshaping, re-vegetation, alien plant removal and improvement of water quality.

5.4 Potential to yield information that will contribute to an understanding of SA's natural or cultural places

Statement of significance: 5.4 Potential to yield information that will contribute to an understanding of SA's natural or cultural places
The TRUP possesses a rich layering of historical evidence that has the potential to contribute to a greater understanding and interpretation of the significance of its cultural landscape and places associated with its history.

The only archaeological survey undertaken to date within the TRUP was related to the renovation of the Valkenberg farmstead.

There are a number of sites which have been identified as having the potential to yield historical evidence relating to the pre-colonial, colonial and institutional periods (physical, documentary and oral).

The Niewe Molen Site
The mill is surrounded by the Alexandra Institution buildings and it is likely that archaeological material may have been lost or disturbed.

The Oude Molen Site
While the mill has been lost, buildings thought to be associated with the mill, the miller's house and grain store, still exist. Land in the vicinity of the complex is claimed to be of cultural significance to the Cape Cultural Heritage Association who represents Khoi-san interests. This potential has not been investigated.

Vaarschedrift Farm
There are no visible remains of this complex. It began as a VOC post protecting the drift or crossing place of the river and could be of enormous archaeological interest.

5.5 Geological sites of scientific or cultural significance

Statement of significance: 5.5 Geological sites of scientific or cultural significance
There are no known sites of significance with the study area.

5.6 Sites related to the history of slavery

Statement of significance: 5.6 Sites related to the history of slavery
The Valkenberg farmstead and the two mill sites date from the end of the 18c when slave labour no doubt played an important role in the transformation of the TRUP landscape into a productive agricultural landscape. Further documentary and archaeological research has the potential to yield more information on the history of slavery on the property.

The Free burghers used VOC slave labour and owned slaves of their own. They undoubtedly also would have made use of indigenous cattle keepers dispossessed of their own herds and co-erced into surviving as servants.

Slavery effectively ended in 1838 once the so-called "apprenticeship" period was over, but many freed slaves remained trapped in servitude due to the Vagrancy Acts and stayed on as wage labourers on the farms. The legacy of centuries of slavery at the Cape is still strong among local communities; but its negative connotations have recently become transformed more into a source of pride than shame.

5.7 Archaeological Sites

Statement of significance: 5.7 Archaeological sites
The archaeological significance of the TRUP is at present only partly known (Valkenberg farmstead). However a number of archaeologically sensitive sites have been identified.

In Section 5.4 the sites with potential to yield information were described.

5.8 Graves and burial grounds

Statement of significance: 5.8 Graves and burial grounds
The graveyard forms part of Valkenberg farmstead and is a typical family graveyard associated with a farm. There are no other known sites within the study area, but further research may lead to the discovery of others.

5.9 Strong or special association with the life or work of a person, group or organisation of importance in the history of SA.

Statement of significance: 5.9 Strong or special association with the life or work of a person, group or organisation of importance in the history of SA.
Rev. Fearon Fellowes founded the Royal Observatory in 1827, which at that time was the most important observatory in the southern hemisphere studying the southern skies. He was succeeded by the Astronomer Royal, Sir John Herschel, who undertook important research work at the Cape. Sir William Porter is associated with Valkenberg. His Porter Bequest Fund purchased Valkenberg.

These two men were important in the development of scientific astronomy at the Cape and in SA.

Sir William Porter was the Attorney General of the Cape Colonial government from 1839 to 1865. He died in 1880 in the United Kingdom leaving an enormous sum of money (£20 000) towards "the establishment and maintenance of reformatories for young offenders sentenced by the Colonial Courts."

In terms of his will Valkenberg was purchased in 1881 and the farmstead was adapted into a reformatory for offenders under 16 years. In 1890 as a result of objection by local farmers to the establishment of a lunatic asylum on the Tokai Estate, which had been purchased by the Colonial government, the reformatory was moved to Tokai and Valkenberg became the site of the lunatic asylum.

Porter's will therefore saved this property from probable urbanisation.

5.10 Importance in demonstrating a high degree of creative or technical achievements at a particular period.

Statement of significance: 5.10 Importance in demonstrating a high degree of creative or technical achievements at a particular period
The Valkenberg manor house is an important example of rural vernacular architecture dating from the early 19c. It has an impressive relationship to the river and Devil's Peak. The surviving mill, Niewe Molen, although no machinery remains was technically significant at the end of the 19c. Its bullet shaped tower is unusual. The Valkenberg Hospital was the first mental hospital designed according to "modern" principles in SA.

The Valkenberg Manor House
This has been discussed in Section 5.2

The Niewe Molen
This was discussed in Section 5.2. It is worth noting that the series ..nills established in this general area at the end of the 18c were based on Dutch windmill technology. This was the most advanced in the world at the time; having grown out of the vast 17c drainage and land reclamation projects.

The Valkenberg Hospital
This was designed on the most modern principles of the late 19c when the health authorities were moving away from the prison conditions of institutions like Bedlam.

5.11 Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Statement of significance: 5.11 importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.
The TRUP possesses numerous aesthetic or sense of place qualities, which relates to its various historic uses and roles. It possesses a sense of history, which is expressed in some of the architecture and old trees. There is a strong institutional aesthetic associated with the various hospitals and the Observatory. The relatively vast open areas in a highly urbanised part of the city are of aesthetic significance.

The development of the TRUP landscape has been described in Section 4 of the report. Its visual qualities are experienced by motorists moving along

the road network and by workers and visitors to the various parts of the area.

5.12 Places to which oral traditions are attached and are associated with living heritage.

Statement of significance: 5.12 Places to which oral traditions are attached and are associated with living heritage
The various institutions within the TRUP have strong institutional memories arising from their uses over 100 years. Oral history research has the potential to yield further information relating to the lives of staff and patients, changing attitudes within the health administration as well as its role in the institutionalisation of social values and potential ideologies of the 20c.

Living heritage refers to the intangible aspects of inherited cultural tradition, oral history, performance, ritual and popular memory. These aspects have not been researched but, given the long history of the various institutions, this work could be expected to yield valuable insights.

5.13 Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Statement of significance: 5.13 Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
The Cape Cultural Heritage Association has claimed that land in the vicinity of the Oude Molen complex has significant cultural value for their members. This requires further research.

At present there is no physical or documentary evidence to support this claim nor is there any oral evidence to pinpoint sites within the study area of significance to the Khoi-san people the Association represents.

Further research would be suggested.

5.14 Places important in the community or pattern of South African history.

Statement of significance: 5.14 Places important in the community or pattern of South Africa's history.
The TRUP represents a microcosm of Cape history. It reflects the pattern of South Africa's social, architectural, political history spanning the pre-colonial, colonial, apartheid and more recent history. It strongly reflects changing attitudes to mental health in the health system, represented in physical fabric and probably in oral history associated with various institutions.

The layout, design and sequence of buildings forming the various institutions can be linked to decisions taken about security, care, supervision and control exercised over patients, increasing segregation, levels of mental health and race.

5.15 Movable objects of cultural significance.

Statement of significance: 5.15 Movable objects of cultural significance.
It is probable that thee are collections of movable objects related to the various institutions; equipment, instruments, machinery, artefacts, art objects and furniture. These have not been researched but would be of cultural significance.

Over the long history of the institution, objects of heritage would have been acquired, made and developed. These are of heritage significance and research should be undertaken to identify them for their conservation and curation.

5.16 Historical links between a place and other places in the region or South Africa.

Statement of significance: 5.16 Historical (as above)
The South African Astronomical Observatory is linked to the development of the modern observatory at Sutherland in the Karoo. The original observatory in the TRUP became largely obsolete as lighting levels in the city increased and created a "loom". The Observatory is still used as a research centre and for some observation.

6. RECOMMENDATIONS

The preliminary assessment of the heritage resources of the TRUP reflects the results of the limited research project. Unfortunately, time and budgetary constraints have prevented any public consultation.

This study should be seen as the beginning of a heritage management plan for the TRUP.

On the attached map, five heritage areas have been identified. Heritage Impact Assessments (HIA) should be mandatory within these areas for any physical intervention. Any detailed spatial planning should involve a Stage One HIA: Scoping Stage analysis as the fundamental design informant.

Before commencing with any interventions, the following heritage management steps should be considered:

6.1 Specialists be appointed to record the oral histories of the various institutions.
6.2 An inventory of movable objects be compiled.
6.3 Specialists be appointed to survey the building complexes and their archival history.
6.4 Specialists be appointed to survey the trees on the property, to map and record their status and health.
6.5 Archaeological Phase One Surveys to be commissioned for the sites identified in Section 5.7.
6.6 Information on the heritage resources of the TRUP should be presented to, and solicited from, the public.
6.7 Interpretive material should be assembled to reveal the heritage resources of the place.

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7.2 Maps

1685 Pieter Potter's General Plan of Cape Town showing the farms of the Liesbeek Valley.

1807 Leeb J. L. Military sketch of the ground near Rondebosch.

1827 Thompson's Plan of Cape Town and its environs.

1862 Snow's Municipal Survey.

1885 Boyle's Southern Suburbs of Cape Town.

1894 Richards' Map of Cape Town and its suburbs.

1934 Trigonometrical Survey: Cape Peninsula.

ANNEXURE 2 TRAFFIC IMPACT ASSESSMENT

TWO RIVERS URBAN PARK

TRAFFIC IMPACT ASSESSMENT

By

TheTransportation Planning Branch

Cape Town Administration

3 December 2001

1 INTRODUCTION

The Two Rivers Urban Park Site is a relatively undeveloped portion of land that is located between the suburbs of Observatory and Pinelands in the Cape Town Metropolitan Area as shown on Figure 1. The area is approximately 250 Ha in size and comprises sensitive ecological systems and habitats, extensive open space areas and significant institutions, historical buildings and cultural landscapes, providing an ideal space for the creation of an urban park.

Due to the historical importance and environmental sensitivity of the site, the City of Cape Town embarked on the process of drawing up a Development Framework and Environmental Management Plan to provide authorities, landowners and prospective developers with guidance as to the location, appropriate use, scale and intensity of future development opportunities within the site.

The aim of this Traffic Impact Assessment (TIA) is to assist the Development Framework in providing guidance on the effect that development traffic will have on the operation of the local road network, the position and number of accesses and the extent of road infrastructure upgrading that will be required.

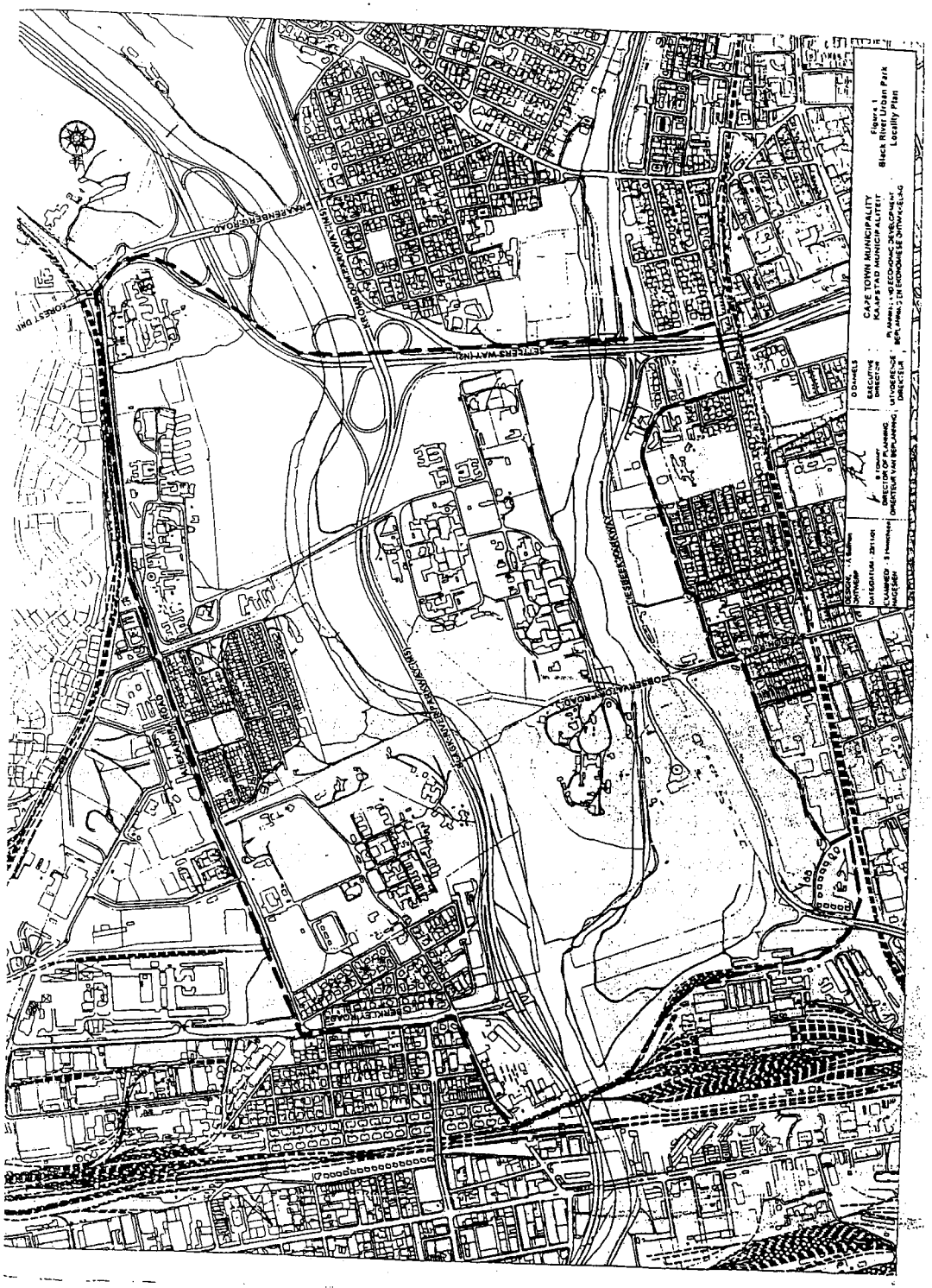
The TIA considers a Short Term Development Scenario and a Long Term Development Scenario that comprise the following:

(a) **Short Term Development Scenario**
All development rezoning / consent applications that have either already been submitted to the City of Cape Town for approval or are pending, have been combined to produce a development scenario for the study area that is likely to be achieved within 1 to 5 years.

(b) **Long Term Development Scenario**
The maximum acceptable level of development as identified in the Gibb Africa Black River Urban Park Pre-Feasibility Study has been used to produce a development scenario for the study area that could possibly be achieved within 5 to 10 years.

The remainder of the TIA analyses the possible traffic impact that development on this site will have on the road network and makes recommendations on the extent of access and road infrastructure upgrading required to ensure that traffic congestion levels during the peak periods are kept within acceptable limits.

In places where road infrastructure upgrading is not possible and congestion levels are expected to be unacceptably high, the TIA makes recommendations on development limitations that should be imposed on the site.



2 EXISTING ROAD NETWORK

The following existing roads, shown in Figure 1 and classified according to the CMC Administration: Directorate of Transport's Metopolitan Road Network Map (CMT. R-0007), serve the Park:

(a) **M5 Freeway / Black River Parkway (Class 1 Freeway)**
This is a four-lane dual carriageway freeway that bisects the Park in a north-south direction. It is a mobility route that does not allow direct access to the Park.

(b) **N2 Freeway / Settlers Way (Class 1 Freeway)**
This is a six-lane dual carriageway freeway that forms the southern boundary of the Park. It is a mobility route that does not allow direct access to the Park.

(c) **Berkley Road (Class 2 Primary Arterial)**
This is a four-lane undivided road that terminates in an interchange with the M5. This road forms the north-eastern boundary of the Park.

(d) **Liesbeek Parkway (Class 3 Secondary Arterial)**
This is a two-lane road that provides direct access to the western portion of the Park. It becomes a 4-lane dual carriageway road south of the N2.

(e) **Raapenberg Road (Class 3 Secondary Arterial)**
This is a four-lane dual carriageway road that links Pinelands to Mowbray and is a major distributor road for vehicles exiting both the N2 and the M5.

(f) **Alexandra Road (Class 3 Secondary Arterial)**
This is a two-lane road that provides direct access to the eastern portion of the Park. It terminates in signalised intersections with Berkley Road in the north and Raapenberg Road in the south.

(g) **Station Road (Class 3 Secondary Arterial)**
This is a two-lane road that links Main Road, Observatory with Liesbeek Parkway. It's junction with Liesbeek Parkway is a signalised intersection.

(h) **Observatory Road (Class 4 Local Distributor)**
This is a narrow two-lane road that serves as the only access road to the western portion of the Park.

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3 BACKGROUND TRAFFIC VOLUMES

Intersection traffic counts were carried out by the City of Cape Town's Transportation Planning Branch from 2001-11-19 to 2001-11-21 during the morning, midday and afternoon peak periods at all major at-grade intersections in the study area. Recent 24hr link counts were also obtained from the CMC Administration's Directorate: Transportation & Traffic for the major freeways in the study area.

These counts are an indication of the current background traffic levels on roads in the study area and are used as the basis for the analysis of operational conditions at the critical intersections. Figure 2 shows the AM peak hour (07:00 - 08:00) and PM peak hour (16:00 - 17:00) background traffic in the study area.

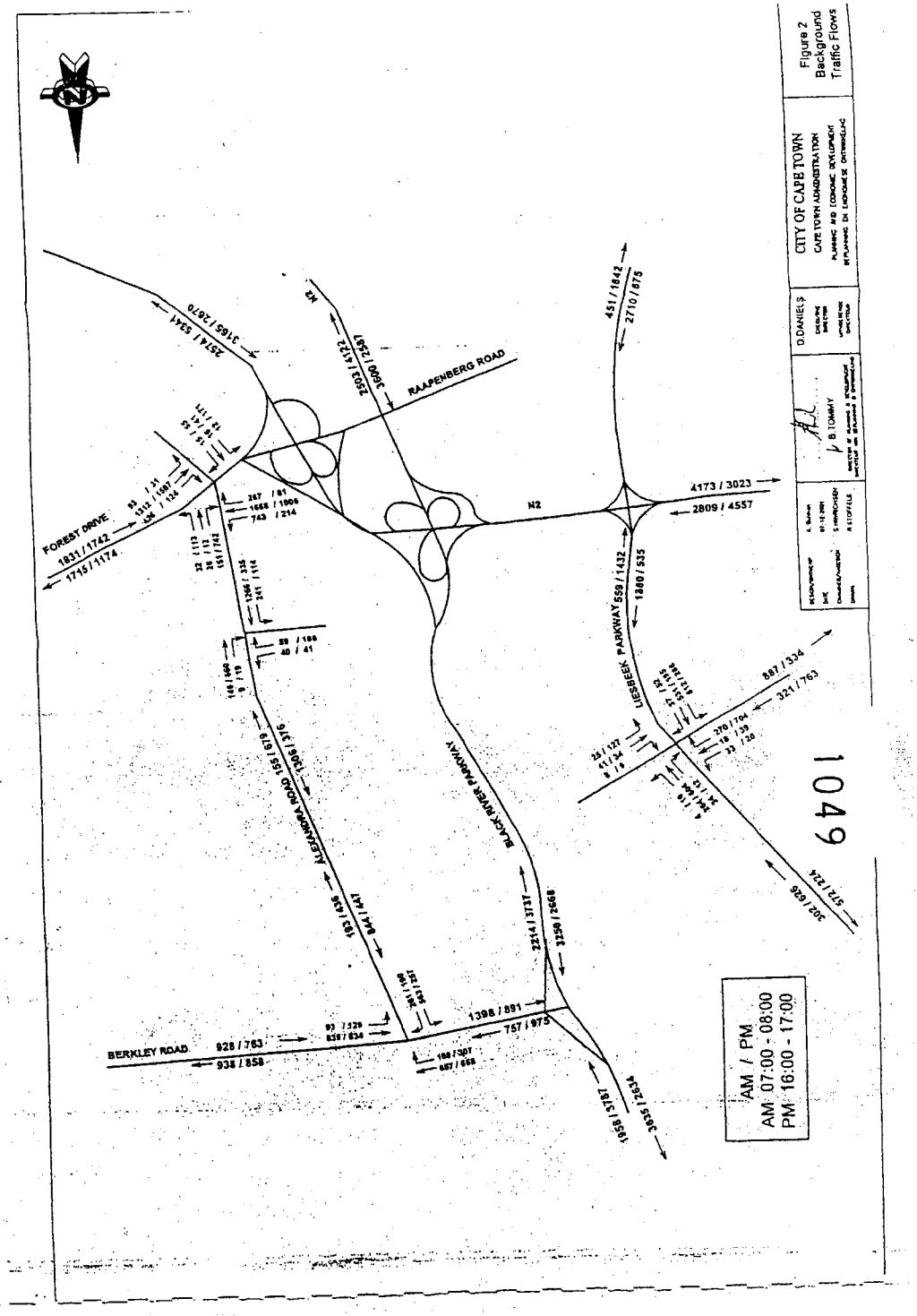
4 TRIP GENERATION

The *"South African Trip Generation Rates Manual"* published by the Department of Transport was used to estimate the trips that will be generated by the development.

Trip generation calculations have been carried out for the various land uses as shown in Table 1 below:

Table 1: Short Term and Long Term Land-Use.

Land Use	Short Term Development Scenario	Long Term Development Scenario
Valkenberg East		
Home Industry Retail	3 320 m²	3 320 m²
Middle Income Residential	114 units	114 units
Suburban Offices	38 279 m²	38 279 m²
Institutional Use	23 020 m²	23 020 m²
Shopping Centre	2 668 m²	2 668 m²
Maitland Village		
Low Income Residential		100 units
Valkenberg West		
Middle Income Residential		175 units
High Income Residential		95 units
Suburban Offices		765 m²
NGO Offices		213 m²
Secondary School		500 pupils
College		640 pupils
RPP Housing		
High Income Residential	80 units	80 units
River Club		
Health Club & Gym	2 500 m²	2 500 m²
Malta Park		
Middle Income Residential		255 units
Black River Business Park		
Suburban Offices	19 000 m²	19 000 m²
Suburban Offices	4 900 m²	4 900 m²
Light Industrial	2 100 m²	2 100 m²



Tables 2 & 3 overleaf show the detailed trip generation calculations for the Short Term and Long Term Development Scenarios respectively.

The trip generation tables have been divided into two sections: trips generated by the eastern portion of the site that will gain access from Alexandra Road and trips generated by the western portion of the site that will gain access from Liesbeek Parkway.

5 TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

To determine the effect the proposed development will have on the road network, the generated trips are distributed onto the existing road network. It is assumed that the generated trips will generally follow the same distribution pattern as the existing traffic in the study area. The percentage of generated trips entering and exiting the study area is therefore proportional to the distribution of the existing traffic on the main roads. These distribution percentages along with the assigned Short Term Development Scenario generated traffic is shown in Figure 3.

The assigned generated traffic is then combined with the background traffic to produce the expected total traffic volumes for the Short Term Development Scenario as shown in Figure 4.

Analysis of the Long Term Development Scenario has not been carried out at this stage due to the large number of uncertainties present when predicting traffic volumes more than 5 years in the future. General assumptions on upgrades required in the long term are therefore made.

6 ANALYSIS AND ROAD UPGRADES REQUIRED

All traffic flow to and from the proposed development is required to pass through either the intersection of Liesbeek Parkway / Station Road, Raapenberg Road / Alexandra Road or Berkley Road / Alexandra Road. These intersections are major constraints to traffic flow in the study area where vehicle congestion is most likely to occur and are therefore considered critical. Analysis of these intersections has been carried using the SIDRA 5.20 analysis package.

Analysis of traffic flow on the freeways in the study area has not been carried out as they are predominantly used by traffic travelling through the study area and are not considered critical to the operation of the proposed development.

The analysis of the background traffic and background traffic plus site generated traffic for the Short Term Development Scenario is as follows:

6.1 Background Traffic

Figure 5 shows the current intersection geometry and the results of the analysis of the 2001 background traffic. The level of service (LOS) and 85th percentile queue lengths of all turning movements and the totals for the intersections are shown for both the AM and PM peak hours. A brief explanation of the results follows:

BERKLEY ROAD / ALEXANDRA ROAD INTERSECTION
This intersection operates adequately at LOS B in both AM and PM peak periods.

TABLE 2 - BLACK RIVER URBAN PARK TRIP GENERATION MODEL

SHORT TERM DEVELOPMENT

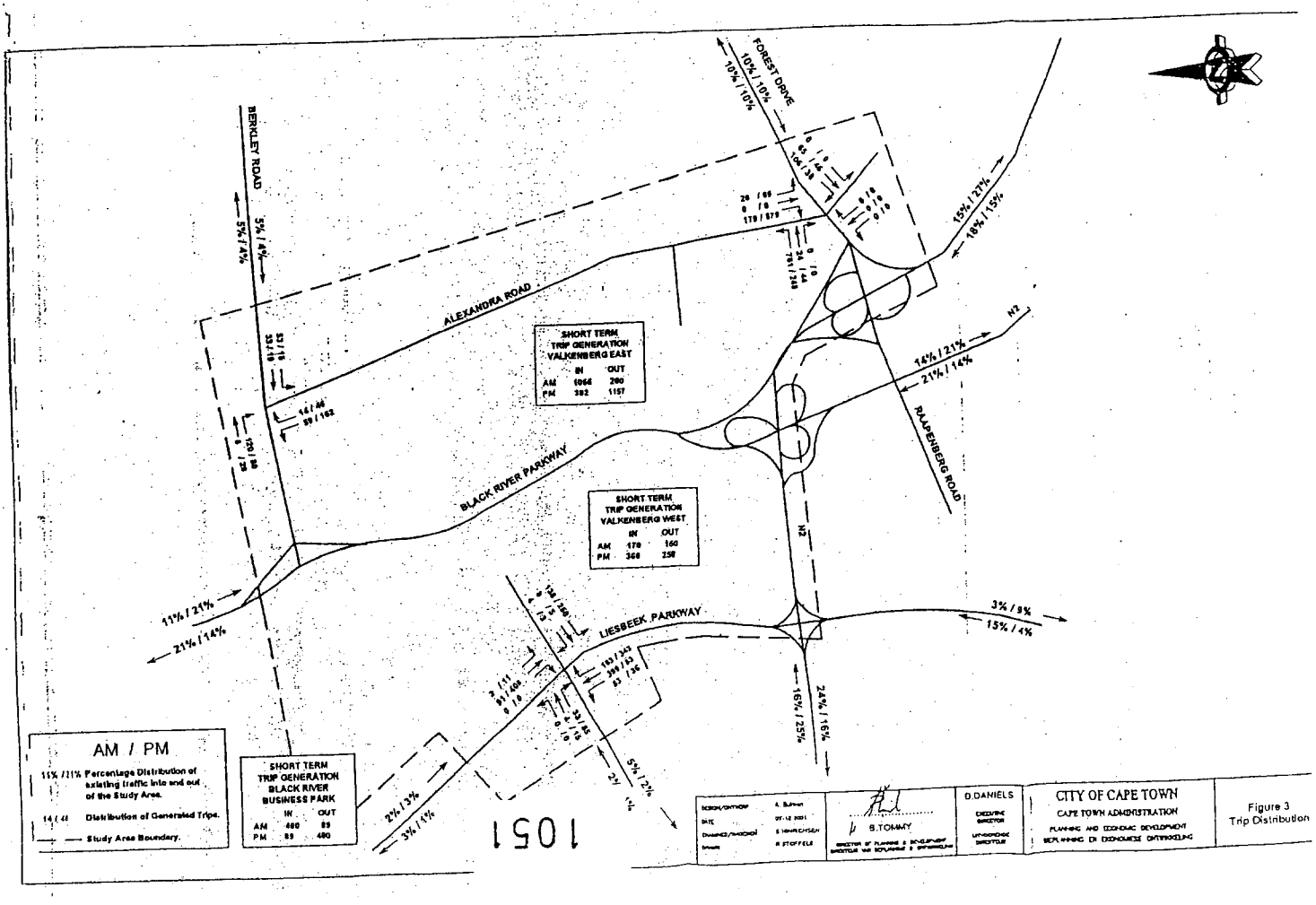
Ref No.	Land Use Type	Size	Unit	AM Rate	PM Rate	Directional split				Total Trips Generated						
						AM Peak		PM Peak		AM Peak			PM Peak			
						In	Out	In	Out	In	Out	Total	In	Out	Total	
	ACCESS FROM ALEXANDRA RD															
	VALKENBERG EAST	3,320	100 m² GLA	0.9	0.9	70	30	30	70	21	9	30	9	21	30	
1.1	Home Industry Retail (Industrial: Small)	114	dwelling unit	1.1	1.1	25	75	75	25	31	94	125	94	31	125	
3.2	Middle Income Residential Area	38,279	100 m² GLA	2.3	2.3	85	15	15	85	748	132	880	132	748	880	
11.2	Suburban Offices	23,020	100 m² GLA	1.3	1.3	85	15	15	85	254	45	299	45	254	299	
	Institutional Use	2,668	100 m² GLA		15.4			50	50				102	102	204	
14	Shopping Centre *															
	SUB-TOTAL									1055	280	1335	382	1157	1539	
	ACCESS FROM LIESBEEK PARKWAY															
	RPP HOUSING	80	dwelling unit	1.5	1.5	25	75	75	25	30	90	120	90	30	120	
3.3	High Income Residential Area															
	VIRGIN ACTIVE CLUB	2,500	100 m² GLA	8.0	20.3	70	30	55	45	140	60	200	279	228	507	
7	Gymnasium & Health Club															
	BLACK RIVER BUSINESS PARK	19,000	100 m² GLA	2.3	2.3	85	15	15	85	371	66	437	66	371	437	
11.2	Suburban Offices	4,900	100 m² GLA	2.3	2.3	85	15	15	85	96	17	113	17	96	113	
11.2	Suburban Offices - Edena Griffiths	2,100	100 m² GLA	0.9	0.9	70	30	30	70	13	6	19	6	13	19	
1.1	Light Industrial - Edena Griffiths									650	238	889	457	739	1196	
	SUB-TOTAL															
	TOTAL									1705	518	2223	840	1896	2736	

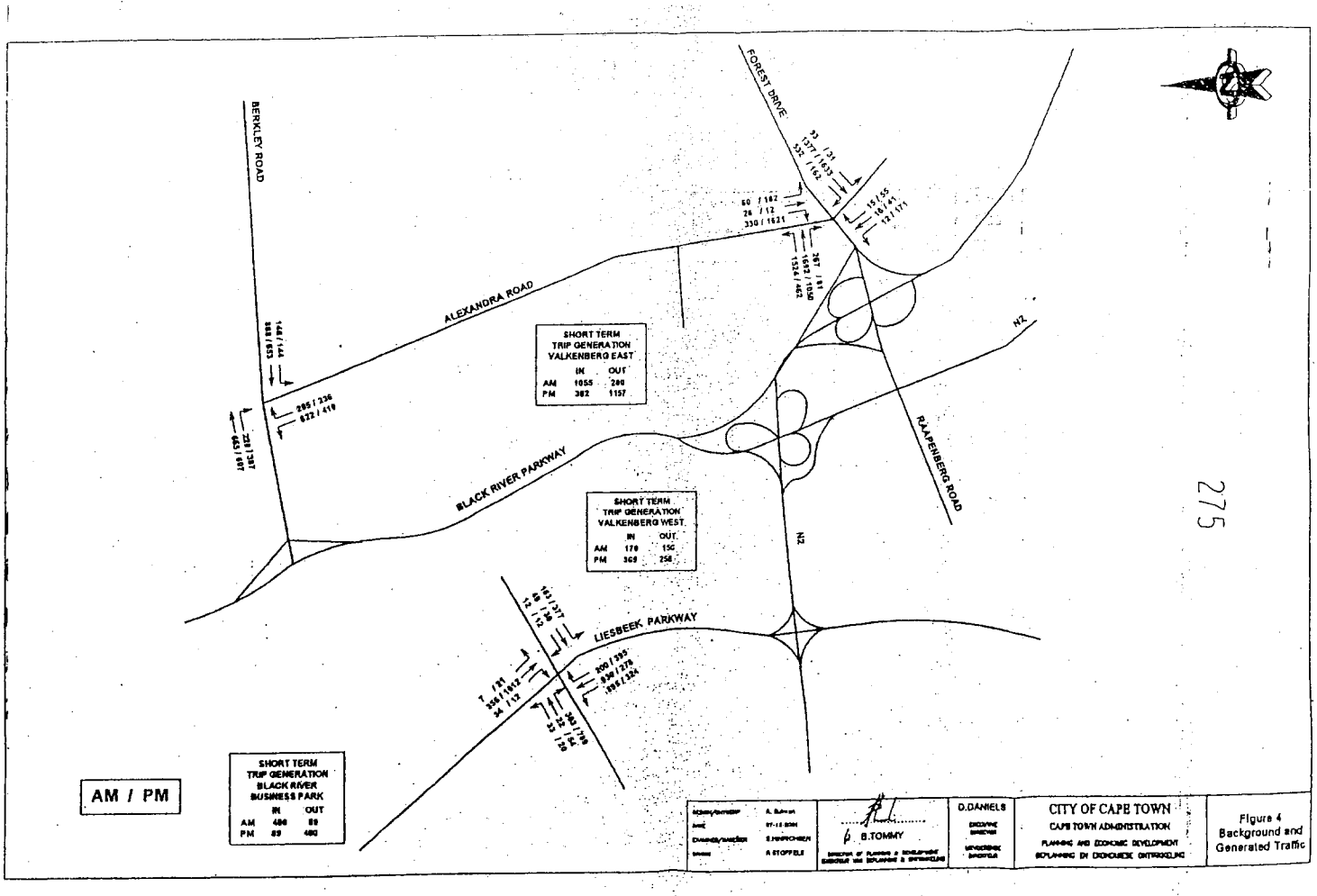
* 50% Diverted trips not reflected here

TABLE 3 - BLACK RIVER URBAN PARK TRIP GENERATION MODEL

LONG TERM DEVELOPMENT

Ref No.	Land Use Type	Size	Unit	AM Rate	PM Rate	Directional split				Total Trips Generated					
						AM Peak		PM Peak		AM Peak			PM Peak		
						In	Out	In	Out	In	Out	Total	In	Out	Total
	ACCESS FROM ALEXANDRA RD														
	VALKENBERG EAST														
1.1	Home Industry Retail (Industrial: Small)	3,320	100 m² GLA	0.9	0.9	70	30	30	70	21	9	30	9	21	30
3.2	Middle Income Residential Area	114	dwelling unit	1.1	1.1	25	75	75	25	31	94	125	94	31	125
1.2	Suburban Offices	38,279	100 m² GLA	2.3	2.3	85	15	15	85	748	132	880	132	748	880
	Institutional Use	23,020	100 m² GLA	1.3	1.3	85	15	15	85	254	45	299	45	254	299
14	Shopping Centre *	2,668	100 m² GLA		15.4			50	50			41	102	102	204
	MAITLAND VILLAGE														
3.1	Low Income Residential Area	100	dwelling unit	0.5	0.5	35	65	65	35	18	33	50	33	18	51
	SUB-TOTAL									1072	312	1385	415	1175	1588
	ACCESS FROM LIESBEEK PARKWAY														
	VALKENBERG WEST														
3.2	Middle Income Residential Area	175	dwelling unit	1.1	1.1	25	75	75	25	48	144	192	144	48	192
3.3	High Income Residential Area	95	dwelling unit	1.5	1.5	25	75	75	25	36	107	143	107	36	143
1.2	Suburban Offices	765	100 m² GLA	2.3	2.3	85	15	15	85	15	3	18	3	15	18
1.2	NGO Offices	213	100 m² GLA	2.3	2.3	85	15	15	85	4	1	5	1	4	5
9	Secondary School	500	pupil	0.8		55	45			220	180	400			
9	College	640	student	0.7		75	25			336	112	448			
	RPP HOUSING														
3.3	High Income Residential Area	80	dwelling unit	1.5	1.5	25	75	75	25	30	90	120	90	30	120
	VIRGIN ACTIVE CLUB														
7	Gymnasium & Health Club	2,500	100 m² GLA	8.0	20.3	70	30	55	45	140	60	200	279	228	507
	MALTA PARK														
3.2	Middle Income Residential Area	255	dwelling unit	1.1	1.1	25	75	75	25	70	210	280	210	70	280
	BLACK RIVER BUSINESS PARK														
1.2	Suburban Offices	19,000	100 m² GLA	2.3	2.3	85	15	15	85	371	66	437	66	371	437
1.2	Suburban Offices - Edena Griffiths	4,900	100 m² GLA	2.3	2.3	85	15	15	85	96	17	113	17	96	113
1.1	Light Industrial - Edena Grifiths	2,100	100 m² GLA	0.9	0.9	70	30	30	70	13	6	19	6	13	19
	SUB-TOTAL									1379	995	2375	922	912	1834
	TOTAL									2452	1308	3760	1337	2087	3423




BERKLEY ROAD
FOREST DRIVE
ALEXANDRA ROAD
BLACK RIVER PARKWAY
LIESBEEK PARKWAY
R.A.P.ENBERG ROAD
N2
SHORT TERM TRIP GENERATION VALKENBERG EAST
IN OUT
AM 1055 280
PM 382 1157
SHORT TERM TRIP GENERATION VALKENBERG WEST
IN OUT
AM 178 150
PM 368 258
SHORT TERM TRIP GENERATION BLACK RIVER BUSINESS PARK
IN OUT
AM 480 80
PM 80 480
AM / PM
D.DANIELS
B.TOMMY
CITY OF CAPE TOWN
CAPE TOWN ADMINISTRATION
PLANNING AND ECONOMIC DEVELOPMENT
Figure 4
Background and Generated Traffic

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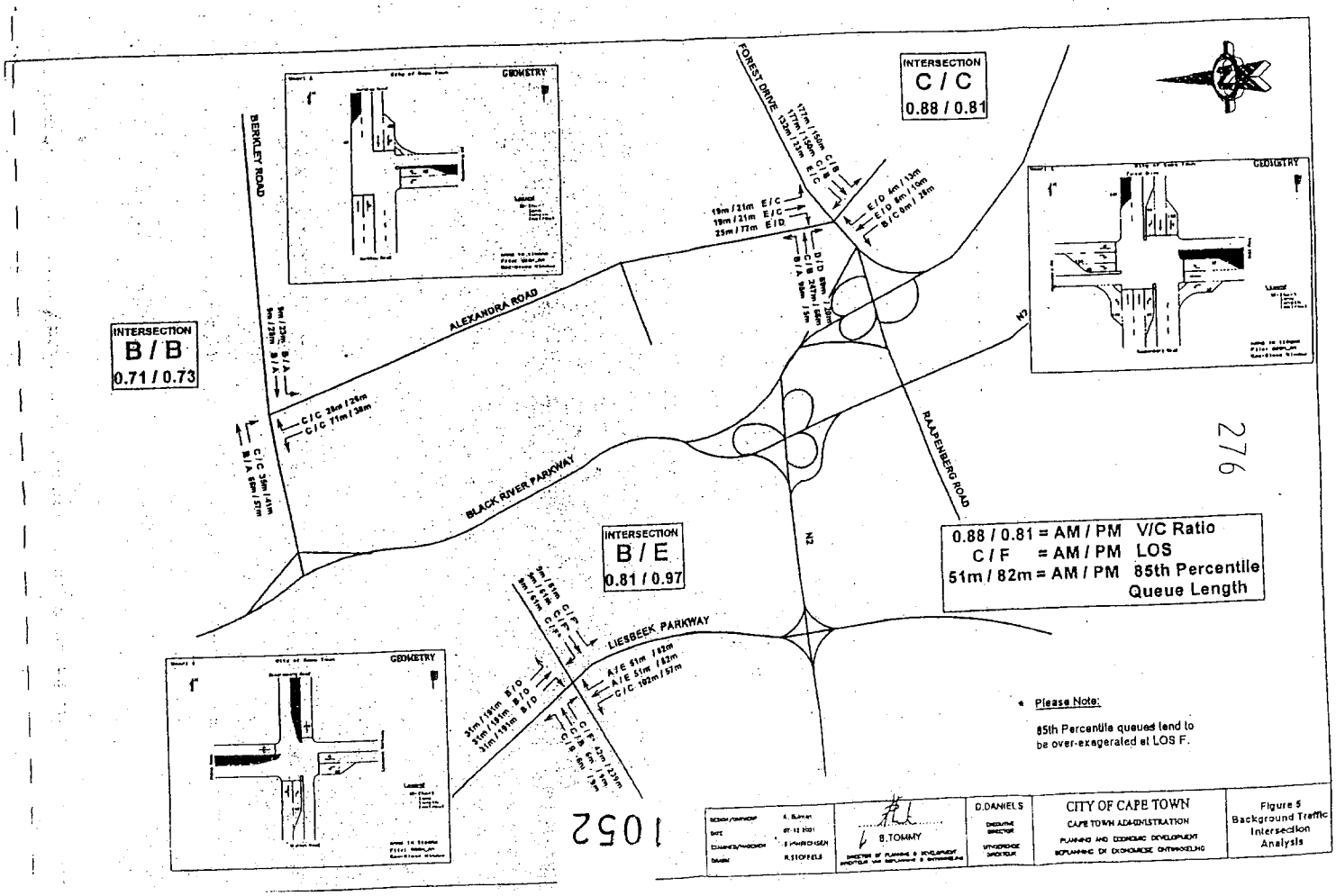
INTERSECTION
C / C
0.88 / 0.81
INTERSECTION
B / B
0.71 / 0.73
INTERSECTION
B / E
0.81 / 0.97
GEOMETRY
BERKLEY ROAD
FOREST DRIVE
ALEXANDRA ROAD
BLACK RIVER PARKWAY
LIESBEEK PARKWAY
R.A.P.ENBERG ROAD
N2
0.88 / 0.81 = AM / PM V/C Ratio
C / F = AM / PM LOS
51m / 82m = AM / PM 85th Percentile Queue Length
Please Note:
85th Percentile queues tend to be over-exagerated at LOS F.
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B.TOMMY
CITY OF CAPE TOWN
CAPE TOWN ADMINISTRATION
PLANNING AND ECONOMIC DEVELOPMENT
Figure 5
Background Traffic Intersection Analysis

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RAAPENBERG / ALEXANDRA ROAD INTERSECTION
This intersection operates adequately at LOS C in the AM peak. Poor levels of service are, however, experienced at some of the approaches. The high level of congestion experienced at the Raapenberg Road (west) approach is partly due to the close proximity of the N2 off-ramp to the intersection.
This intersection operates adequately at LOS C in the PM peak.

LIESBEEK PARKWAY / STATION ROAD INTERSECTION
This intersection operates adequately at LOS B in the AM peak, but operates poorly at LOS E in the PM peak. The high level of congestion experienced at the Station Road (west) approach in the AM peak can be partly attributed to motorists giving way to vehicles entering from Fir Street.

6.2 Background Traffic And Site Generated Traffic

Figure 6 shows the required intersection geometry and the results of the analysis of the 2001 background traffic plus site generated traffic. A brief explanation of the results follows:

BERKLEY ROAD / ALEXANDRA ROAD INTERSECTION
This intersection will operate adequately at LOS B in both AM and PM peak periods. No improvements to the geometry are therefore required.

RAAPENBERG / ALEXANDRA ROAD INTERSECTION
This intersection will require an additional exit lane at the Alexandra Road approach. It will then operate adequately at LOS D in the AM peak, but still very poorly at LOS F in the PM peak. In addition, poor levels of service will be experienced at a number of approaches in both peak periods.

LIESBEEK PARKWAY / STATION ROAD INTERSECTION
This intersection will require major upgrading to add a number of lanes to all approaches of the intersection. It will then operate adequately at LOS B in the AM peak, but still very poorly at LOS F in the PM peak.

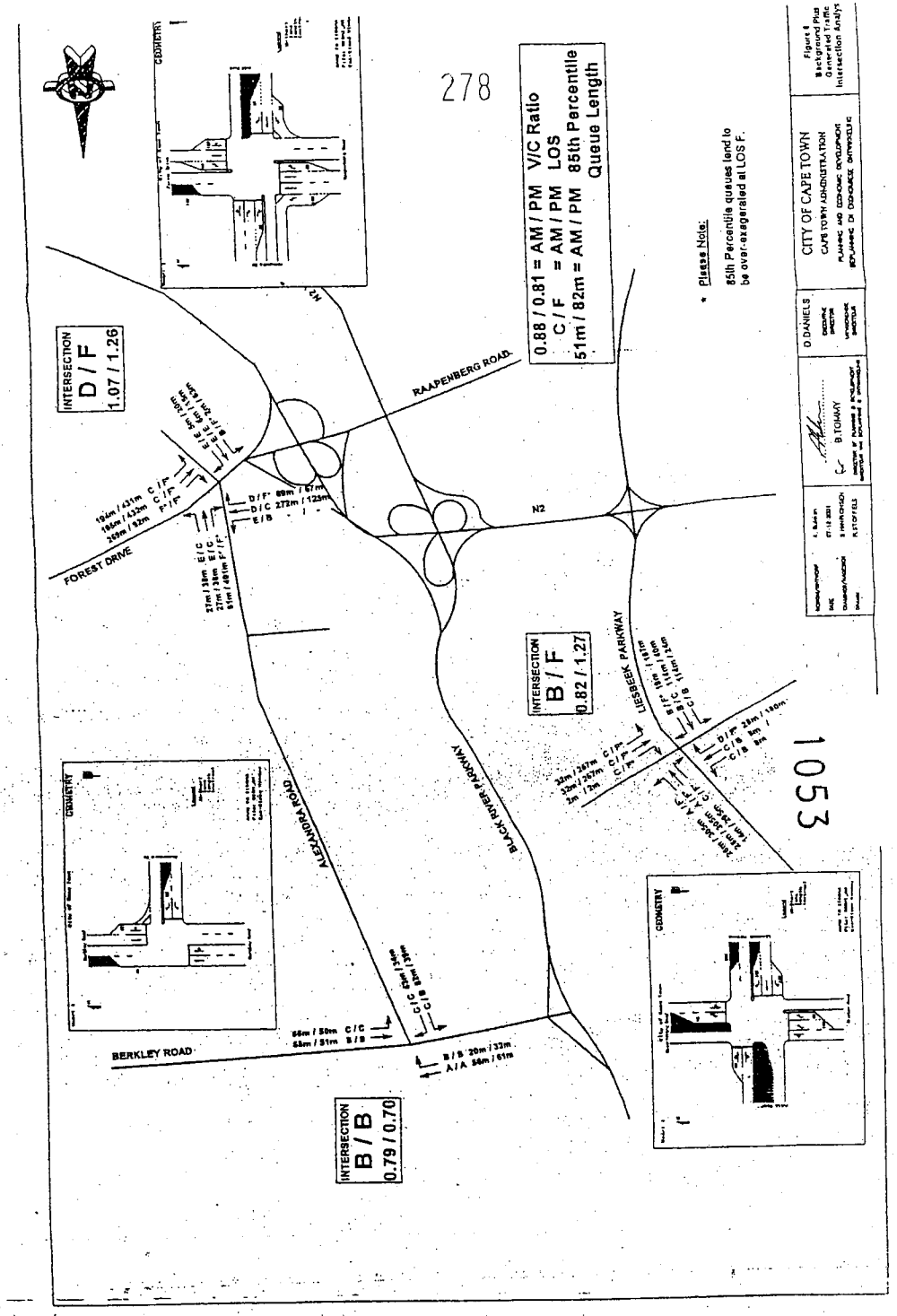
7 PROPOSED ROAD SCHEMES

7.1 Berkley Road Widening And Extension to Liesbeek Parkway Scheme

In the late 1940's a scheme was prepared to widen Berkley Road and extend it from its intersection with the M5, across the Black and Liesbeek Rivers, to join Liesbeek Parkway. The scheme was approved by the Provincial Roads Engineer in 1949, but has not yet been implemented. It was briefly analysed in the early 1990's when it was suggested that the extension across the rivers be downgraded to a two lane undivided carriageway with an at-grade intersection with Liesbeek Parkway. The present status of the scheme is that of "Review".

7.2 Alexandra Road Widening Scheme

This scheme involves the widening of Alexandra Road from Berkley Road to Raapenberg Road and was approved in 1965 by the Provincial Roads Engineer. The road presently has a sidewalk on the western side and two roadway lanes, one in each direction. The scheme proposes sidewalks and parallel parking embayments on both sides of the road, but still only two roadway lanes. To date,



the demand for parking on Alexandra Road has been low which is probably one of the reasons why the scheme has not been implemented yet. The scheme was reviewed in 1993 where it was decided to be retained.

Neither of these road schemes are expected to be implemented in the near future and have therefore not been considered in this TIA.

8 PUBLIC TRANSPORT FACILITIES AND PEDESTRIAN MOVEMENT

Road-based public transport such as buses and mini-bus taxis are subject to the same road operating conditions as private vehicles. Improvements to the efficiency and availability of these services in the study area are therefore closely linked to the improved operation of the critical intersections. Additional facilities such as taxi and bus drop-off / pick-up points on Alexandra Road and Liesbeek Parkway will be required and can be designed at the plan-approval stage.

The site is served by two railway stations, Observatory Station on the western boundary of the site and Pinelands Station on the eastern boundary. The maximum walking distance from either of the stations to the middle of the site is 900m.

Pedestrians moving from Observatory Station to the site will travel eastwards along Station Road to the intersection with Liesbeek Parkway. The upgraded Station Road / Liesbeek Parkway intersection should include pedestrian facilities to allow this pedestrian movement to occur safely.

The pedestrians moving from Pinelands Station will cross Alexandra Road at the existing signalised pedestrian crossing. This pedestrian crossing may be incorporated into a signalised intersection in the future.

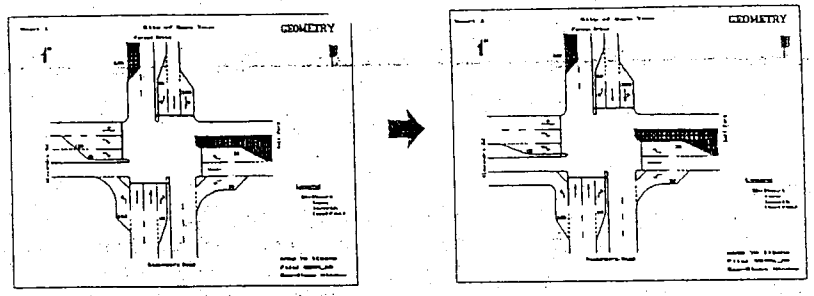
9 CONCLUSIONS

From the results of the analysis it can be concluded that:

9.1 Short Term Development Scenario

- The proposed Valkenberg East Development will create serious congestion problems at the existing Alexandra Road / Raapenberg Road intersection during both the AM and PM peak periods. Approximately only 30% of the proposed development (±400 new trips in the AM peak and ±460 new trips in the PM peak) can be accommodated by the existing road infrastructure. Due to the tidal nature of the traffic flow along Raapenberg Road, an improvement in the capacity of the Alexandra Road / Raapenberg Road intersection could be achieved at a relatively low cost by the installation of a SCOOT (Split Cycle Offset Optimisation Technique) system.

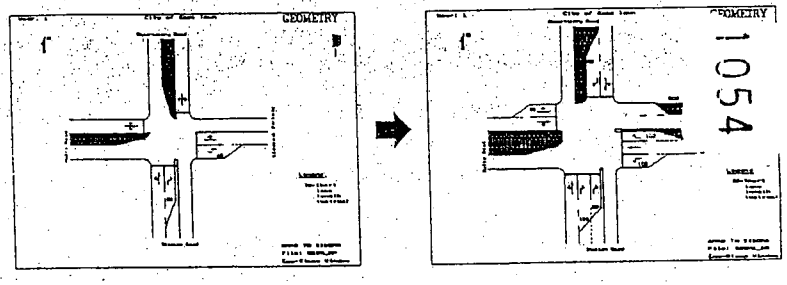
- However, if the Alexandra Road / Raapenberg Road intersection is upgraded as shown below and Alexandra Road is upgraded to four-lane dual-carriageway between Raapenberg Road and the development access, the size of the development can be increased to approximately 65% of the proposed size (±860 new trips in the AM peak and ±1000 new trips in the PM peak). The position of the Alexandra Road / Raapenberg Road intersection on top of the railway bridge, does however, make any upgrading of this



Existing Geometry Proposed Geometry

- The Liesbeek Parkway / Station Road intersection is currently at capacity and experiences high levels of congestion during the PM peak. This intersection cannot therefore accommodate any further development traffic in its current form.

- The development of the Black River Business Park, The River Club Gym & Health Club and the RPP Housing Development could proceed provided that the intersection is upgraded as shown below:



Existing Geometry Proposed Geometry

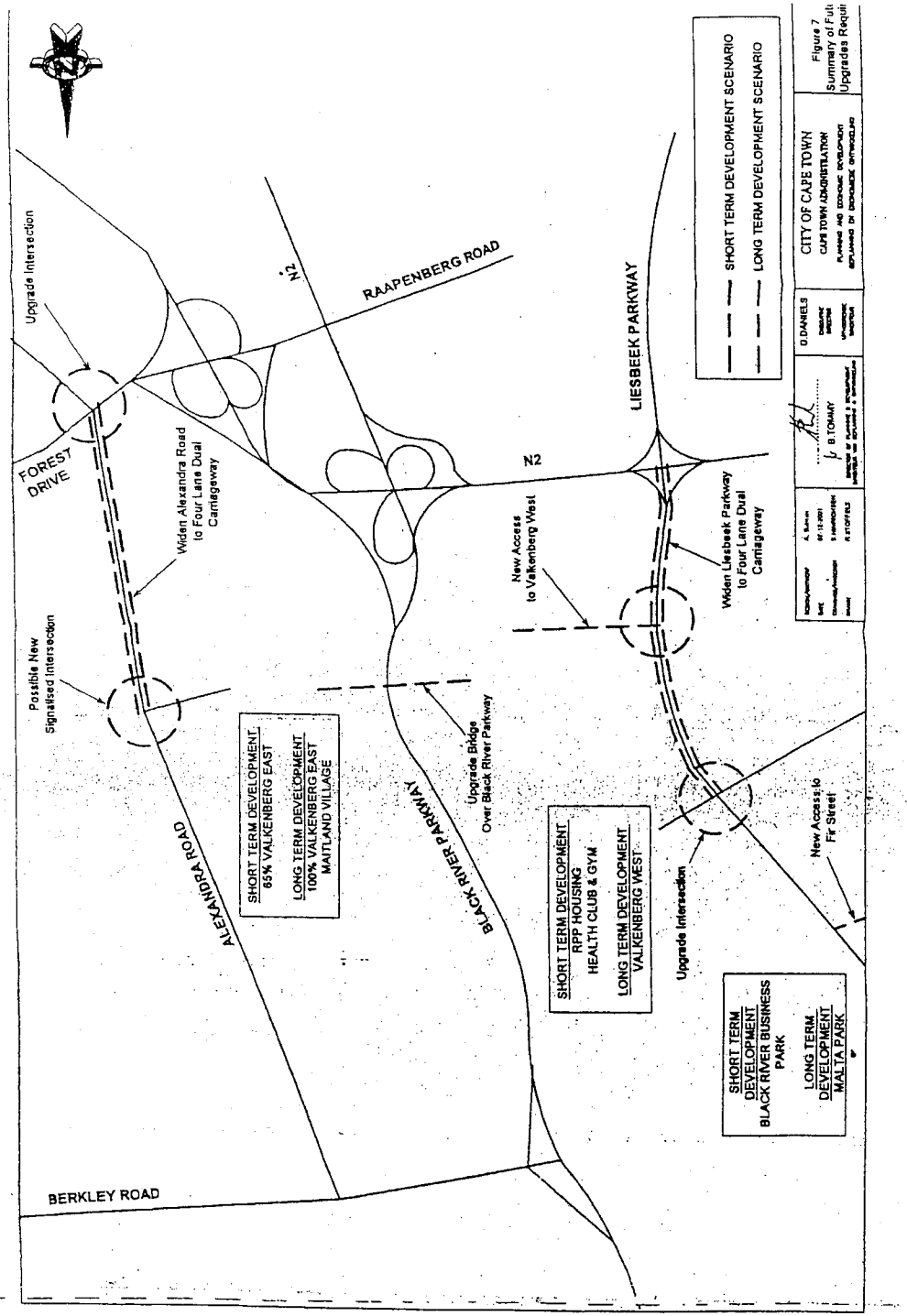
- In addition, the Black River Business Park requires the construction of an additional access road linking Malta Road to Fir Street to provide improved access to the precinct.

- The Berkley Road / Alexandra Road Intersection could accommodate the ful development traffic satisfactorily and therefore will not require any upgradinc

9.2 Long Term Development Scenario

- The further development of Maitland Village, Valkenberg West, Valkenberg East and Malta Park cannot be accommodated by the Short Term Development Scenario upgraded road network. A new access point to the site would be required off Liesbeek Parkway and Liesbeek Parkway would require upgrading to a four-lane dual-carriageway road between Station Road and the N2.

- The private bridge over Black River Parkway that connects Valkenberg Eas with Valkenberg West would require upgrading to allow vehicles to move between the two precincts.



10 RECOMMENDATIONS

It is therefore recommended that:

- If the upgrading of the Alexandra Road / Raapenberg Road Intersection and the widening of Alexandra Road proves not to be feasible, then the extent of the proposed Valkenberg East Development be limited to approximately 30% of its proposed size (±400 new trips in the AM peak and ±460 new trips in the PM peak) and a SCOOT system installed at the Alexandra Road / Raapenberg Road Intersection.
- If the upgrading of the Alexandra Road / Raapenberg Road Intersection and the widening of Alexandra Road proves to be feasible, then the extent of the proposed Valkenberg East Development be limited to approximately 65% of its proposed size (±860 new trips in the AM peak and ±1000 new trips in the PM peak).
- The RPP Housing Development and the River Club Gym & Health Club could be approved subject to the upgrading of the Station Road / Liesbeek Parkway intersection and any other upgrades required to the internal road network.
- The Black River Business Park could be approved subject to the upgrading of the Station Road / Liesbeek Parkway intersection and the construction of the Malta Road / Fir Street linking road.
- No further development in the Two Rivers Urban Park should be considered until a detailed investigation of the feasibility of providing an additional access point off Liesbeek Parkway, the widening of Liesbeek Parkway and making use of the internal bridge over the M5, is carried out

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12 REFERENCES

12.1	South African Trip Generation Rates Manual	Dept of Transport	June 1995
12.2	Black River Park Pre-Feasibility Study	Gibb Africa	June 1999
12.3	Two Rivers Urban Park Spatial Development Framework and Phase One Management Plan	Cape Town Admin	Aug 2001
12.4	Black River Business Park TIA	Ninham Shand	Mar 2001
12.5	Black River Business Park: Revised Access Prop	Ninham Shand	Aug 2001
12.6	Valkenberg East TIA	Arcus Gibb	June 200
12.7	Erf 160695 Site Data Sheet	RPP Developments	Aug 1999
12.8	Metropolitan Road Network Map CMT. R-0007	CMC Administration	2001

ANNEXURE 3 AVIFAUNA AND PLANT SPECIES RECORDED IN THE TWO RIVERS URBAN PARK

INDIGENOUS AND ALIEN PLANT SPECIES RECORDED IN THE TWO RIVERS URBAN PARK

A. Indigenous plants (38 species)

ANACARDIACEAE	*Rhus glauca*
ANACARDIACEAE	*Rhus laevigata*
ANACARDIACEAE	*Rhus lucida*
APONOGETONACAE	*Aponogeton distachyos*
ARACEAE	*Zandtedeschia aethiopica*
ASTERACEAE	*Arctotheca calendula*
ASTERACEAE	*Chrysanthemoides monilifera*
ASTERACEAE	*Conyza ivaefolia*
ASTERACEAE	*Corula coronopifolia*
ASTERACEAE	*Helichrysum crispum*
ASTERACEAE	*Senecio burmannii*
ASTERACEAE	*Senecio littoreus*
CYPERACEAE	*Cyperus fastigiatus*
CYPERACEAE	*Cyperus cf. longus*
CYPERACEAE	*Cyperus textilus*
CYPERACEAE	*Scirpus venustulus*
FLACOURTIACEAE	*Kiggellaria africana*
GERANIACEAE	*Pelargonium capitarum*
IRIDACEAE	*Gladiolus tristis*
JUNCACEAE	*Bolboschoenus maritimus*
JUNCACEAE	*Juncus kraussii*
JUNCACEAE	*Scirpus nodosus*
LEMNACEAE	*Lemna gibba*
LOBELIACEAE	*Lobelia erinus*
MESEMBRYANTHEMACEAE	*Carpobrotus edulis*
MESEMBRYANTHEMACEAE	*Mesembryanthemum crystallinum*
ORCHIDACEAE	*Saryrium odorum*
POACEAE	*Cynodon dacrylon*
POACEAE	*Paspalum dilaranum*
POACEAE	*Pennisetum macrourum*
POACEAE	*Phragmites australis*
POACEAE	*Sporobolis virginicus*
POACEAE	*Stenotaphrum secundarum*
POLYGONACEAE	*Polygonum salicifolium*
POLYGONACEAE	*Rumex saggitarum*
POTAMOGETONACEAE	*Potamogeton pectinarus*
STERCULIACEAE	*Hermannia sp*

B. Alien plants (51 species)

ALISMATACEAE	*Alisma lanceolatum*
ALISMATACEAE	*Saggittaria satittifolia*
AMARANTHACEAE	*Amaranthus sp*
ANACARDIACEAE	*Schinus terebinthifolius*
APOCYNACEAE	*Vinka major*
ASTERACEAE	*Chromolaena odorata*
ASTERACEAE	*Chrysanthemum coronarium*
ASTERACEAE	*Senecio pterophorus*

AZOLLACEAE	*Azolla filiculoides*
BETULACEAE	*Alnus glutinosa*
CANNACEAE	*Canna indica*
CERATOPHYLLACEAE	*Ceratophyllum demersum*
CHENOPODIACEAE	*Chenopodium album*
COMMELINACEAE	*Tradescantia flumenensis*
CONVOLVULACEAE	*Convolvulus farinosus*
CONVOLVULACEAE	*Ipomoea violacea*
CRUCIFERAE	*Nasturtium rorippa aquaricum*
EUPHORBIACEAE	*Ricinus communis*
FABACEAE	*Acacia cyclops*
FABACEAE	*Acacia mearnsii*
FABACEAE	*Acacia saligna*
FABACEAE	*Paraserianthes lophantha*
FABACEAE	*Sesbania punicea*
PAPILIONACEAE	*Vicia atropurpurea*
HALORAGIDACEAE	*Myriophyllum aquaricum*
HYDROCHARITACEAE	*Lagarosiphon major*
LYTHRACEAE	*Lythrum virgatum* *
MALVACEAE	*Malva Nicense*
MALVACEAE	*Malva parviflora*
MORACEAE	*Cannabis sariva*
MYOPORACEAE	*Myoporum serratum*
MYRTACEAE	*Eucalyptus grandis*
MYRTACEAE	*Eucalyptus lehmannii*
NYMPHAEACEAE	*Nymphaea sp*
PINACEAE	*Pinus pinea*
POACEAE	*Avena farua*
POACEAE	*Lagurus ovatus*
POACEAE	*Lolium cf. multiflorum*
POACEAE	*Paspalum vaginatum*
POACEAE	*Pennisetum clandestinum*
POACEAE	*Pennisetum macrourum*
POACEAE	*Vulpia myuros*
POLYGONACEAE	*Polygonum kitaibelianum*
PONTEDERIACEAE	*Eichornia crassipes*
SALICACEAE	*Populus canescens*
SALICACEAE	*Salix babylonica*
SALICACEAE	*Salix fragilis*
SOLANACEAE	*Darura stramonium*
TROPAEOLACEAE	*Tropaeolum majus*
ULMACEAE	*Ulmus procera*
VERBENACEAE	*Verbena bonariensis*

* K Roux, pers obs

BIRD SPECIES RECORDED IN THE TWO RIVERS URBAN PARK

(a) Waterbird species (separated into orders) and (b) terestrial species that have been recorded at the Black River wetlands and surrounding areas. Red Data species are underlined, and denotes Southern African endemics. Details of the counts, seasonality and breeding status are given as follows:

Counts:
Max. Recorded or
C: common
++: recorded
+: probably occurs

Seasonability:
A: all year
SP: spring
SM: summer
M: migrant
OV: occassional visitor
RV: rare visit

Breeding
B: breeds
PB: probably breeds
PNB: probably does not breed
NB: does not breed

(a) WATERBIRD SPECIES	Max.	Seas.	Br.
Grebes			
Dabchick *Tachybaptus ruficollis*	10	A	PB
Pelicans			
White Pelican *Pelecanus onocrotalus*	12	SP	NB
Cormorants			
Whitebreasted Cormorant *Phalacrocorax carbo*	20	A	PNB
Reed Cormorant *P. Africanus*	20	A	PNB
Darter *Anhinga melanogaster*	10	A	PNB
Herons			
Grey Heron *ardea cinerea*	13	A	B
Blackheaded Heron *A melanocephela*	6	A	PNB
Purple Heron *A purpurea*	5	A	B
Great White Egret *Egretta alba*	2	OV	NB
Little Egret *E garzetta*	5	A	PNB
Yellowbilled Egret *E intermedia*	6	OV	PNB
Cattle Egret *Bubulcus ibis*	30	A	PNB
Blackcrowned Night Heron *Nycricorax nycricorax*	25	A	B
Bitterns			
Little Bittern *Ixobrychus minurus*	2	RV	PNB
Hamerkops			
Hamerkop *Scopus umbretta*	2	RV	NB
Ibises			
Sacred Ibis *Threskiornis aethiopicus*	40	A	NB
Glossy Ibis *Plegadis falcinellus*	7	SP-SM	NB
African Spoonbill *Platalea alba*	6	SP-SM	NB
Flamingoes			
Greater Flamingo *Phoenicopterus ruber*	++	RV	NB

(a) **WATERBIRD SPECIES (Continued)**	**Max.**	**Seas.**	**Br.**
Ducks & Geese			
Fulvous Duck *D bicolor*	++	RV	NB
Egyptian Goose *Alopochen aegyptiacus*	50	A	PB
Yellowbilled duck *Anas undulata*	100	A	B
Cape Teal *A capensis*	20	OV	NB
Redbilled Teal *A erythrorhyncha*	100	A	B
Cape Shoveller *A smithii**	50	A	B
African black Duck *Anas sparsa*	6	A	B
Southern Pochard *Netta erythrophthalma*	6	SP	PNB
Spurwinged Goose *Plectropterus gambensis*	4	OV	NB
Raptors			
African Marsh Harrier *Circus ranivorus*	++	OV/SM	NB
Rails			
African Rail *Rallus caerulescens*	+	A	PB
Black Crake *Amaurornis flavirostris*	+	A	PB
Purple Gallinule *Porphyrio porphyrio*	13	A	B
Moorhen *Gallinula choropus*	25	A	B
Redknobbed Coot *Fulica cristata*	208	A	B
Waders, gulls & terns			
Ringed Plover *Charadrius hiaticula*	2	M/SP	NB
Kittlitz's Plover *C pecuarius*	20	SP	PNB
Threebanded Plover *C tricollaris*	10	SP	PNB
Blacksmith Plover *Vanellus armatus*	108	A	B
Common Sandpiper *Tringa hypoleucos*	+	M/SP-SM	NB
Wood Sandpiper *T glareola*	6	M/SP-SM	NB
Marsh Sandpipe *T stagnarilis*	20	M/SP-SM	NB
Greenshank *T nebularia*	6	M/SP-SM	NB
Curlew Sandpiper *C ferruginea*	45	M/SP-SM	NB
Little Stint *C minuta*	10	M/SP-SM	NB
Ruff *Philomachus pugnax*	6	M/SP-SM	NB
Ethiopian Snipe *Gallinago nigripennis*	7	SP-SM	PB
Avocet *Recurvirostra avosetta*	100	SP-SM	PNB
Blackwinged Stilt *Himantopus himantopus*	40	SP-SM	PB
Water Dikkop *Burhinus vermiculatus*	+	A	PB
Kelp Gull *Larus dominicanus*	200	A	NB
Greyheaded Gull *L cirrocephalus*	+	A	NB
Hartlaub's Gull *L hartlaubii**	1602	A	NB
Common Tern *Sterna hirundo*	+	M/SP-SM	NB
Swift Tern *S bergii*	++	A	NB
Whitewinged Tern *Chlidonias leucopterus*	+	M/SP-SM	NB
Coucals			
Burchell's Coucal *Centropus burchelli**	4	A	PB
Kingfishers			
Pied Kingfisher *Ceryle rudis*	6	A	B
Giant Kingfisher *C maxima*	2	A	PB
(a) WATERBIRD SPECIES (Continued)	**Max.**	**Seas.**	**Br.**
Malachite Kingfisher *Alcedo cristata*	2	A	PB
Passerines			
Whitethroated Swallow *H albigularis*	C	M/SP	B
Brownthroated Martin *Riparia paludicola*	C	M/SM	PB
African Marsh Warbler *Acrocephalus baeticatus*	C	M/SP	PB
Cape Reed Warbler *A gracilirostris*	C	A	P
African Sedge Warbler *Bradypterus baboecala*	C	A	PB
Levaillant's Cisticola *C tinniens*	C	A	B
Cape Wagtail *Motacilla capensis*	10	A	PB
Cape Weaver *Ploceus capensis**	C	SP	B
Masked Weaver *P velatus*	C	SP	B
Red Bishop *Euplectes orix*	C	SP	B
Yellowrumped Widow *E capensis*	C	SP	B
Common Waxbill *Estrilda astrild*	C	SP	PB
(b) **OTHER SPECIES**			
Hadeda ibis *Hagedashia hagedash*	C		
Crowned Plover *Stephanibyx coronarus*	C		
Yellowbilled Kite *Milvus migrans*	++		
Blackshouldered Kite *Elanus caeruleus*	C		
Steppe Buzzard *Buteo buteo*	C		
Redbreasted Sparrowhawk *Accipiter rufiventris*	C		
African Goshawk *Accipiter tachiro*	+		
Peregrine Falcon *Falco peregrinus*	+		
Lanner Falcon *Falco biarmicus*	++		
Rock Kestrel *Falco tinnunculus*	+		
Cape Francolin *Francolinus capensis**	C		
Spotted Dikkop *Burhinus capensis*	C		
Rock Pigeon *Columba guinea*	C		
Redeyed Dove *Streptopelia semitorquara*	C		
Cape Turtle Dove *S capicola*	C		
Laughing Dove *S senegalensis*	C		
Klaas's Cuckoo *Chrysococcyx klaas*	++		
Diederik's Cuckoo	++		
Barn Owl *Tyto alba*	++		
Spotted Eagle Owl *Bubo africanus*	++		
Fierynecked Nightjar *Caprimulgus pectoralis*	+		
Whiterumped Swift *Apus caffer*	+		
Little Swift *A affinis*	C		
Alpine Swift *A melba*	C		
Pied Barbet *Lybius leucomelas*	+		
Redcapped Lark *Calandrella cinerea*	++		
European Swallow *Hirundo rustica*	C		
Greater Striped Swallow *Hirundo cucullata*	C		
Pied Crow *Corvus albus*	C		
Olive Thrush *Turdus olivaceus*	C		
Cape Robin *Cossypha caffra**	++		

(b) OTHER SPECIES (Continued)	Max.	Seas.	Br.
Barthroated Apalis *Apalis thoracica*	+		
Grassbird *Sphenoeacus afer**	+		
Fantailed Cisticola *Cisticola juncidis*	C		
Neddicky *C fulvicapilla*	++		
Spotted Prinia *Prinia maculosa**	C		
Helmeted Guineafowl *Numida meleagris*			
Blackheaded Oriole *Oriolus larvatus*			
Feral Pigeon *Columba livia*			
Whitenecked Raven *Corvus albicollis*			
Black Crow *Corvus capensis*			
Redchested Cuckoo *Cuculus solitarius*			
Paradise Flycatcher *Terpsiphone viridis*			
Spotted Prinia *Prinia maculosa* *	C		
Cape Batis *Batis capensis*	+		
Grassveld Pipit *Anthus novaseelandiae*	+		
Orangethroated Longclaw *Macronyx capensis**	C		
Fiscal Shrike Lanius collaris	C		
Southern Boubou *Laniarius ferrugineus**	+		
Bokmakierie *Telophorus zeylonus**	+		
European Starling *Sturnus vulgaris*	C		
Redwinged Starling *Onychognathus morio*	C		
Lesser Doublecollared Sunbird *Cinnyris chalybeus**	++		
Cape White-eye *Zosterops pallidus**	C		
House Sparrow *Passer domesticus*	C		
Cape Sparrow *P melanurus**	C		
Pintailed Whydah *Vidua macroura*	C		
Cape Canary *Serinus canicollis*	C		
Whitefronted Plover		1.9	+
Chestnutbanded Plover			+
Kittlitz's Plover	6.7	33.4	+
Threebanded Plover	3.3	4.2	0.6
Greater Sandplover			+
Grey Plover		1.9	+
Blacksmith Plover	36.0	7.8	2.1
Turnstone		0.3	+
Terek Sandpiper			+
Common Sandpiper		+	+
Wood Sandpiper	2.0	0.7	0.1
Marsh Sandpiper	6.7	7.3	+
Greenshank	2.0	3.8	0.1
Curlew Sandpiper	15.0	272.6	0.6
Little Stint	3.3	82.4	2.6
Sanderling		3.9	+
Ruff	2.0	115.4	1.9
Ethiopian Snipe #	2.3	2.5	1.6
Bartailed Godwit		+	+
Curlew			+
Whimbrel		+	+
Avocet	33.3	76.9	7.0
Blackwinged Stilt	13.3	19.2	0.7
Water Dikkop #		0.2	+
Kelp Gull	66.7	36.8	12.9
Greyheaded Gull		0.1	0.7
Harlaub's Gull*	534.0	138.4	5.3
Caspian Tern		0.6	2.1
Swift Tern		0.9	5.0
Sandwich Tern		10.0	+
Common Tern		38.5	2.0
European Mallard			

(b) OTHER SPECIES (Continued)	Max.	Seas.	Br.
Arctic Tern			+
Whiskered Tern		+	+
Whitewinged Tern		30.9	0.1
Burchell's Coucal *	1.3	+	0.1
Marsh Owl		+	+
Pied Kingfisher	2.0	0.7	0.6
Giant Kingfisher	0.7		0.4
Halfcollared Kingfisher			+
Malachite Kingfinger #	0.7	0.1	0.4
Whitethroated Swallow	C	C	C
Brownthroated Martin	C	C	C
African March Warbler	C	C	C
African Sedge Warbler	C	C	C
Levaillant's Cisticola	C	C	C
Cape Wagtail	C	C	C
Cape Weaver *	C	C	C
Masked Weaver	C	C	C
Yellowrumped Widow	C	C	C
Red Bishop	C	C	C
Common Waxbill	C	C	C
TOTAL:	62	87	96

BREEDING SEASONS OF WATERBIRDS THAT BREED IN THE BLACK RIVER WETLANDS (FROM HOCKEY ET AL. 1989)

SPECIES	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	AP
Dabchick												
Grey Heron												
Purple Heron												
Blackcrowned Night Heron												
Little Bittern												
Egyptian Goose												
Yellowbilled Duck												
Redbilled Teal												
Cape Shoveller												
African Black Duck												
Africal Rail												
Black Crake												
Purple Gallinule												
Moorhen												
Redknobbed Coot												
Blacksmith Plover												
Ethiopian Snipe												
Blackwinged Stilt												
Water Dikkop												
Burchell's Coucal												
Pied Kingfisher												
Giant Kingfisher												
Malachite Kingfisher												
Whitethroated Swallow												
Brownthroated Martin												
African Marsh Warbler												
Cape Read Warbler												
African Sedge Warbler												
Lsvaillant's Cisticola												
Cape Wagtail												
Cape Weaver												
Masked Weaver												
Red Bishop												
Yellowrumped Widow												
Common Waxbill												

The main diets of waterbirds at the Black River wetlands (from Maclean 1984). Dominant dietary components are shaded black.

SPECIES	Terrestrial vegetation	Aquatic vegetation	Terr/aerial invertebrates	Aquatic invertebrates	Amphibian	Fish	Rodents, reptiles etc
Dabchick							
White Pelican							
Whitebreasted Cormorant							
Reed Cormorant							
Darter							
Grey Heron							
Blackheaded heron							
Purple Heron							
Great White Egret							
Little Egret							
Yellowbilled Egret							
Cattle Egret							
Blackcrowned Night Heron							
Little Bittern							
Hamerkop							
Sacred Ibis							
Glossy Ibis							
African Spoonbill							
Greater Flamingo							
Fulvous Duck							
Egyptian Goose							
Yellowbilled Duck							
Cape Teal							
Redbilled Teal							
Cape Shoveller							
African Black Duck							
Southern Pochard							
Spurwinged Goose							
African Marsh Hamer							
African Rail							
Black Crake							
Purple Gailinule							
Moorhen							
Redknobbed Coot							
Ringed Plover							
Kittlitz'sPlover							
Threebanded Plover							
Blacksmith Plover							
Common Sandpiper							
Wood Sandpiper							
Marsh Sandpiper							
Greenshank							
Curlew Sandpiper							
Little Stint							
Puff							
Ethiopian Snipe							
Avocet							
Blackwinged Stilt							
Water Dikkop							
Kelp Gull							
Hartlaub's Gull							
Common Tern							
Swift Tern							
Whitewinged Tern							
Burchell's Coucal							
Pied Kingfisher							
Giant Kingfisher							
Malachite Kingfisher							
Whitethroated Swallow							
Brownthroated Martin							
African Marsh Warbler							
Cape Reed Warbler							
African Sedge Warbler							
Lavaillant's Cisticola							
Cape Wagtail							
Cape Weaver							
Masked Weaver							
Red Bishop							
Yellowrumped Widow							
Common Waxbill							

ANNEXURE 2f

Habit preferences of waterbirds at the Black River wetlands, for foraging (F), roosting/loafing (R) and nesting (B).

'+' denotes brids which use the area only as a flight path.

SPECIES	Deep Water	Shal-low Water	Open Shore	Low Marsh	Tall Emergents	Aerial Over Water	Grass/bush Near Water
Dabchick	F B	F B					
White Pelican	F		R				
Whitebreasted Cormorant	F		R				
Reed Cormorant	F	F	R				
Darter	F		R				
Grey Heorn		F	R	F	R		
Blackheaded Heron							F
Purple Heron					F R B		
Great White Egret	F						
Little Egret		F			R		
Yellow-billed Egret				F			
Cattle Egret					R		F
Blackcrowned Night Heron			R	F	R B		
Little Bittern			F		F R B		
Hamerkop		F					
Sacred Ibis		F		F	R		F
Glossy Ibis			F	F	R		
Spoonbill		F					
Greater Flamingo		F					
Fulvous Duck	F	F					B
Egyptian Goose			R				B
Yellowbilled Duck	F	F	R	R			B

SPECIES	Deep Water	Shal-low Water	Open Shore	Low Marsh	Tall Emergents	Aerial Over Water	Grass/bush Near Water
Cape Teal	F	F	R	R			
Redbilled Teal	F	F	R	R			B
Cape Shoveller	F	F	R				B
African Black Duck	F		R				B
Southern Pochard	F						B
Spurwinged Goose			R	R			
African Marsh Harrier			R		F B		
African Rail				F	F B		
Black Crake					F B		
Purple Gallinule		F		F	F B		
Moorhen	F	F			F B		
Redknobbed Coot	F B	F B			F B		
Ringed Plover							F R
Kittlitz's Plover			F R				
Threebanded Plover			F				F R
Blacksmith Plover			F R				
Common Sandpiper			F R	R			F
Wood Sandpiper			F	R			
Marsh Sandpiper			F	R			
Greenshank			F	R			
Curlew Sandpiper			F				
Little Stint			F R				
Ruff			F R	R			
Ethiopian Snipe			F	F B			
Avocet		F					
Blackwinged Stilt		F	R				
Water Dikkop			R				F
Kelp Gull			F				R
Greyheaded Gull			R				R
Hartlaub's Gull			R				R
Common Tern			R			+	
Swift Tern						+	
Whitewinged Tern						F	
Burchell's Coucal					F B		
Pied Kingfisher	F	F					

SPECIES	Deep Water	Shal-low Wate r	Ope n Shor e	Low Mars h	Tall Emergent s	Aerial Over Water	Grass/bush Near Water
Giant Kingfisher	F	F					
Malachite Kingfisher	F	F					
Whitethroated Swallow						F	
Brownthroated Martin						F	
African Marsh Warbler					F B		F
Cape Reed Warbler					F B		
African Sedge Warbler					F B		
Levaillant's Cisticola				F B	F		F B
Cape Wagtail			F	F B			F
Cape Weaver					B		F
Masked Weaver					B		F
Red Bishop					B		F
Yellowrumped Widow					B		F
Common Waxbill				F			

ANNEXURE 2g

Waterbird species richness and abundance in different parts of the Black River wetlands (Max., C = common but not counted, ++ = recorded), VW = Valkenberg wetland, LR = Liesbeek River, LL = Liesbeek Lake, OL - Old Liesbeek, LC = Liesbeek Canal, BR = Black River, RN = Raapenberg North, RS = Raapenberg South, RE = Rappenberg East, PW - Pallotti wetlands.

WATERBIRD SPECIES	VW	LR	LL	OL	LC	BR	RN	RS	PW
Dabchick	6		4	1		6	6	2	6
White Pelican			12		3	2	5		
Whitebreasted Cormorant	1		6		20	10	4	1	8
Reed Cormorant	6		8	6	12	7	8		4
Darter	2		1	2	6	4	12		2
Grey Heron	7		1	1	4	4	12	++	4
Blackheaded Heron	2			1	3	1	3		4
Purple Heron	1		1	++			2		1
Great White Egret	++				4	1	2		++
Little Egret	1		6	6	6	1	4		7
Yellowbilled Egret	1		++	1	20		++		++

Cattle Egret			C		3		10		8
Blackcrowned Night Heron	25	1		1		1	6		12
Little Bettern	++								++
Hamerkop	2								
Sacred Ibis	2		15	1			8	1	10
Glossy Ibis	7						1	1	3
African Spoonbill	4						1	++	2
Egyptian Goose	2		5			7	20		4
Yellowbilled Duck	20			3	1	16	100		100
Cape Teal							10		++
Redbilled Teal	8			5		21	38		100
Cape Shoveller	1					14	35	40	40
African Black Duck	2	6					2		1
Southern Pochard	2						10		1
Spurwinged Goose	++								
African marsh harrier							1		1
Purple Gallinule	2		1	1	2	1	3	3	8
Moorhen	6		2	6	1	6	6	4	6
Redknobbed Coot	12	1	6	6	3	163	80	10	26
Ringed Plover							2		
Kittlitz's Plover							++	++	++
Threebanded Plover						2	++	++	++
Blacksmith Plover	6	2	20	2		6	71	1	30
Wood Sandpiper							2		1
Marsh Sandpiper							2		++
Greenshank						2	1		++
Curlew Sandpiper						40	45		++
Little Stint							10		++
Ruff						4	4		++
Ethiopian Snipe						5	7		3

Avocent						60	31	++	30
Blackwinged Stilt	6					30	22	++	20
Kelp Gull			200						50
Hartlaub's Gull			1602			3	200		50
Hartlaub's Gull									1
Burchell's Coucal	2			2					3
Pied Kingfisher				2	2	2	4	1	
Giant Kingfisher			1	2	1		2		
Malachite Kingfisher		++	++	3	1				
Whitethroated Swallow	++		++	++		4	++	1	4
Brownthroated Martin	++		++	++			++	++	++
African Marsh Warbler						1	1		1
Cape Reed Warbler	C	1			1		10	C	C
African Sedge Warbler	C			C			12	C	C
Levaillant's Cisticola	C	C	C	C	C	C	C	C	C
Cape Wagtail	++		1	++		1	1	++	6
Cape Weaver	C	C		C		C	C	C	C
Masked Weaver	++			C		C	C	C	C
Red Bishop							++	C	C
Yellowrumped Widow				++		C	++		C
Common Waxbill						C	20	C	C

ANNEXURE 4 EXAMPLES OF CONSTITUTIONS

05\05\2000

CONSTITUTION OF THE WESTERN ENVIRONMENTAL COMMUNITY FORUM (WECF)

1. NAME:

The name of the Association is the Western Environmental Community Forum (hereinafter referred to as the WECF).

2. REGISTERED OFFICE:

The registered office of the WECF is located within the boundaries of the western demarcated regions of the Greater Johannesburg Unicity.

3. AREA OF OPERATION:

The WECF confines its activities to the western areas under the jurisdiction of the regional authorities of the Greater Johannesburg Unicity. This incorporates the surrounding areas which includes the cultural and recreational highlights within a central area of influence. However, the WECF may change its boundaries of operation if deemed necessary.

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4. DEFINITION OF THE ENVIRONMENT:

The National Environmental Management Act (Act 107 of 1998) for South Africa defines the term environment as follows:

" The word environment refers to the conditions and influences under which any individual or thing exists, lives or develops. These conditions and influences include:

- The natural environment including renewable and non-renewable natural resources such as air, water, land and all forms of life
- The social, political, cultural, economic, working and other factors that determine people's place and influence on the environment
- Natural and constructed spatial surroundings, including urban and rura

landscapes and places of cultural significance, ecosystems and the qualities that contribute to their value.

Culture, economic considerations, social systems, politics and value systems determine the interaction between people and the environment, the use of natural resources, and the values and meanings that people attach to life forms, ecological systems, physical and cultural landscapes and places. People are part of the environment and are at the centre of concerns for its sustainability. "

5. VISION:

The vision of the WECF is to change positively the attitudes of the individuals in the community, encompassing the private and public sector of the western demarcated regions of the Unicity and surrounding areas (approximately 50 km radius incorporating the cultural heritage and recreational highlights), towards the environment. The word environment refers to the conditions and influences under which any thing or individual exists, lives or develops.

6. MISSION:

The mission of the WECF is to create a positive consciousness of the environment and all forms of environmental influences. These include influences that affect people and their needs. This includes the natural environment, safety and security thereof, health, social, cultural, technological, natural and economic variables. The aim is to preserve and beautify the environment in order to ensure quality of life for all stakeholders of the demarcated Unicity regions and identified surrounding areas with their cultural and recreational highlights which includes the development of tourism.

7. PHILOSOPHY:

The WECF has the philosophy of encouraging as many organisations and individuals in the community area of influence stipulated, to take hands and create environmental awareness within the community. To be representative, numbers of members standing together should be large enough to create collective representation for this vision. To encourage a standing together, mutual benefits must be offered to members by the WECF and between members of the WECF, so that a strong representative body can be formulated.

8. GUIDING PRINCIPLES:

The following principles, derived from the National Environmental Management Act (Act 107 of 1998) shall guide the functions and activities of the WECF:

8.1 The principle of quality of life for all in their daily living and working environment.
8.2 The principle of equitable access to land and natural resources.
8.3 The principle of the integration of economic development, social justice and environmental sustainability.
8.4 The principle of more efficient use of energy resources.
8.5 The principle of sustainable use of social, cultural, economic, technological and natural resources.

9. ROLE OF THE WECF:

9.1 To bring stakeholders together with regard to an active participation in addressing environmental management within the western region.

9.2 To provide input and guidance with regard to integrated environmental management within the western region.

9.3 To provide input and guidance with regard to sustainable development and planning within the western region.

9.4 To monitor activities related to the development of environmental management initiatives in an area of influence.

9.5 To initiate programmes and projects, to promote environmental awareness and sustainable development.

9.6 To engage communities and other stakeholders in programmes and projects.

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10. AIMS AND OBJECTIVES :

The general aim of the WECF is to promote and ensure sustainable development based on integrated and co-ordinated environmental management within the western region.

The following key objectives are relevant:

10.1 To ensure the development and implementation of integrated environmental management systems in both public and private sector.

10.2 To ensure that public awareness and education programmes relating to integrated environmental management is developed and implemented.

10.3 To identify and develop structures, processes, procedures and programmes to ensure effective and appropriate participation in environmental governance.

10.4 To promote better understanding of sustainable development amongst all stakeholders within the western region.

10.5 To monitor and report on the state of the environment within the western region.

10.6 To initiate and develop mechanisms to enhance communication and information dissemination amongst all stakeholders, interest groups, organisations and individuals.

10.7 To mobilise financial and physical assistance for the purpose of achieving the objectives of the WECF.

10.8 To encourage the local authority, business sector and other organisations and institutions to participate in the activities of the WECF and to support it financially.

11. MEMBERSHIP AND VOTING RIGHTS :

The following organisations and persons may become members of the Forum :

A. AFFILIATE MEMBERS :

The following community organisations amongst others to be invited as affiliate members are :

- Local Authorities
- Community Welfare Organisations
- Community Organisations representing the business sector
- Educational Institutions
- Environmental Management Organisations
- Recreational Entertainment and Cultural Organisations
- Organisations representing different forms or technological advancements such as engineering, production, manufacturing and information technology
- Publicity Associations and Local Community Media
- Other individuals or organisations not mentioned above who wish to apply for affiliate membership.

An individual representative, with the relevant qualifications, experience and expertise from such community organisations, who has been invited to affiliate to this Forum, may also be nominated for the Management Committee.

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B. CORPORATE MEMBER CATEGORIES :

Personnel size employed/contracted to an organisation is suggested for the measurement criteria of determining the following corporate categories. This includes : Permanent, Casual and Contract personnel.

SIZE OF CORPORATE CATEGORIES	SIZE OF STAFF	OTHER CRITERIA
1. Start up business	All sizes	< 12 months business
2. Micro	0 - 9 Staff	
3. Small	10 - 19 Staff	
4. Medium	20 - 49 Staff	
5. Large	50 - 99 Staff	
6. Macro	100 - 199 Staff	
7. Corporate	200 - 299 Staff	
8. Mega	300 –	

C. LIFE CORPORATE MEMBERS :

Life Corporate Members whose applications for membership are accepted and whose subscriptions are paid.

D. LIFE MEMBERS :

Life Members whose applications for membership are accepted and whose subscriptions are paid.

E. SCHOLARS AND FULL TIME STUDENTS :

Scholars and full time students whose applications for membership are accepted and whose subscriptions are paid.

F. INDIVIDUALS AND SCHOOLS :

Individual members including schools whose applications for membership are accepted and whose subscriptions are paid.

G. HONORABLE MEMBERS :

Members who are selected by the Management Committee on the grounds of their contribution towards the improvement of the environment and presented to the Annual General Meeting for consideration.

12. ENVIRONMENTAL VENTS:

Schedule of important dates of the Environmental Calendar for annual compulsory awareness events and activities in each strategic environmental community to be considered for projects by the WECF.

a.	World Wetlands Day	02 February
b.	National Water Week	22 March
c.	Social Upliftment day	16 April
d.	World Environment Day	05 June
e.	World Desertification Day	17 June
f.	World Population Day	11 July
g.	Arbor Day	03 September
h.	World Ozone Day	16 September
i.	World Habitat Day	03 October

j. National Marine Day 03 November

13. ENVIRONMENTAL CODE OF CONDUCT:

All prospective members, before applying for membership will be made aware of the WECF's ethical code of conduct which must be adhered to at all times. This code of conduct is as follows:

13.1 Accept the vision, mission, aims, guidelines, role and definitions as reflected in this constitution, concerning the conservation of the environment in all its forms and undertake to be totally aware thereof and conform thereto.

13.2 Stand for fair, equitable fair dealing, honesty, integrity, responsible behavior and reject all acts characterised by bad faith, deception, fraud, corruption, scams, oppression, conning or bribery.

13.3 Accept that representation of the products and services as mutual benefits offered by this WECF to its members should be truthfully made, scrupulously fulfilled and build sustained relationships with and between all community citizens, role players, interest groups, stakeholders and community organisations.

13.4 Undertake to avoid any untruthful or misleading statements in publicity or advertising, in all or any of its forms concerning the WECF or members thereof.

14. MEETING OF MEMBERS :

14.1 Annual General Meeting.

14.1.1 The members of the WECF meet annually at a place and time as decided upon by the Management Committee. The meeting shall be held within four months after the end of the WECF's financial year. Members are to be given at least 28 days notice of the meeting and a quorum shall be 7 members.

14.1.2 The aim of the meeting shall be to receive the President's report, to elect the Management Committee (every two years), to consider the financial report, to appoint the auditors for the Management Committee and to consider matters relating to the general activities of the WECF.

14.1.3 The members of the Management Committee shall be elected for a two year term of office. Half of the members of the Committee retire annually on a rotation basis, but will be eligible for re-election. The president shall serve a maximum period of two consecutive years. The first Managemen

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Committee elected after the establishment of the WECF shall determine which members are to retire in the first year after the election to commence the rotation basis.

14.2 Special General Meetings.

14.2.1 A Special General Meeting is held if considered necessary by more than half of the members of the Management Committee.

14.2.2 A minimum of ten members with voting rights may request a Special General Meeting. The Management Committee is compelled to convene such a meeting should such a written request, signed by a minimum of ten members, be lodged at the registered office of the WECF. A quorum shall be 25% of the total membership.

14.2.3 At a Special General Meeting annually the issue or issues for which the meeting had been convened shall be discussed.

14.2.4 The notice of the Special General Meeting shall apply mutatis mutandis to the Annual General Meeting as per section 34.2.1. The notice shall stipulate those matters to be discussed.

14.3 Voting Procedures at General Meetings.

14.3.1 Voting shall be by a show of hands except where members request a secret ballot.

14.3.2 The President shall have a deliberate and in the case of cessation of votes a casting vote except where voting refers to persons. In the event of a second cessation of votes over a person it will be decided by lot.

15. MANAGEMENT OF THE WECF:

15.1 The management and control of the WECF is vested in the Management Committee. It will have the power to appoint such officers and staff, and appoint or establish such sub-committees and working groups, as it deems fit, and to delegate appropriate responsibilities, authority and powers to them. Similarly, it will have the power to dissolve any sub-committee or body, or dismiss or terminate the appointment of any employee, which or whom it has appointed.

15.1.1 The Management Committee shall consist of :

- One representative appointed by and from within the Councils, of the

local authorities within the WECF area of operation.

- A maximum of 12 other persons, elected at an Annual General Meeting, from members of the WECF.

15.1.2 The Management Committee meets at least ten times per year to consider all matters concerning the activities of the WECF, to consider action plans for the following action period, to approve payments and to transact any other matters of importance deemed necessary by the Management Committee.

15.1.3 The Management Committee shall at its first meeting after having been elected, which will be held within 7 days of the Annual General Meeting, elect a President and a Vice-President and other office bearers.

15.1.4 If the President is not present or unable to preside the Vice-President shall take the chair. If the Vice-President is also not available, the meeting shall elect a Chairperson.

15.1.5 The quorum of the Management Committee shall be 7 members present.

15.2 The Management Committee will establish such activity targets and publish such detailed operating instructions, as it deems necessary for effective control and administration.

15.3 No Management Committee Member may vote on any issue where a vested interest lies or take part in discussions held around areas of vested interest or benefit.

15.4 Funds available for investment may be invested only with registered financial institutions as defined in section 1 of the Financial Institutions Investment of Funds Act, 1984 or in the acquisition of securities listed on a licenced stock exchange as defined in the Stock Exchange Control Act, 1985.

16. POWERS AND DUTIES OF THE MANAGEMENT COMMITTEE:

16.1 To carry out the objectives of the WECF.

16.2 To raise funds for this purpose.

16.3 To receive, hold, invest and dispose of monies and gifts in the best interest and to the benefit of the WECF.

16.4 To open bank accounts for the investment of funds and for administering dail

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operations. The signatories to the account shall be the President and one other member of the Management Committee, unless other arrangements are made by the Management Committee.

16.5 To appoint and dissolve sub-committees.

16.6 To exercise the powers of co-option.

17. DISQUALIFICATION OF MEMBERS OF THE MANAGEMENT COMMITTEE

A member of the Management Committee shall vacate office if he or she :

17.1 Fails to attend three consecutive Management Committee Meetings.

17.2 Ceases to be an appointed representative or organisation, unless the Management Committee decides to retain him/her as an individual member of the Management.

17.3 Resigns his/her office by notice in writing to the President.

17.4 Is removed by a resolution in writing by a two thirds majority of the members of the Management Committee.

18. RECORDS AND FINANCIAL STATEMENTS :

18.1 The financial year of the WECF shall end at the last day of February of each year.

18.2 The Management Committee will accept a specific fiduciary responsibility for the accurate control of funds and for absolute accountability to it's members, its donors and its affiliated bodies.

18.3 The Treasurer or a competent person duly authorised and appointed by him/her shall receive all monies payable to the WECF and is authorised to pay out of the funds of the WECF any expenditure which may be reasonably incurred in giving effect to its objects and which has been approved by the Management Committee.

18.4 The Treasurers signature on cheques must be accompanied by the signature of two (2) other persons appointed by the Management Committee.

18.5 In the absence of the Treasurer, the signature of the President of Vice President of the Management Committee and one other person of the Management Committee shall suffice.

18.6 The Treasurer shall ensure the keeping of a proper set of books for the WECF which shall include all records required by the Auditors.

18.7 The Treasurer will be responsible for drawing up the operational Annual Budget, for ensuring that financial targets are met, for preparing financial reports for the Committee meetings and for presenting appropriate Statements of Accounts and Balance Sheets to General Meetings of Members.

19. DISSOLUTION :

The WECF may be dissolved at any time by a two thirds majority resolution of the members present at a General Meeting.

Funds of the WECF at the time of dissolution shall be utilised as follows :

(i) By means of a majority decision be transferred to another organisation actively involved in similar objectives.

(ii) Should there be no other organisation with similar objectives in existence, then the funds are paid over to a worthy organisation to be decided upon by the General Meeting.

(iii) The funds are to be spent within the Western Metropolitan area only.

20. LIABILITY OF MEMBERS :

Liability of members towards the commitments of the WECF is restricted to the annual membership fee.

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21. SECRETARIAT :

21.1 A secretariat is to be appointed by the WECF, until an administrative office for the daily operating of the WECF has been established.

21.2 The WECF at an Annual General meeting shall decide on the way minutes of its meetings are to be kept and on other administrative matters and procedures incidental thereto.

21.3 The secretariat shall in good time mail to each member to his/her last known postal address, or by such means as the WECF may from time to time determine, a written notice setting out the time, date and place of each meeting, the matters to be

considered at the meeting and any other information if deemed necessary to enable a member to prepare for a meeting.

22. NEGOTIATION IN GOOD FAITH :

The members of the WECF shall in the event of any disputes arising as to the implementation or interpretation of this agreement or from the recommendations or findings of the WECF on any matter relating to the issues currently or in future to be considered by the WECF, make every effort to resolve them by negotiating in good faith.

CONSTITUTION OF THE KEEP ROODEPOORT BEAUTIFUL ASSOCIATION

1. NAME:

The name of the Association is the Keep Roodepoort Beautiful Association (hereinafter referred to as the Association).

2. REGISTERED OFFICE:

The registered office of the Association is within the municipal boundaries of Roodepoort.

3. OBJECT OF THE ASSOCIATION:

The object of the Association is to positively change the attitude of the public of Roodepoort towards the environment, create a consciousness of littering and other forms of pollution so that littering is rejected as anti-social behaviour, to keep the environment clean, to preserve and beautify it in order to ensure quality of life for each member of the public.

4. ACTIVITIES:

To reach its objectives the Association envisages inter alia the following activities:

4.1 To make the public aware of the environment on a broad basis, and to motivate, co-ordinate and lead the public in complying with the abovementioned objectives.

4.2 To implement and maintain the Clean Community System as approved by Keep South Africa Beautiful (incorporated association not for gain) and registered by the Registrar of Companies under No 78 04922/08, within the areas under the jurisdiction of the City Council of Roodepoort.

4.3 To create awareness and sensitivity for the negative impact of littering and pollution on the community of Roodepoort, to make the community aware of the effect of littering on the quality of life and to convince each individual that he/she has a contribution to make in the struggle against littering or pollution and towards the creation of a tidy environment.

4.4 To secure co-operation from organisations and individuals in the community in reducing littering and pollution.

4.5 To educate all levels of the community as to the contribution each can make towards the reduction of litter and pollution.

4.6 To organise campaigns which will ultimately involve every member of the community in working together to achieve the object of the Association explained under point 3.

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4.7 To mobilise financial and physical assistance for the purpose of achieving the objectives of the Association.

4.8 To encourage the local authority to participate in the activities of the Association and to support it financially.

5. AREA OF OPERATION:

The Association confines its activities to the areas under the jurisdiction of the local authority of Roodepoort. The Association shall not operate outside its defined areas without the prior approval of Keep South Africa Beautiful.

6. MEMBERSHIP AND VOTING RIGHTS:

6.1 The following organisations and persons may become members of the Association:

A. Nominated Members : Local Authorities; Cultural Organisations, Service Club and members serving on the Management Committee of Keep Roodepoort Beautiful Association, whose applications for membership are accepted. No membership fee is payable.

B. Corporate Members : Business, Industries and local branches of business associates whose applications for membership are accepted and whose subscriptions are paid. Membership fee is - 10 employees @ R50,00 p.a.
+ 10 employees @ R100,00 p.a.

C. Life Corporate Members whose applications for membership are accepted and whose subscriptions are paid. Membership fee : R500

D. Life Members whose applications for membership are accepted and whose subscriptions are paid. Membership fee : R100

E. Scholars and full time students whose applictions for membership are accepted and whose subscriptions are paid. Membership fee: R2.00 per annum.

F. Individual Members including schools whose applictions for membership are accepted and whose subscriptions are paid. Membership fee: R10.00 per annum.

6.2 The Association may from time to time at the Annual General Meeting amend a member's rights, privileges, membership or fees.

6.3 Every member shall have a vote.

7. MEETING OF MEMBERS:

7.1 Annual General Meeting.

7.1.1 The members of the Association meet annually at a place and time as decided upon by the Management Committee. The meeting shall be held within two months after the end of the Association's financial year. Members are to be given at least 28 days notice of the meeting and a quorum shall be 10 members.

7.1.2 The aim of the meeting shall be to receive the chairman's report, to consider the financial report, to appoint the auditors for the Association, to elect members of the Management Committee and to consider matters relating to the general activities of the Association.

7.1.3 The members of the Management Committee shall be elected for a two year term of office. Half of the members of the Committee retire annually on a rotation basis, but will be eligible for re-election. The Chairman shall serve a maximum period of two consecutive years. The first Management Committee elected after the establishment of the Association shall determine which members are to retire in the first year after the election to commence the rotation basis.

7.2 Special General Meetings:

7.2.1 A Special General Meeting is held if considered necessary by more than half of the members of the Management Committee.

7.2.2 A minimum of ten members with voting rights may request a Special General Meeting. The Management Committee is compelled to convene such a meeting should such a written request, signed by a minimum of 10 members, be lodged at the registered office of the Association. A quorum shall be 10 members.

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7.2.3 At a Special General Meeting only the issue or issues for which the meeting had been convened shall be discussed.

7.2.4 The notice of the Special General Meeting shall apply mutatis mutandis to the Annual General Meeting as per section 7.1.1. The notice shall stipulate those matters to be discussed.

7.3 Voting Procedures at General Meetings:

7.3.1 Voting shall be by a show of hands except where any member requests a secret ballot vote.

7.3.2 The Chairman shall have a deliberate and in the case of cessation of votes a casting vote except where voting refers to persons. In the event of a second cessation of votes over a person it will be decided by lot.

8. MANAGEMENT OF THE ASSOCIATION:

8.1 The management and control of the Association is vested in the Management Committee.

8.1.1 The Management Committee shall consist of:

One representative each, appointed by and from within the Councils, of the local authorities within the Association's area of operation.

A maximum of 10 other persons, elected at an Annual General Meeting, from the members of the Association.

8.1.2 The Management Committee meets at least three times per year to consider all matters concerning the activities of the Association, to consider the actions plans for the following action period, to approve payments and to transact any other matters of importance deemed necessary by the Management Committee.

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8.1.3 The Management Committee shall at its first meeting after having been elected, which will be held within 28 days of the Annual General Meeting, elect a Chairman and a Vice-Chairman and other office bearers.

8.1.4 If the Chairman is not present or unable to preside the Vice-Chairman shall take the chair. If the Vice-Chairman is also not available, the meeting shall elect a Chairman.

8.1.5 The quorum of the Management Committee shall be a majority of the members.

9. POWERS OF THE ASSOCIATION:

9.1 The powers of the Association is restricted in accordance with the general policy and affiliated requirements of the Keep South Africa Beautiful Association.

9.2 The Association shall at all times comply with the principles of the Clean Community System and shall comply with the relevant guidelines compiled by Keep South Africa Beautiful.

10. DISQUALIFICATION OF MEMBERS OF THE MANAGEMENT COMMITTEE:

A member of the Management Committee shall vacate office if he or she:

10.1 Fails to attend three consecutive Management Committee Meetings without leave.

10.2 Ceases to be an appointed representative or an organisation, unless the Management Committee decides to retain him/her as an individual member of the Management.

10.3 Resigns his office by notice in writing to the Chairman.

10.4 Is removed by a resolution in writing by a two thirds majority of the members of the Management Committee.

11. RECORDS AND FINANCIAL STATEMENTS:

11.1 The financial year of the Association shall end on 31 March of each year.

11.2 The Association shall comply with the financial policy of the Keep South Africa Beautiful Association as stipulated from time to time.

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14. LIABILITY OF MEMBERS:

Liability of members towards the commitments of the Association is restricted to the annual membership fee.

DRAFT DOCUMENT FOR DISCUSSION PURPOSES ONLY

29 JULY 2002

DRAFT CONSTITUTION FOR ASSOCIATIONS

1 TITLE

The name of the ASSOCIATION shall be the .....
(hereinafter referred to as "the ASSOCIATION").

2 LEGAL STATUS OF THE ASSOCIATION

2.1 The ASSOCIATION is liable only for its own debts and any assistance granted to any person or body, whether corporate or un-incorporated, shall not render it liable for the debts of such person or body.

2.2 The ASSOCIATION may sue or be sued in the name of its Chairperson for the time being in any court of law in the Republic of South Africa. All processes of law, notices and the like shall be regarded as sufficiently served on the ASSOCIATION if served on the Chairperson personally.

2.3 The Chairperson shall not be personally liable for any loss suffered.

2.4 The area of operation of the ASSOCIATION shall be the area of .....
.....
(provide description of the area and where applicable a map of such area should be attached to this Constitution)

(hereinafter referred to as "the Area").

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3 SPECIFIC AIMS AND OBJECTIVES

The specific aims and objectives of the Association are as follows :

.....

.....

4 MEMBERSHIP

Membership of the ASSOCIATION shall be open to every member of the community within the Area over the age of 18 years.

5 ELECTION OF MEMBERS

5.1 An application for membership shall be made to the Secretary of the Association in writing on a prescribed form.

5.2 The Committee shall have the sole discretion to approve or reject an application for membership. If rejected the unsuccessful Applicant will have to right to request written reasons for refusal.

5.3 Immediately a member is elected the secretary shall enter the name in the register of members.

6 MEMBERSHIP FEES

6.1 Members shall pay a subscription fee of not less than R..... per member per annum.

6.2 Subscription fees shall be due and payable by a member on joining the ASSOCIATION. Thereafter subscriptions shall be paid annually in advance of the Annual General Meeting.

6.3 The annual subscription fee may be amended at an Annual General Meeting of the ASSOCIATION by a majority of members present.

6.4 No member shall be entitled to take part in or vote at any meeting including the Annual General Meeting or propose or second any resolution or propose or second any candidate for membership whilst in arrear with his or her subscription or any other liability to the ASSOCIATION.

7 LIABILITY OF MEMBERS

The liability of each member shall be limited to his/her subscription and to any other debt owing by such member to the ASSOCIATION.

8 SUSPENSION AND EXPULSION

8.1 Any member who breaches the Code of Conduct, or refuses or neglects to carry out any resolution duly passed by the Committee or who in the opinion of the Committee gives the ASSOCIATION a bad name, may either be suspended by the Committee for such period as it may determine, or may be expelled from the ASSOCIATION.

8.2 Written notice of suspension or expulsion shall be given to the member. In the notice of suspension or expulsion, it shall state which provision of this Constitution has been contravened by the member.

9 VOTING

Members shall be allowed to vote at any properly constituted general meeting. Members have to be present in person to vote.

10 RESIGNATION OF MEMBERSHIP

A member may resign from the ASSOCIATION at any time. Notice of resignation must be given in writing.

11 MANAGEMENT

11.1 The ASSOCIATION shall be administered by a Management Committee (referred to as the "Committee") consisting of at least the Chairperson, Deputy Chairperson, Secretary, Treasurer (hereinafter referred to as the "Office Bearers") and the members elected at the Annual General Meeting.

11.2 The Committee shall have the power and authority to act on behalf of the ASSOCIATION.

11.3 The Committee shall hold at least 10 meetings per annum.

12 DUTIES OF OFFICE BEARERS

12.1 The Chairperson

The Chairperson, as leader of the ASSOCIATION, chairs all the ASSOCIATION's meetings.

12.2 Deputy Chairperson

The Deputy Chairperson takes over the Chairperson's tasks and duties when the Chairperson is not there.

12.3 Treasurer

12.3.1 The Treasurer must keep a record of all the money that comes into the ASSOCIATION as well as what money is spent by the ASSOCIATION. The Treasurer must also keep an inventory of the assets.

12.3.2 Treasurers must ensure that all monies of the ASSOCIATION be timeously deposited into Bank Account.

12.4 Secretary

The Secretary is responsible for making sure that the ASSOCIATION's administration runs smoothly. The Secretary must keep proper records and minutes of all meetings as well as prepare and give notice of all meetings of the ASSOCIATION.

13 ELIGIBILITY OF OFFICE BEARERS FOR RE-ELECTION

At every Annual General Meeting, the Chairperson, Deputy Chairperson, Secretary and Treasurer (the Office Bearers), shall retire from office, but shall be eligible for re-election.

14 VACANCIES ON THE COMMITTEE

14.1 In the event of the death or incapacity of the Chairperson, the Deputy Chairperson shall become the Acting Chairperson.

14.2 The office of Deputy Chairperson shall be taken over by one of the other Office Bearers. Any other vacancies on the Management Committee shall be filled by co-option.

15 COMMITTEE MEMBERS ABSENT WITHOUT LEAVE

Any member of the Committee who is absent from more than two consecutive ordinary meetings of the Committee without notice shall cease to be a member; provided that the Committee may grant a member leave of absence from not more than three consecutive ordinary meetings of the Committee.

16 REGULATION OF QUORUM AT COMMITTEE MEETINGS

The Committee may meet together for the despatch of business, adjourn or otherwise regulate its meetings. A quorum shall be 50% plus 1 of the total membership of the Committee.

17 MINUTES OF MEETINGS

The Committee shall ensure that minutes are kept of all meetings. These minutes must record the date and place of the meeting as well as details of any decisions which were taken by the Committee.

18 GENERAL AND ANNUAL GENERAL MEETINGS

At least twice each year general meetings of the members shall be held within the Area. One of these meetings must be constituted as the Annual General Meeting. Copies of all accounts and reports of the ASSOCIATION must be available for inspection by the members and interested parties at the Annual General Meeting. Notice of any resolution to be proposed at the Annual General Meeting other than ordinary business must be lodged with the Secretary at least seven (7) days before the date fixed for such meeting.

19 NOTICE OF GENERAL AND ANNUAL GENERAL MEETINGS

Not less than fourteen (14) days written notice of the day, hour and venue of the General Meeting as well as the Annual General Meeting shall be given to each member.

20 SPECIAL GENERAL MEETING

The Committee may at any time call a Special General Meeting of members by giving not less than seven (7) days notice, specifying for what purpose the meeting is being called. The Committee shall in like manner call a Special General Meeting upon receipt of a requisition signed by fifteen (15) members of the ASSOCIATION specifying the purpose for which such meeting is to be called. Subject to the powers of the Committee, no business other than that specified shall be transacted at such meeting, but any resolution strictly relating to such business may be submitted to such meeting.

21 QUORUM AT GENERAL MEETINGS

A quorum for an Annual General Meeting or a Special General Meeting called by the Committee shall be fifteen (15) members. If there is no quorum within fifteen (15) minutes after the time fixed for the meeting, it will be postponed to the same day and hour of the following week and at such adjourned meeting the members present shall be deemed to be a quorum for the transaction of all business of the meeting.

In the case of a Special General Meeting, called by requisition of members, if no quorum be present, it shall be definitely dissolved.

22 VOTING AT ALL MEETINGS

Every question submitted to a meeting shall be decided by a show of hands, except where a majority of members call for a ballot. The Chairperson shall have a second or casting vote when the number of votes cast for and against are equal.

23 FINANCES

The ASSOCIATION must ensure that all funds are timeously deposited into a bank account in the name of the ASSOCIATION.

Any financial transaction shall require two of the three authorised signatories, one of whom must be either the Chairperson or the Treasurer.

24 CODE OF CONDUCT

24.1 The Code of Conduct shall be binding on all members and office bearers of the ASSOCIATION.

24.2 The following Rules of Conduct shall be observed :

(i) Members must at all times conduct themselves at meetings in a dignified and orderly manner. Any member who persists in conducting himself/ herself inappropriately must leave the meeting immediately when so ordered by the Chairperson.

(ii) All members and/or Office Bearers shall comply with the aims and objectives and the Constitution of the ASSOCIATION.

(iii) No member and/or office bearer of the ASSOCIATION shall conduct himself/herself in such a way as to bring the ASSOCIATION into disrepute.

(iv) No member and/or office bearer shall influence or attempt to influence the ASSOCIATION in its consideration of a decision on any matter before it so as to gain some direct or indirect benefit, whether in money or otherwise for himself or herself or any other person or body with whom or which he or she is associated.

(v) No member and/or office bearer of the ASSOCIATION shall directly or indirectly accept any gift, reward or favour whether in money or otherwise as a consideration for voting in a particular manner on any matter before the ASSOCIATION.

(vi) No member and/or office bearer shall use the office facilities and/or equipment of the ASSOCIATION for his or her personal use.

(vii) No member and/or office bearer of the ASSOCIATION will be allowed to carry or display firearms or weapons at any meeting.

25 AMALGAMATION AND DISSOLUTION

25.1 The ASSOCIATION may enter into partnership or amalgamate with any entity or ASSOCIATION with the same or similar objects. The movable property of the ASSOCIATION may be sold and the ASSOCIATION wound up, or reconstructed, by the resolution of the majority of not less than two-thirds of the votes of the members present in person at a Special General Meeting; provided, however, that not less than thirty (30) days special notice of the meeting to consider such question, of partnership, amalgamation, winding up or reconstruction shall be given and that such notice clearly sets forth the objectives of the meeting and provides further that no less than 20% of members eligible to vote shall be present at any such meeting.

If at any meeting properly called, as aforesaid, the requisite number of members shall fail to attend, then the meeting shall stand adjourned to the same time and place in the next following week. Special notice of the adjourned meeting shall be given by the Secretary and at such adjourned meeting any member or members present shall be deemed to be a quorum and shall have full power to act.

25.2 If upon dissolution of the ASSOCIATION, there remain any assets whatsoever after the satisfaction of all its debts, liabilities and obligations, such assets shall not be paid to or distributed among its members, but shall be given to a similar public organisation operating in the Area or to such body/bodies as may be decided by the Director of Fundraising in the event of the members of the ASSOCIATION being unable to agree upon an appropriate organisation.

.....
CHAIRPERSON
Date :

.....
GENERAL SECRETARY
Date :

PLACE WHERE THIS CONSTITUTION WAS ADOPTED : .....

DATE ON WHICH THIS CONSTITUTION WAS ADOPTED : .....

5.3. The EAC shall elect a chairman at the first meeting and as often as the office of chairman shall become vacant. If the chairman of the EAC is not present at the meeting, the members of the EAC shall elect one of their number to act as chairman for that meeting.

5.4. The EAC shall elect a secretary at the first meeting and as often as the office of secretary becomes vacant. If the secretary of the EAC is not present at any meeting, the members of the Committee present shall elect one of their number to act as secretary for that meeting.

5.5. The secretary shall keep the minutes of every meeting to be circulate to all members of the EAC prior to the following meeting. Minutes from the previous meeting are to be confirmed as correct at the start of each meeting.

5.6. The EAC shall hold such meetings as it may deem fit and may adjourn a meeting from time to time, provident that it shall meet at least once every three months. The EAC shall control and regulate its meetings in such a way as it may deem fit.

5.7. All questions before a meeting of the EAC shall be decided by the majority of the members voting thereat and in the event of an equality of votes the Chairman shall have a casting vote in addition to his deliberative vote.

5.8. The EAC shall decide the date, place and hour of the next meeting of the EAC at each meeting, failing which the chairman shall so decide.

5.9. The secretary shall at least 7 days before a meeting of the board notify all members of the place, date and hour of such meeting.

5.10. 40 % of the members of the EAC shall form a quorum and no business shall be transacted unless the quorum is present

6. Disqualification of Members of the EAC

6.1. A member of the EAC who is absent without leave of the EAC from 3 consecutive meetings of the EAC shall cease to be a member of the EAC unless the EAC at the following meeting condones such absence; provided that such person may be re-appointed as a member of the EAC.

6.2. Any member of the EAC who desires to resign there from shall lodge his resignation in writing to the secretary of the EAC.

7. Amendments to Constitution

7.1. All members of the EAC are to be notified of any proposed changes to this Constitution

7.2. An amendment to the constitution must be approved by a two-thirds majority of those present at the EAC meeting following notification of the proposal.

7.3. The authorizing agencies are to be notified in the event of any changes to the constitution.

TWO RIVERS' URBAN PARK ASSOCIATION AND MANAGEMENT ADVISORY COMMITTEE

Constitution approved by the City of Cape Town Council on DDMMCCYY

PREAMBLE

The Two Rivers' Urban Park Management Advisory Committee shall act in accordance with the Social Contract accepted at the public meeting held on 19 October 1999, which states:

The community recognizes its responsibility to present and future generations to manage and sustain the Two Rivers' Urban Park through the cooperation of all sectors and based on these founding principles:

- *A vehicle shall be established to manage the Park and determine the best method of lease or freehold principles, including land swops or transfer of development rights, and shall put in place properly measured phases.*
- *Such a body shall establish the optimum way of ensuring long-term sustainability. This includes accepting principles on initial capital contributions, annual operational contributions in cash or in kind, public subsidy, philanthropy, and hire or lease.*
- *All precincts shall adhere to an ethic of cohesion and common identity as part of the Urban Park.*
- *Due process shall be recognized, followed and implemented.*
- *Management and usage shall be innovative and forward thinking.*
- *Integrated management and development principles shall pertain to the sustainability of resources and materials, specifically with regard to water, power and waste.*
- *There shall be recognition of social responsibilities with regard to the institutional heritage of the site, the potential contribution of Nongovernmental Organisations and Community Based Organisations, and the principles of empowerment and job creation for local and metropolitan communities.*
- *The built environment shall be considered within the context of the existing and demolished footprints and their bulk with due recognition of architectural and aesthetic considerations.*
- *Cognizance shall be taken of the cultural and social significance of all the recognized sites.*
- *The natural environment shall be conserved and rehabilitated through the fullest recourse to legal protection and environmental management principles.*
- *Integrated water catchment management principles should inform appropriate usage and development below the 1 in 50-year floodline.*
- *Safety and security shall be integral principles of all precincts.*
- *There shall be maximum public access where feasible.*
- *Transport management shall recognize the desirability of low traffic densities, minimal road networks and appropriate modes of transport.*

1 TWO RIVERS' URBAN PARK ASSOCIATION

The City of Cape Town Council shall establish the Two Rivers' Urban Park Association as a Section 21 company in consultation with the Western Cape Provincial Administration, bodies located within the precincts, local communities, community-based institutions, non-governmental institutions and environmental interest groups. Each body may nominate one or more representatives to the Association.

The Association's functions shall be:

- to monitor the implementation of Phase Two of the Management Plan drawn up by the Two Rivers' Urban Park Management Advisory Committee and approved by the City Council;
- to raise funds for the maintenance and development of the Two Rivers' Urban Park;
- to receive half-yearly reports from the Management Advisory Committee;
- to perform such other functions as the City Council or the Association may decide.

2 TWO RIVERS' URBAN PARK MANAGEMENT ADVISORY COMMITTEE

The Management Advisory Committee shall be named the Two Rivers' Urban Management Park Advisory Committee.

3 REGISTERED OFFICE

The Management Advisory Committee's registered office shall be in the Administration Building, Valkenberg Hospital, Observatory.

4 AREA OF OPERATION

The Advisory Committee's area of operation shall lie within the boundaries of the Two Rivers' Urban Park as shown in Figure 3 "Two Rivers Urban Park SDF and Phase 1 Management Plan: context" of the document "Two Rivers Urban Park Spatial Development framework and Phase 1 Management Plan", final draft, September 2002, published by the City of Cape Town, Cape Town Administration, Environmental Management Branch.

5 MEMBERSHIP

Members shall be:

The City Councillor for the area *ex officio*

One member and one alternate shall be elected by each precinct for two years with overlapping periods of membership

One member and one alternate shall be nominated by each of:

- the Provincial Administration of the Western Cape
- the Provincial Department of Health
- the Catchment Management Department
- the Environmental Management Department
- the Solid Waste Department
- the Roads and Stormwater Department
- the Cape Bird Club
- the Friends of the Liesbeek
- the Mowbray & Rosebank Residents' Association
- the Observatory Residents' Association
- the Pinelands Ratepayers' Association
- such other body as the City Council or the Association may decide

The Management Advisory Committee may co-opt one or more members without voting rights on the grounds of expertise or experience.

6 CHAIRMAN AND DEPUTY CHAIRMAN

The Management Advisory Committee shall at its first meeting elect the Chairman and the Deputy Chairman. Thereafter the Management Advisory Committee shall elect the Chairman and Deputy Chairman at its first meeting after each Annual General Meeting.

The Chairman shall have a deliberative and a casting vote.

7 CODE OF CONDUCT

Members must:

7.1 apply the founding principles of the Social Contract;

7.2 comply with the vision, philosophy, mission and guiding principles of the Management Advisory Committee;

7.3 respect the Chairman's rulings;

7.4 declare any personal or financial interest in an item or issue when it is before the Management Advisory Committee for consideration.

8 DISQUALIFICATION OF MEMBER

The Management Advisory Committee may suspend or disqualify any member who:

8.1 is absent from two or more consecutive meetings without leave of absence;

8.2 disregards the code of conduct.

9 VISION

The vision of the Management Advisory Committee shall be:

- to rehabilitate, protect, secure and enhance the biotic systems and ecological qualities of the Urban Park;
- to conserve the Urban Park's cultural landscape;
- to encourage environmental education and scientific research in and about the Urban Park;
- to maximize the opportunities for all people to gain from the Urban Park; and
- to promote sustainable development of the Urban Park.

10 MISSION

The mission of the Management Advisory Committee shall be to promote the Urban Park as a unique South African resource to benefit occupants, the people of Cape Town and visitors.

11 PHILOSOPHY

The Management Advisory Committee's philosophy shall be to encourage beneficial use of the Urban Park's resources in pursuit of enjoyment, education, research, relaxation, sustainable livelihoods and personal development.

12 GUIDING PRINCIPLES

These shall be the principles contained in the Social Contract set out in the Preamble.

13 FUNCTIONS OF THE MANAGEMENT ADVISORY COMMITTEE

The Management Advisory Committee's functions shall be:

13.1 to provide a forum in which stakeholders can raise issues affecting the Urban Park;

13.2 to draw up in consultation with the Association and other interested parties Phase Two of the Two Rivers' Urban Park Management Plan that will set out institutional arrangements and identify priority projects;

13.3 to comment to the City Council and/or the Association on plans and their proposed implementation for the operation, rehabilitation, restoration and development of the Urban Park, both natural and built;

13.4 to formulate annual capital and operating budgets for the Urban Park for the City Council's consideration;

13.5 to receive quarterly reports on management of the Urban Park in respect of:

- the rivers and wetlands
- recreation facilities
- access, uses and security
- development proposals
- infrastructural services
- human resources
- research, training and monitoring
- finance and marketing

for comment to the City Council and/or the Association;

13.6 to submit half-yearly reports to the Association;

13.7 to advise the City Council and the Association on any matters referred by these bodies to the Management Advisory Committee;

13.8 to set up temporary task groups that may include non-members to investigate and report on any matter affecting the Urban Park;

13.9 to perform other functions as decided by the City Council or the Association.

14 MEETINGS

The Management Advisory Committee shall meet at least quarterly. Agendas, reports, minutes and other papers relating to all meetings shall be sent to all members and Chairmen of non-governmental organisations nominating members within ten days of a committee meeting.

15 ANNUAL AND SPECIAL GENERAL MEETINGS

An Annual General Meeting shall be held at a place, time and date decided by the Management Advisory Committee within two months of the end of the City Council's financial year. It shall receive a report from the Chairman and the Treasurer, and consider matters relating to the management and planning of the Urban Park.

A Special General Meeting shall be held at the request of two-thirds of the members of the Management Advisory Committee.

16 SECRETARIAT AND RECORDS

The City Council shall fund a person to deal with the Management Advisory Committee's secretarial requirements, including keeping financial and other records.

17 FINANCIAL STATEMENTS

The Management Advisory Committee's financial year shall coincide with the City Council's financial year.

The Treasurer shall have fiduciary responsibility for the disbursement, control and reporting of funds.

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