**Final Draft**

# Macassar and Environs
# Spatial Development Plan
## Volume 1:
## Introduction, Context and Issues

**Ref: 1084**
**September 2002**

**Planning Partners**
**Cape Town**

# STRUCTURE OF DOCUMENT

The **Macassar and Environs Spatial Development Plan** comprises an executive summary and two volumes:

The **Executive Summary** is a synopsis of the Introduction, Development Challenges and the Spatial Development Plan Proposals.

**Volume one** (this document) contains the analysis and background of the Macassar and Environs Spatial Development Plan with regard to:

- The Public participation process;
- The legal framework;
- The contextual planning frameworks;
- The study area context; and
- The issues.

**Volume two** contains the proposals and recommendations that will guide future planning and development within Macassar and environs. The proposals consist of:

- The concept;
- Proposals for the various precincts;
- An environmental plan;
- Transportation plan; and
- Implementation proposals and recommendations.

# Table of Contents

## List of Figures

## List of Tables



## List of Acronyms

| | |
|---|---|
| CMA | Cape Metropolitan Area |
| DFA | Development Facilitation Act |
| DWAF | Department of Water Affairs and Forestry |
| IDF | Integrated Development Framework |
| IDP | Integrated Development Plan |
| MOSS | Metropolitan Open Space System |
| MSDF | Metropolitan Spatial Development Framework |
| NEMA | National Environmental Management Act, 1998 (No. 107 of 1998) |
| PGWA | Provincial Government Western Cape |
| RDP | Reconstruction and Development Programme |
| SAHRA | South African Heritage Resources Agency |
| TSDF | Tygerberg Spatial Development Framework |

## List of Annexures

# 1 Introduction

## 1.1 Purpose of the Report

Planning Partners were appointed in 1998 to review and update the draft Macassar and Sandvlei Structure Plans. The original Macassar plan was drafted in 1990 prior to the restructuring of local government and the incorporation of Macassar into the Helderberg Administration and prior to the proposed redevelopment of the Somchem/AECI land to the east of Macassar. The original planning aimed to develop Macassar in a north-south axis, which would have terminated at a planned railway station in the north. Due to the proposals for the development of the land to the east, the axis of Macassar's growth will change and the focus is now on the spatial and functional integration of Macassar, with the rest of the Helderberg basin.

The development Plan lays down the guidelines for the future spatial development of this area in such a way that it can grow and develop as an integral part of the Helderberg basin.

## 1.2 Study Area

The study area of the original plan was broadened to include the surrounding areas of Faure, Croydon, Firgrove and Donald Cook's Factory land. The study area boundary runs along Baden Powel Drive in the west, north of the railway line to include Faure, Croydon, and Firgrove, a section of the N2 forms the eastern boundary running in a southerly direction to the coast and the coast forms the southern boundary for a portion of the area. Refer to **Figure 1.1**

## 1.3 Public Participation Process

Despite attempts to encourage the community to participate in the planning process, the meetings have not been well attended. The first public meeting was held on 7 December 1998 (attended by 21 people), a second meeting was held on 8 May 1999 (15 people signed the register), which included a questionnaire requesting information from the community. A third meeting was held on 20 September 1999 (14 people signed the register), after which the community were given the opportunity to provide written comments on issues and any suggested strategies. There has been no response to the questionnaires handed out at any of the public meetings. The list of attendees, the pro forma questionnaires and a comments report are attached as Annexure A.

As part of a more focused consultative process, a series of bilateral meetings were held with stakeholders such as the RDP forum, the Taxi Association, the SA Police and surrounding landowners and industrialists.

As a result of a number of studies being undertaken within or in close proximity of the study area, a technical meeting was convened late 1999 of all consultants working on studies in the area. A subsequent meeting was held on 1 December 1999 with the authorities, consultants and the public, to explain to the public how the studies fit together and to ensure that an integrated approach was being followed.

**Figure 1.1: Study Area**

On 31 May 2002, an advert was placed in the District Mail, inviting interested and affected parties to attend an open day on 11 June 2002. In addition, interested parties that attended previous meetings, Government Departments, and local authority officials and councillors were individually invited to attend the open day and comment on the reports that were available in the local libraries and at the Local Authority. Eight people attended the open day and five written responses were received. Comment on responses is included as Annexure D.

# 2 Legal Framework

## 2.1 The Constitution

The Constitution (Act 108 of 1996), the Local Government Municipal Systems Act (Act 32 of 2000) and the Development Facilitation Act (Act 67 of 1995) define the powers and functions of local authorities to govern and to plan their jurisdictional areas.

The Constitution describes the objectives of local government as follows:

- to provide democratic and accountable government;
- to ensure the provision of services to communities in a sustainable manner;
- to promote social and economic development;
- to promote a safe and healthy environment; and
- to encourage the involvement of communities and community organisations in the matters of local government.

Development responsibilities of local government are also addressed in the Constitution:

- Local government is required to structure and manage administrative, budgeting and planning processes in such a manner as to prioritise the basic needs of the community, and to promote the social and economic development of the community.
- Local authorities are also required to participate in national and provincial development programmes.

## 2.2 Local Government Municipal Systems Act (Act 32 of 2000)

The Local Government Municipal Systems Act promotes the concepts of a developmental local government and developmentally orientated planning, whereby development is defined as:

‘Development - means sustainable development and includes integrated social, economic and environmental, spatial, infrastructural, institutional, organisational and human resources upliftment of a community aimed at –

- Improving the quality of life of its members with specific reference to the poor and other disadvantaged sections of the community; and

- Ensuring that development serves present and future generations.'

The Act requires that local authorities undertake developmentally orientated planning to ensure that the objectives of local government, as set out in section 152 of the Constitution, are achieved and to ensure that the municipality gives effect to its developmental duties. The Act provides the legislative framework that obliges municipalities to adopt a single, inclusive and strategic integrated development plan that *inter alia*:

- Links, integrates and coordinates plans and takes into account proposals for the development of the municipality;
- Aligns the resources and capacity of the municipality with the implementation of the plan;
- Forms the policy framework and general basis on which annual budgets must be based; and
- Is compatible with national and provincial plans and planning requirements binding on the municipality in terms of legislation.

## 2.3 The Western Cape Planning and Development Act (Act 7 of 1999)

The Provincial Government of the Western Cape (PGWC) has decided against the implementation of the DFA. Instead, the Province's planning legislation has been revised in order to provide for integrated development planning. Currently, urban planning actions are controlled by the Land Use Planning Ordinance (Ord. 15 of 1985). This legislation will be replaced by the Western Cape Planning and Development Act (Act 7 of 1999), which has been promulgated but not yet implemented. This act contains planning principles which are based on those of the DFA.

The said Act also makes provision for the replacement of structure plans with Spatial Development Plans. The purpose of spatial development plan is to propose spatial strategies, guidelines and development goals in support of the IDF; in order to guide the physical development of the area to which it relates. The provincial minister's powers, in approving a municipal development plans will be limited to ensure the following:

- That national and provincial policies and guidelines are adhered to;
- That an acceptable process which included public participation was followed;
- That objections by adjoining local authorities, public bodies and provincial or national departments have been adequately addressed; and
- That the development plan deals adequately with the prescribed subject matter of a development plan.

The Western Cape Planning and Development Act describes the purpose of a spatial plan as follows:

*"The general purpose of a spatial plan, as part of an integrated development framework, shall be to indicate the spatial implications of an integrated development framework and lay down strategies, proposals and guidelines for the future spatial*

*development of the area to which it relates (including, without being limited to, development objectives, proposals for land reform, urban renewal, reconstruction, integration, environmental planning, transport planning, infrastructural planning and urban design) so that the general principles in Schedule IV and the general well being of the particular community and orderly planning of the area are promoted in the most effective manner".*

The new integrated development process requires that all existing structure plans be reviewed. Integrated development plans will themselves have to be updated on an ongoing basis and must be revised every five to ten years.

## 2.4 National Environmental Management Act (NEMA) (Act 107 of 1998)

NEMA was promulgated to provide for co-operative environmental governance. It requires that national and provincial departments, exercising functions which may affect the environment, prepare an Environmental Implementation Plan every four years. Provinces must ensure that local authorities comply with provincial Environmental Implementation Plan.

## 2.5 Environment Conservation Act (Act 73 of 1989)

NEMA has repealed most of the Environment Conservation Act. However, sections 21, 22 and 26 and their associated regulations that cover environmental impact assessment and controls, remain relevant. Provision is made in the regulations for the control of activities that could have a detrimental impact on the environment.

## 2.6 National Water Act 1998 (Act 36 of 1998)

The provisions of this Act are aimed at achieving sustainable use of water for the benefit of all its users. Section 144 stipulates that the 1 in 100 year flood line must be indicated on township development plans, in order to inform the public of any risks.

## 2.7 National Heritage Resources Act (Act 25 of 1999)

Provision is made in this Act for local authorities to protect and manage conservation worthy places and areas. Section 31 places the duty on a local authority to investigate the need for the establishment of heritage areas whenever a spatial development framework is compiled. Before heritage status can be awarded, the local authority is required to consult with the South African Heritage Resources Agency (SAHRA), land owners and the affected community.

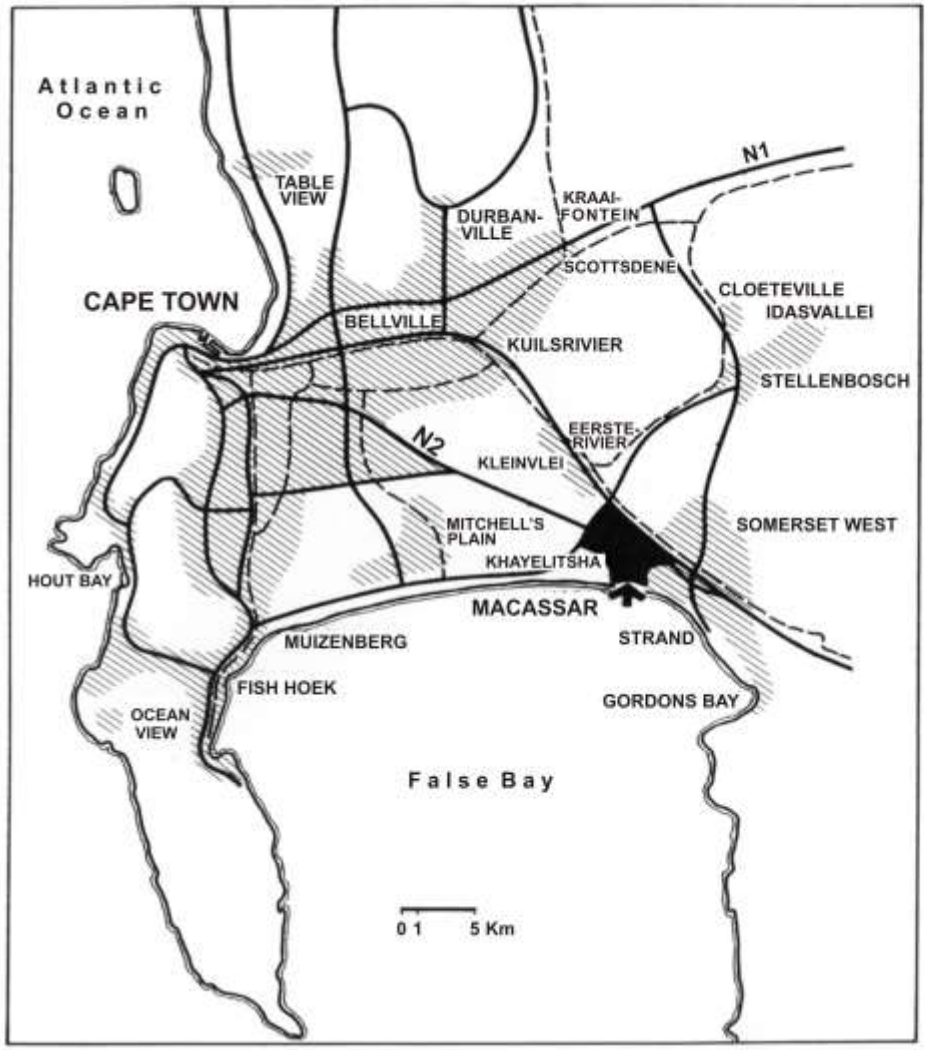
# 3 Planning Framework

## 3.1 Location

The study area is approximately 35km from Cape Town and 13km to the west of Somerset- West. The study area is bounded by Khayelitsha to the west, the R102 to the north and Somchem/AECI to the east. Refer to **Figure 3.1**. The Kuils River and the Eerste River form a confluence within the study area. On the eastern side the Moddergat Spruit flows southwards through the area and forms a confluence with the Eerste River where it flows southwards and into the sea. The N2 cuts through the study area and provides access to both the Cape Town CBD as well as Helderberg area, where many of the inhabitants of the study area work.

The study area is an integral part of the Cape Metropolitan Area, the Kramat is a destination point for the Muslim community, the area has many conservation worthy attributes and the Macassar Beach Resort is a regional recreational facility.

**Figure 3.1: Locality Plan**



## 3.2 Urban Structure Plans

### 3.2.1 Urban Structure Plan for the Cape Metropolitan Area: Volume 3 - Hottentots-Holland Basin

The Macassar and environs spatial development plan study area is covered to a large extent by this urban structure plan. **Figure 3.2** has reference. The urban structure plans for the Cape Metropolitan Area, although widely recognised as outdated, remain the statutory planning framework until it is replaced by another approved statutory planning document.

Volume 3 of the Urban Structure Plan designates most of the study area for urban development. This includes the Vergenoegd farmland and the land between the N2 and the railway line, and Faure and Firgrove. The draft Helderberg Structure Plan differs significantly in that the same land is designated as agriculture. The land where the Croydon township lies north of the railway line was excluded from the Urban Structure Plan. A portion of the land next to the Eerste River is reserved for recreation where earlier planning envisaged the establishment of a regional sports complex and other passive recreational activities. The land along the Kuils River is reserved for smallholdings, which accords with its historical use. The open space designation of the river courses is in line with the proposals for the Metropolitan Open Space System (MOSS) as defined in the Metropolitan Spatial Development Framework (MSDF).

At the time of publication, the Somchem/AECI land was still regarded as strategic industrial land and was thus indicated as such.

The Urban Structure Plan can justifiably be considered as outdated in respect of its land use designations as outlined above. This statement is supported by the determinations of the recent planning frameworks of the Metropolitan Spatial Development Framework and draft Helderberg Structure Plan.

The following guidelines given for the urban structure of the Hottentots-Holland Basin are nevertheless relevant:

- Due consideration must be given to the functional interaction between the Hottentots-Holland Basin and the Peninsula area, and the satellite towns of Stellenbosch and Paarl/Wellington;
- A compact urban structure with higher population densities should be aimed at;
- The protection of the area's natural assets and their judicious use for recreational and tourist facilities must be pursued at all times;
- The protection of good agricultural land should enjoy high priority;
- Places of historical interest should be preserved with an emphasis on preserving the character of historical buildings and areas; and
- The area's tourist potential should be developed in the interests of the Cape Metropolitan Area.

**Figure 3.2: Urban Structure Plan for the Cape Metropolitan Area: Volume 1 - Peninsula.**

Even though the land use designations of the Urban Structure Plan may be outdated, the guidelines outlined above are still relevant and have been incorporated in the recent planning documents in some form or another.

### 3.2.2 Urban Structure Plan for the Cape Metropolitan Area: Volume 1 - Peninsula.

The study area falls outside the boundaries of this plan. The adjacent area, which falls within the City of Tygerberg, has largely been designated for urban development, mostly for the extension of Khayelitsha. This has been under review in recent planning documents such as the Tygerberg Spatial Development Framework and the Macassar Dune Management Plan. The latter comments specifically on urban development in the Macassar dunes east of Baden Powell Drive.

The land along the Kuils River is reserved for open space. This is still relevant in terms of the MOSS.

## 3.3 Metropolitan Plans

### 3.3.1 Metropolitan Spatial Development Framework, 1996

In 1996 the former Cape Metropolitan Council published a Metropolitan Spatial Development Framework (MSDF), which provides direction for physical growth at metropolitan scale. (**Figure 3.3** has reference)

In recognition of the problems associated with the past patterns of development, the MSDF is an attempt to lay the basis for a new pattern of growth, with the main aim of creating growth opportunities for the historically disadvantaged.

Four main problem areas were identified:

- Low-density sprawl has encroached upon and destroyed large tracts of valuable agricultural and other natural resources.

- This traditional sprawl, in combination with past planning practices, has resulted in a city structured by an over-concentration of work opportunities in some areas and remotely located dormitory townships in others, resulting in large scale movement of people between their homes and workplaces.

- There is a severe inequality in the distribution of urban amenities, facilities and services. Most of the higher-order services are concentrated in Cape Town CBD and the northern and southern corridors, whereas the low-income areas on the Cape Flats and in the Metro South East are lacking in basic facilities and services.

- Previous transport policies emphasised private mobility rather than public transport, which further exacerbated the separation of activities and facilities.

In addressing these issues, the MSDF provides a range of spatial guidelines:

- Containment of urban sprawl;

- Intensification of urban development;

**Figure 3.3: Metropolitan Spatial Development Framework, 1996**

- Urban integration through the provision of housing close to existing economic, social and transportation opportunities, mixed-use development and an emphasis on public transport;

- Redressing imbalances in the location of employment opportunities, public facilities and housing;

- Developing quality urban environments; and

- Sustainable management of all urban resources.

The non-spatial guidelines of the MSDF are:

- People-driven development;

- Coordination of spatial, economic and social development policies;

- A focus on agreed development priorities, where development ensures that public resources are directed towards these (priority development) needs; and

- Linking planning and goal setting with ongoing budgeting and administration.

The spatial structure consists of four elements (The MSDF conceptually indicates the location of the structuring elements):

- Metropolitan Urban Nodes: Somerset West/Strand/Paardevlei (the latter being part of the AECI development framework) has been identified as a metropolitan node which has to be strengthened;

- Metropolitan Activity Corridors: Van Riebeeck Road from Kuils River to Faure (continuing into Somerset West/Strand although the alignment of the connecting route is still under discussion) has been identified as a corridor;

- A Metropolitan Open Space System (MOSS), which includes the lower reaches of the Kuils and Eerste River; and

- Urban Edges, including the Helderberg urban edge, which is intended to contain further urban sprawl.

### 3.3.2 Kuils River Moss Study, 1999

The former Cape Metropolitan Council commissioned a study to expand on the earlier Flood Management and Environmental Management Studies.

The following general proposals include:

- All land below the 1:50 year floodline should be proclaimed Public Open Space within the Metropolitan Open Space System;

- The possibility of establishing urban agriculture as a new land use zone should be investigated; and

- Joint venture river management bodies should be initiated between interested groups and the local authorities.

The following proposals are of relevance to the study area:

- The entire area along the Kuils River should be reserved for agriculture in order to consolidate the Sandvlei farming activities;
- Crops should be allowed on the flood plain to the north of the Zandvliet farmhouse, but only grazing to the south;
- The restoration of the Zandvliet farmhouse as an environmental centre should be investigated;
- The Madalabos informal settlement should be relocated to an appropriate site;
- Existing farmers should be allowed to relocate their dwellings out of the flood zone on higher ground abutting Macassar Road:
- Ensure the fitness of use of the water for recreation and consumption purposes;
- Implement recommendations of the Macassar Dune Management Plan in order to conserve the important dune ecosystem; and
- Ensure future integrity of estuary and surrounding area and monitor the water at the Eerste River mouth for fitness of use.

## 3.4 Sub-Regional Plans

### 3.4.1 Draft Helderberg Structure Plan, 1999

The former Helderberg Municipality prepared a Draft Helderberg Structure Plan as illustrated in **Figure 3.4,** the purpose of which is to provide a spatial framework and policies for the future physical development of the Helderberg Basin and is intended to "serve as a basis for the management of urban development and conservation" within the Helderberg Basin for the next twenty years. This plans has been referred to Province Government Western Cape for 4(6) approval.

The Helderberg structure plan identified the following principles as part of the vision, which must direct planning and growth in the Helderberg Basin:

- Sustainable economic growth and conservation measures;
- Vitality, prosperity and diversity in respect of economic growth, job opportunities and poverty reduction;
- Safety and comfort for all;
- An adaptable urban structure;
- Equal and affordable access to opportunities;
- Opportunities for education and training;
- Basic needs provision in respect of health, welfare and training;

**Figure 3.4: Draft Helderberg Structure Plan, 1999**

- Accountability and transparency in respect of decision-making processes;
- Effective application of all resources;
- Strengthen the uniqueness and beauty of the natural, historic and built environment.

The designation of land use in the Macassar study area is dominated by urban development (south of the N2) and agriculture (north of the N2 including the Vergenoegd farm). The land north of the N2 between Faure and Firgrove has previously been designated for urban development by the Urban Structure Plan as well as the draft Macassar and environs spatial development plan. The new approach is partly motivated by the future availability of approximately 1500 ha of land (for urban development) at the Somchem/AECI landholding, land which was previously inaccessible due to the manufacturing of explosives by both these industries. The river courses are designated as conservation-worthy areas. The historical smallholdings along the Kuils and Eerste River are maintained.

The township of Croydon which lies north of the railway line has however been designated for agriculture. Although this is in line with its current use, it does not conclude the argument in respect of the future of this approved township.

The alignment of the urban edge shown on the draft Helderberg Structure Plan differs from the proposal of Helderberg Urban Edge Study. A portion of land to the west of Kramat Road designated for urban development in the draft Helderberg Structure Plan is in conflict with the proposed urban edge which has been drawn along Kramat Road, excluding the land to the west thereof.

The proposals of the draft Helderberg Structure Plan reflect to a large extent the current thinking in terms of the future urban structure for the Helderberg basin. The bulk of urban development will be absorbed by the Somchem/AECI land. Furthermore, the Van Riebeeck activity corridor identified by the MSDF is proposed to culminate in the proposed node at the Somerset Mall. However, the plan does not show how the Van Riebeeck spine should link up with the proposed spine in the vicinity of Macassar Road.

The draft Helderberg Structure Plan puts forward a number of planning proposals, which are of significance to the Macassar community. These proposals are further expanded upon and reflected in the detailed structure plans for the Somchem and AECI land holdings.

The following is of significance to the Macassar and Environs study:

- With the Somchem and AECI industries being phased out and discontinued the opportunity arises for a more diverse land use structure including residential and commercial activities developing on the respective properties;
- This creates the opportunity for a more effective integration of Macassar with the urban fabric and socio –economic structure of the Helderberg area:
- An activity spine is proposed linking Macassar with a high intensity urban node, which is proposed to be developed around the Somerset Mall/Groot Paardevlei area on the eastern perimeter of the AECI land and which will establish a new focal point in the economic development of the Helderberg area.

### 3.4.2 Tygerberg Spatial Development Framework, 2000

The study area of the Macassar and environs spatial development plan borders on the jurisdictional area of the former City of Tygerberg, which has completed the Tygerberg Spatial Development Framework (TSDF). **Figure 3.5** illustrates the proposals. Areas of overlap include the following:

- The Kuils River system as part of the MOSS;
- The False Bay coastal zone including the Macassar dune system; and
- Baden Powell Drive as a scenic route.

The Spatial Development Framework emphasises the high conservation, scenic and tourism value of the False Bay coastal zone and that future development, in whatever form, should aim to enhance the conservation objectives for the area. The study notes that the Macassar Dune system is under pressure from development and mining operations. It proposes that linear development along the coastline should be avoided and that development in the coastal zone should be guided by an appropriate management plan such as the Dune Management Plan. One of the key projects identified is the need to provide legal protection and develop management plans for all areas of high conservation value, of which the Macassar Dune System, the river system and the wetlands, are included.

Thus, the overlap between the Tygerberg Spatial Development Framework and the Helderberg Structure Plan is focussed on the environmental issues pertaining to the coastal zone and river system that are the common link between the two areas. Furthermore, the TSDF reflects a fair amount of consistency with other planning studies regarding conservation aspects for the Macassar area.

### 3.4.3 Greater Blue Downs Spatial Framework Plan, 2000

The previous jurisdictional area of former Oostenberg Municipality also borders on the northwestern side of the study area. A Spatial Framework Plan for the Greater Blue Downs area has been compiled and has been approved by the Oostenberg Council in November 2000 in terms of Section 4 (10) of the Land Use Planning Ordinance, 1985.

The plan proposes a major industrial area around the National Accelerator Centre and CSIR campus, up to Baden Powell Drive (the interface with the Macassar and Environs SDF). The rest of the interface will consist of an extension of Eerste River South residential land and portions of agricultural use northeast of Van Riebeeck Road and south of Baden Powell Drive. These proposals are illustrated in. **Figure 3.6**

**Figure 3.5: Tygerberg Spatial Development Framework, 2000**

**Figure 3.6: Greater Blue Downs Spatial Framework Plan, 2000**

## 3.5 Local Structure Plans

### 3.5.1 Draft Macassar Structure Plan, 1990

The draft Macassar structure plan (Refer to **Figure 3.7**) was prepared at the time when the adjacent Somchem/AECI land was considered as strategic industrial land. There was no anticipation that the land would become available for any other form of urban development. Furthermore, Macassar was developed as a separate entity under the jurisdiction of the former Western Cape Regional Services Council. This situation, as well as the unavailability of the adjacent land holdings had a significant impact on the spatial structure proposed for the draft Macassar structure plan. The result was that the Macassar future spatial pattern was orientated on a north-south axis with urban growth generally directed northwards from the existing Macassar town. Growth over the long term would thus see the land between Firgrove and Vergenoegd farm become urbanised. A north-south central boulevard would have culminated at a planned new railway station in order to facilitate commuting.

The new situation in terms of the availability of the Somchem/AECI land for development, as well as the inclusion of Macassar within the jurisdiction of the former Helderberg Municipality has annulled the above scenario to the extent that the revision of the Macassar structure plan has become necessary. The opportunity arises to politically, socially and economically integrate Macassar into the Helderberg area. As new growth within the Helderberg western basin will mostly be accommodated on the Somchem/AECI land the axis of future development in Macassar must swing through $90^0$ to end up in an east-west orientation. The focus is now on the spatial and functional integration of Macassar with the rest of the basin through channelling growth through the Somchem/AECI land. The new approach has been incorporated into the draft Helderberg Structure Plan and thus necessitates the revision of the draft Macassar structure plan for reasons of consistency.

### 3.5.2 Draft Sandvlei Structure Plan, 1998

The Sandvlei and draft Macassar structure plans share the middle of the Eerste River as a common boundary of their respective study areas.

Several proposals are of relevance:

- The smallholdings along the river must be perpetuated while owners should be allowed to relocate their dwellings on the higher land closer to Macassar Road above the 50 year flood line;
- Limited low density residential development with smaller pockets of high density areas should be allowed to the south of Macassar Road;
- The area of the Kramat should be a special area with limited low density residential and institutional uses; and
- The eastern coastal dune is of immense botanical and aesthetic value and should be conserved as far as possible.

**Figure 3.7: Draft Macassar Structure Plan, 1990**

The proposals are for the most part consistent with other planning documents, which include the draft Helderberg Structure Plan. The provision for urban development to the south of Macassar Road has however been overridden for the foreseeable future, by the strategic decision to allow large scale sand mining to be pursued in the Macassar dune area.

The Urban Edge study excluded the area from the proposed urban development zone, reasoning that any growth should firstly be accommodated in the existing Macassar area.

The proposals of the Sandvlei structure plan do not have a major impact on the Macassar and environs spatial development framework; the two plans merely complement each other. **Figure 3.8** has reference. In this context, it becomes clear that the two separate structure plans should be combined into a single comprehensive structure plan for Macassar and its environs.

### 3.5.3 Somchem Structure Plan, 1997

The Somchem structure plan covers an adjacent area, immediately to the south–east of the study area of the Macassar and environs spatial development plan. It entails Denel's Somchem site, which has been a strategic site in respect of chemical and explosives manufacturing since 1903. The structure plan includes Erf 635, Farms 789 and 790, the latter being a strip of conservation-worthy, state-owned coastal land situated between the Somchem site and False Bay. Refer to **Figure 3.9** for the combined Somchem and AECI land use proposals.

The following proposals are of relevance to the Macassar and environs spatial development plan:

- The redirection of the Van Riebeeck Road corridor to run through the Somchem/AECI land instead of along Main Road no.2 into Somerset West as proposed by the MSDF. This proposal seeks to integrate Macassar and Firgrove with Somerset West and Strand. The advantages of this proposed change are listed as follows:
    - It will strengthen the link with Macassar;
    - The Somchem/AECI land offers a less restricted opportunity for the corridor to develop compared to the route along Main Road no.2; and
    - The Somerset Mall provides an important anchor on the relocated corridor.

The proposed land use designations for the Somchem land are:

- Industrial/Commercial

  Most of the proposed land use is situated along the N2 nearest to the existing services corridors. A smaller pocket is reserved adjacent to the existing Del Monte factory to function as a transitional zone between the existing industry and the land reserved for residential purposes. A total area of 98 ha is reserved for industrial/commercial purposes.

**Figure 3.8: Draft Sandvlei Structure Plan, 1998**

**Figure 3.9: AECI and Somchem Land Use Proposals, 1997**

- Commercial/Office/Residential

  A 58 ha portion is provided adjacent to Macassar Road and continues along the proposed activity corridor towards the AECI land. Most of the development is intended to be of a mixed-use character around the entrance of the redirected activity spine into the Somchem land.

- Residential

  Provision is made for a 90 ha portion of medium density residential development. This lies entirely to the south of the proposed corridor. A density of 25 units/ha would result in the provision of 2250 units.

- Institutional/Residential

  A 32 ha site north of the corridor is reserved for a large institutional use such as a college with the alternative of medium density housing.

- Special Residential and Tourism

  A large portion of land (115 ha) has been reserved for cluster developments consisting of residential areas, holiday accommodation, hotels, guest houses, restaurants and limited commercial uses. This land is situated closer to the coast and is anticipated to offer exceptional opportunities for "upmarket, nature sensitive developments".

- Conservation

  The conservation area of 88 ha comprises the entire Farm 789 (Somchem) and the state land (Farm 790). No urban development is proposed for this area.

The Somchem structure plan also embraces the concepts of nodes, activity corridors and a metropolitan open space system.

### 3.5.4 AECI Conceptual Development Framework, 1997

The development framework for the AECI land was prepared as a flexible planning framework to guide development over the next 20 to 30 years. (Refer to **Figure 3.9**)

The land use proposals for the AECI land can be summarised as:

- Industrial/Commercial

  This will essentially consist of light industrial uses and compatible commercial uses such as office parks and factory shops. It is situated immediately to the south of the N2.

- Commercial/Office/Residential

  Mixed-use development consisting of retail, commercial, residential, institutional and offices is envisaged along the activity corridor up to the Somerset Mall. The Paardevlei area has been earmarked for office, commercial and residential development through the re-using of the existing buildings.

- Residential

  Residential development is proposed for the area to the north of the N2 and to the south of the proposed activity corridor. Densities of 20 to 30 units/ha are proposed with much higher densities of 70 units/ha along the corridor, the area south of Somerset Mall and to the south of Paardevlei.

- Special Residential and Tourism

  This category consists of residential areas, holiday accommodation, hotels, guest houses, restaurants and limited commercial uses surrounded by open spaces.

- Conservation

  This includes nature areas of primary conservation value such as nature reserves and protected river systems.

The Somchem and AECI structure plans comprise a total area of approximately 1500 ha between Macassar, the N2, the R44 and False Bay. Both the Somchem and AECI properties are strategically located and therefore have an important role to play in the context of the Helderberg basin. It is anticipated that the implementation of the two structure plans will promote the development of a node of metropolitan significance at the eastern end of the Cape Metropolitan Area.

The combined development concept of the Somchem and AECI documents is reflected in the spatial proposals of the draft Helderberg Structure Plan.

### 3.5.5 Helderberg Urban Edge Study, 1999

The former Cape Metropolitan Council commissioned the Urban Edge Study as an extension of the MSDF. The purpose of the study is "to influence the form and direct the pattern of urban growth" within the metropolitan area. Of direct relevance to the Macassar and environs spatial development plan is the identification of the western part of the basin (including Somchem, AECI and the land between Macassar township and Kramat Road) as an area with significant potential to absorb growth and accommodate urban development. Refer to **Figure 3.10.** This study was adopted by the City of Cape Town in August 2001 and has been referred to the Provincial Government Western Cape for 4 (6) approval.

The proposed edge is based on the premise that the Somchem/AECI land is sufficient to absorb the needs of the western Helderberg in the next ten to twenty years. Development here would also serve to integrate the fringe areas with the Somerset West/Strand node. The MSDF's proposal to intensify development along the historic main roads is supported on the basis that the Helderberg basin "has considerable potential to accommodate significant additional development along these routes". In respect of Macassar, development should be limited to the area to the east of Kramat Road. Future growth of the residential area must be directed to the activity corridor through the Somchem/AECI land.

**Figure 3.10: Helderberg Basin Urban Edge Study, 1999**

A further motivation is the protection of the Kuils and Eerste River open space systems and the containment of urban sprawl. The proposed edge includes the approved township of Croydon and adjacent land (which is subject to township establishment applications) as an "urban enclave".

The land to the west of Kramat Road and between the N2 and Trunk Road 2 (R102) is excluded form the urban edge. Macassar Beach Township also falls outside the proposed urban edge. It is reasoned (without much clarification) that any proposed development of the Beach Township should rather be accommodated as an extension to the Beach Resort and in the Macassar residential area.

### 3.5.6 Moddergat Spruit Draft Land Use Proposals, 1998

A land use proposals report for the Moddergat Spruit, which traverses the Macassar study area, was prepared for the former Cape Metropolitan Council in terms of the river catchment management programme.

The land use proposals contained in this report entail the following:

- The Moddergat Spruit between Macassar Road and the N2 should be transformed into an urban park by means of a detailed landscape and management plan. This proposal has been successfully implemented;
- Future development should be set back (15 metres) and orientated onto the river;
- Possible areas for market gardening along the river should be identified; and
- Recreational and educational opportunities along the river should be exploited.

In the context of the Macassar and environs spatial development plan, these proposals represent a lower level of more detailed planning. They should also be evaluated in the context of the framework provided by the structure plan.

### 3.5.7 Macassar Dune Management Plan, 2000

The former Cape Metropolitan Council initiated a study to draft a Management Plan for the Macassar dunes to augment its General Sand Mining Structure Plan for the Cape Metropolitan Area. The study area overlaps largely with that of the Sandvlei structure plan and borders on the revised study area of the Macassar and environs spatial development plan. Small overlaps occur at the Zandvliet Sewage Works and at the Donald Cook land. Refer to **Figure 3.11**.

The main objective of the study is to find a balance between conservation and development, and economic and social needs in the context of the strategic importance of the Macassar dunes as, firstly, a resource of quality building sand and, secondly, as a conservation-worthy resource in terms of the natural environment.

**Figure 3.11: Macassar Dune Management Plan, 2000**

Recommendations of relevance are:

- The eastern and western dunes, the coastal zone in between and the river and estuary must be accorded formal conservation status;
- Redesign the Macassar Beach Township and extension to the resort as an integrated resort and residential node. The development should provide pedestrian access to the beach, protect the primary dune, retain corridors of open space and be developed in terms of environmental and architectural guideline;
- The Eerste River estuary must be restored for public use with appropriate facilities such as ablutions, litter bins, etc;
- Since the end date of sand mining may be in the order of 20 years, the after-use options of the consolidated mining area are difficult to predict and should only be considered after a review of the mining activity;
- Establish final mining extent and levels and plan for sequential uses of mining areas; and
- Upgrade Monwabisi and environs to a regional mixed-use node.

## 3.6 Combined Planning Context

A map has been compiled, **Figure 3.12** which reflects a combination of proposals surrounding the study area of the Macassar and environs spatial development plan.

To the east the Somchem/AECI proposals consist of Industrial/ Commercial/Residential uses. The plans provide for a high-density corridor of mixed-use development, which, amongst other things, has to connect Macassar with the eastern basin.

To the north, the study area is bounded by the agricultural and related activities.

To the west the initiative by the former Oostenberg Municipality reveals a proposed industrial area around the Accelerator Centre, expansion of the residential area of Eerste River and further industrial activities along the interface with the Helderberg Administration. The activity corridor with Van Riebeeck Road as a spine currently ends at Eerste River. The alignment of the connection between this point and the corridor through Somchem/AECI has not been resolved by the existing planning frameworks. Khayelitsha to the west is dominated by residential development and conservation worthy areas along the river system as well as the dune system. The coastal resort of Monwabisi and environs is planned as a regional mixed-use node

The area to the south is dominated by the flood plain of the Eerste River, the Sandvlei smallholdings, the Kramat area and the conservation-worthy Macassar dune system.

**Figure 3.12: Combined Planning Context**

# 4 The Study Area Context

## 4.1 Environmental Overview

This section provides an overview of the environmental characteristics and issues of Macassar and its surrounding environment. A full report is attached as **Annexure B**. The opportunities and constraints afforded by environmental features were analysed and certain recommendations made.

### 4.1.1 Climate

The study area falls within the Western Cape mediterranean climatic zone and as such experiences warm, dry summers and cool, wet winters. The highest temperatures have been recorded during January and February, while lowest temperatures occurred in July. The sea exerts a considerable moderating effect on temperatures experienced along the coastline, while night time temperatures on the inland floodplains and flats may be noticeably lower although frost does not occur.

Rainfall occurs mainly in the winter months between May and August, with highest rainfall in June. December and February are the driest months. The average annual rainfall for the area is 628 mm. The relatively high rainfall levels at Macassar are probably due to the close proximity of the Helderberg and Kogelberg mountains.

Wind roses from Cape Town International Airport for January and July indicate that, in summer, the predominant wind is from the south, while in winter it is mainly north to northwest. The southerly summer winds are often reinforced by the sea breeze over False Bay, thereby accounting for maximum wind speeds during the early afternoon. The winter winds from the north are often rain bearing. As wind contributes towards sand transport, windblown sand is a common phenomenon where unvegetated dunes and bare sands occur.

### 4.1.2 Topography

In general terms, the study area can be divided into the coastal zone, the dune fields behind the coastal zone, the Eerste, Kuils and Moddergat Rivers and their associated floodplains, and the flatlands inland of the rivers. Development in the area is being hindered by various factors. Firstly, much of the area consists of dunes and, secondly, an even greater portion is flatter than 1:150, which complicates the provision of stormwater drainage and sewage. A considerable portion in the middle of the study area is very low lying with a height of less than 5 m above sea level. These low-lying areas constitute significant obstacles to development, not the least of which is a high water table.

The Macassar dune system is considered the tallest and most extensive remaining on the Cape Flats. Its highest elevation (83 m) occurs in the extreme east, while other high points of 82 m and 76 m occur due east of Baden-Powell Drive. The main reason for these high elevations is the underlying limestone (calcretes) on which the aeolian sands have been deposited.

### 4.1.3 Geology and Soils

The area's geology originated mainly from the Quartenary and Tertiary periods and consists of calcareous sand, unconsolidated sands, partially consolidated sands, alluvial soils, sandy and muddy clay, and clayey sand. It is underlain by Malmesbury

Group sediments, which occur near the surface in a small portion of the study area to the north. Alluvium is to be found along the Eerste and Kuils Rivers.

The extensive dune system in the south of the study area comprises mainly calcareous sand and sands of the Wolfgat Member of the Bredasdorp Formation. The limestone outcrops, which account for about 19% of the dune field, are the remains of ancient dunes that have become lithified. These limestone remnants are aligned in a northwestern to southeastern direction along the present dunes. Calcareous shell-bearing quartzitic sands constitute the remainder of the dune field. Fine aeolian sands occur predominantly on the coastal margin of the dunes.

A large variety of soil types occur in the area. The predominant soil forms of the area are Katspruit and Kroonstad, while the other types occur in relatively small areas and tend to have a scattered distribution. The deep and shallow sands that overlay the limestone bedrock of the dunes tend to be young and poorly developed. Being nutrient deficient they are strongly calcareous, and have a high free lime content. These sands are generally suitable for construction and building purposes. No constraints in terms of substrate suitability are anticipated in most areas for general building purposes. More detailed investigation will however be required where heavy buildings or structures are planned.

### 4.1.4 Agricultural Potential

Agricultural potential of the area is generally low although scattered small patches of medium to high potential do occur. The extent of the patches of high potential is too small to be of economic value. However, larger areas of medium quality soil that constitute a valuable agricultural resource occur along the floodplains of the Kuils and Eerste Rivers where they comprise relatively rich alluvial deposits. These areas are already extensively cultivated and grazed.

The dune field soils are mostly infertile and poorly textured, which limit their potential for crop cultivation. Modern farming techniques can overcome some of these limitations, and methods of permaculture and mixed farming have produced good results in other areas, such as the Philippi horticultural area. The dunes are used to some extent for the grazing of cattle and goats. Soil-limiting factors may sometimes be mitigated through the use of fertilizers, although these could have serious implications for ecological systems if unwisely used. Elsenburg Agricultural College recommended certain opportunities with regard to agriculture in the area, namely bee farming in the dune area, fish breeding and cultivation of waterblommetjies.

### 4.1.5 Hydrology

The drainage systems are an important part of the character of Macassar. The rivers have value not only as aesthetic features and on ecological grounds but also as recreational assets. Three rivers occur in the study area, namely the Kuils River, the Eerste River and the smaller Moddergat River. The Kuils River enters the area from the west and flows eastwards along the base of a large coastal dune. The Eerste River enters the area from the north flowing southwards until it links up with the Kuils River at Kramat Bridge. It then flows towards False Bay at the eastern extremity of the dune system. The Moddergat River enters from the northeast and continues southwards until it joins the combined Eerste and Kuils River. It has been canalised through the township of Macassar.

The Kuils and Eerste Rivers are responsible for periodic large-scale floods in the area. Areas most severely affected by floods are the Sandvlei smallholdings and the

properties below the Sheik Yussuf Kramat. Several areas and features are prone to flooding, including the Sandvlei residential dwellings, the capacity of low-flow bridges along the N2, the maintenance of gaps in the river berm to allow high flows to spill eastwards, the dwellings in the vicinity of the Kramat (refer to **Figure 4.1**) and the houses next to the Moddergat River. The high water table of the area contributes to the flood problem.

**Figure 4.1: 1996 Flood, Settlement Surrounding the Kramat under Flood.**

Source: The Planning Partnership, 1996

Several activities inside and upstream of the study area affect flood inundation and water quality, such as developments, bulldozing of the banks, trampling and alien vegetation. These activities denude the channel of riparian vegetation, which assists in maintaining an open and unobstructed channel. The riverbank should have a vegetated buffer strip, which acts as a trap for sediment and pollutants, prevents bank erosion, and provides habitat for wildlife and possible opportunities for recreation. The Kuils River Environmental Management Study proposed several alternative solutions for dealing with the flood problem of which three are regarded as realistic, namely the selective upgrading of the Kuils River flow canal, the canalisation of the low-flow of a portion of the Kuils River, and the relocation of about 12 families in the Kramat area to higher ground.

Wetlands in the area are found mostly along the river courses and floodplains, although some do occur in the dune slacks and valleys, and disused parts of mining areas. They play an important role in maintaining the river condition by regulating inflow and outflow of the river channel (stormwater retention) and trapping nutrients and sediment. They must therefore be protected against damage by drainage, trampling, dumping and development.

The Eerste River estuary is located to the east of the study area and is presently in a neglected condition. Estuaries play a vital role in many aspects of ecology, such as

providing foraging and nesting areas for birds and nursery areas for fish. They have unique vegetation that is adapted to harsh conditions. Estuaries also provide valuable opportunities for recreation, but require strict management to ensure their protection. The wastewater treatment works, immediately upstream of the estuary, can be expected to account for elevated levels of nutrients and faecal bacteria in estuarine waters.

A good indicator of water quality and its suitability for certain uses is given by the amount of dissolved salts present. The Eerste River is subject to periodic fluctuations of relatively high concentrations of dissolved salts, especially during summer when water flow is reduced. High salt concentrations limit the irrigation potential of such water for crops. This is particularly a problem in summer when the demand for irrigation is greatest. Salination of the soils is also a problem when irrigation is undertaken with water of a high saline content.

The dense growth of indigenous wetland plants, such as *Typha capensis*, and exotic aquatic plants, such as *Myriophyllum aquaticum*, due to high levels of nutrients, hinders river flow in the channel and exacerbates the flood problem in winter. These plants also reduce open water surface, which is important as a water bird habitat, as well as reducing the potential for waterblommetjie cultivation. It was recently revealed that the water quality at Macassar Beach is acceptable for recreational use, especially for bathing purposes. Faecal coliform counts were well below those set by the South African Quality Guidelines for Coastal Marine Waters as acceptable for recreational purposes.

### 4.1.6 Vegetation

The study area can be broadly divided into three categories according to vegetation habitat, namely the vegetation of the dunes, vegetation along the river courses, and lowland vegetation types of the rest of the area. The great variety of habitats in the dunes accounts for four key plant communities, namely pioneer strand vegetation on embryo and hummock dunes, strandveld on fore- and stable parabolic dunes, dune fynbos on deep calcareous sand, and limestone fynbos on shallow sand overlying limestone. The Botanical Society of South Africa identified the Macassar dunes as one of the most important botanical ‘hotspots’ on the Cape Flats. Over 200 indigenous plant species were recorded in the Macassar dunes, including seven Red Data species. Several large clumps of milkwoods occur along the base of the main dune in the east and along the fringe of the Eerste River. These trees may not be damaged without a permit.

Much of the vegetation along the river courses has been converted to pasture or is otherwise impoverished through disturbance. The riverine vegetation of the Eerste River consists mainly of trees of up to 6 m tall and includes species such as the indigenous *Salix mucronata* (Cape willow), and the exotic *Salix babylonica* (weeping willow) and *Sesbania punicea*. Significant wetland areas are found along the Kuils River.

The rest of the study area comprises mainly urban development and agricultural lands. Planted lanes of mainly pine and gum trees are found in particular areas. Significant areas of strandveld occur on the grounds of the Boy’s Town Institution and also immediately west of the study area, north of the N2. These areas are important in terms of their conservation value. An important patch of renosterveld is located along the Baden-Powell boundary of Vergenoegd Farm and is large enough to be considered of national conservation importance.

The dominant alien plant species found in the study area are *Acacia cyclops* (rooikrans) and *Acacia saligna* (port jackson). Infestation by these species varies from light to heavy. Dense infestations were also observed on certain parts of the floodplain. Areas where the natural vegetation has been disturbed appear to be more susceptible to infestation. However, even after relatively heavy infestation recovery of indigenous vegetation may occur after eradication of the acacias. Given the conservation importance of the dunes, concerted efforts should be made to eradicate the aliens once the area has been accorded a formal conservation status.

Alien aquatic vegetation is found to be clogging the flow channels of some of the rivers. Species such as parrot's feather and *Eichornia crassipes* (water hyacinth) are particularly harmful to aquatic ecosystems. These species outcompete indigenous water plants and establish monotypic cultures that denude the water of oxygen and important nutrients. The result is a reduction in habitat types and species diversity. Dense surface coverings of these weeds significantly diminish suitable habitat available to waterfowl.

### 4.1.7 Fauna

The study area has a varied and interesting Cape Flats fauna due to the presence of a diverse range of habitats. Mammals that occur in the area include grysbok (*Raphicerus melanotis*), Cape clawless otter (*Aonyx capensis*), water mongoose (*Atilax paludinosus*), dune mole rat (*Bathyergus suillus*), Cape grey mongoose (*Galerella pulverulenta*) and porcupine (*Hystrix africaeaustralis*).

A very rich birdlife is encountered here as a survey of the dune system, wetlands and coast revealed 122 recordings with a further 62 species likely to occur regularly. The wetlands represent one of the last remaining areas on the Cape Flats where water birds breed and should therefore be preserved. The importance of the aquatic environments in terms of birdlife is reflected in the fact that water birds account for 61 of the species, terrestrial birds 94 species and coastal birds 18 species. Eleven species are found in more than one habitat, while 30 species have been recorded at the estuary. From the bird list, 10 species are South African Red Data species, with only one, Baillon's Crake, likely to breed here.

The area also supports a large amphibian population. Angulate tortoise (*Chersina angulata*) and mole snake (*Pseudapsis cana*) are common in the area. A variety of other snake species may also occur in the area, such as *Naja nivea* (Cape cobra) and *Bitis arietans* (puff adder), given the abundance of prey and suitable vegetation cover.

Several fish species were recorded in the Eerste River estuary. Estuaries are known to be important nursery and foraging areas for marine fish populations. Their recreational potential should thus not be exploited at the expense of their valuable ecological functions, which are easily disturbed through activities, such as bait collecting, motor boating and indiscriminate pollution.

### 4.1.8 Environmental Threats

The following environmental threats should be prioritised so as to inform present and future planning initiatives in terms of conserving environmental resources in the area:

- Activities of off-road vehicles and trail bikes in the dunes and at the coast have caused large-scale vegetation loss and the consequent destabilisation of underlying sands. Heavily impacted areas include the sensitive embryo and fore dunes and access points onto the dunes from Baden-Powell Drive. Vehicular activities above the high-water mark on the coastline constitute not only a hazard to recreational beach users but also a threat to birdlife. The endangered African black oystercatcher (*Haematopus moquini*) is particularly threatened by this activity.

- Perhaps the greatest threat to the area is posed by housing and related developments in the dune system and on the floodplain. The topographical changes caused by such developments are permanent, as is the loss of indigenous vegetation and habitat. Development in the floodplain impacts on the hydrology of the area and related ecological components.

- Pollution of the rivers and associated floodplains through sewage disposal, fertilizer runoff and stormwater runoff has resulted in the increase in aquatic weeds and the resultant loss of faunal and floral diversity. The loss of open water translates into a loss of habitat for waterfowl and cultivation area for waterblommetjies.

- The mining of sand has until now been largely uncontrolled and mitigatory actions have either been ignored or simply not required by the relevant authorities. The large areas of open sand and borrow pits are unsightly and constitute ecologically sterile environments. Continuation of the *status quo* threatens the conservation-worthy vegetation found on the Macassar dunes. Recommendations contained in the Macassar Dunes Management Plan need to be fully implemented.

- Frequent and uncontrolled fires, especially in the dune areas, result in the continual retardation of vegetation recovery with the consequent propensity for sandy areas to become unstable. Although most fires are probably started accidentally, burning for grazing purposes and simple maliciousness cannot be discounted.

- Grazing of livestock on the dunes poses a threat to sensitive or threatened plant species as well as causing destabilisation through trampling.

- Alien infestation, especially rooikrans and port jackson, threatens indigenous vegetation by outcompeting it for habitat space. It also poses a fire hazard through increased fuel load compared to that constituted by the natural vegetation.

- Indiscriminate woodcutting of indigenous vegetation is a minor threat as alien acacias are mainly targeted. However, practices associated with woodcutting, such as vehicle use and dune destabilisation, are negative aspects. For woodcutting to be of benefit, juvenile alien plants must also be targeted.

- Dumping and littering is a big problem as it detracts from the scenic beauty of the area as well as having ecological impacts in certain instances. On a social level it reinforces a lack of appreciation for the natural assets that the area possesses.

- Vagrancy poses a minor threat to vegetation. However, it may constitute a security threat to users of particular areas.

- Indiscriminate bait collecting along the coast and in the estuary can have a significant negative impact on the ecology through the loss of a food resource for other organisms as well as physical disturbance of the environment.

## 4.2 Cultural Environment

### 4.2.1 Archaeological Sites and Historical Buildings

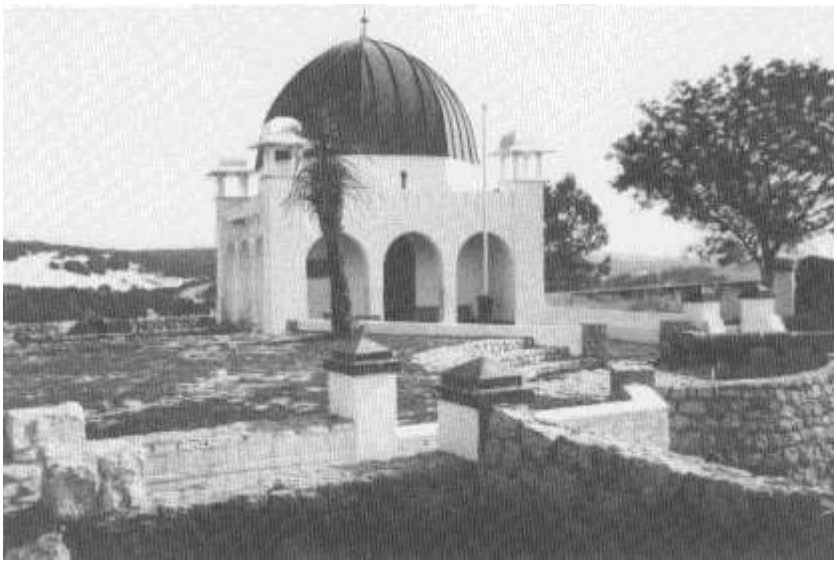
Limited archaeological research has been conducted along this stretch of the coastline (Chittenden Nicks de Villiers 2000). Similar sites elsewhere on the Cape Flats, underlain by calcretes, have yielded valuable fossil records and it could be expected that the Macassar dunes and coastline may contain similar material (pers. comm. D. Halkett, UCT). The presence of middens and other archaeological/palaeontological remains is very likely and appropriate measures should be taken to execute contingency plans should such discoveries be made during the course of any excavations and other activities.

A letter from the South African Heritage Resources Agency (SAHRA), previously known as National Monuments Council, identifies five buildings or complexes as being of historical value. (Refer to **Annexure C**). Their locations are shown on **Figure 4.2**. They all reflect early settlement here as an agricultural area and an area of banishment by the Dutch East India Company of Sheik Yussuf in 1694.

- **Kramat and Moslem settlement**

  The Kramat (Refer to **Figure 4.3**) is the burial place of Sheik Yussuf who is considered to be the founder of the Moslem faith in the Cape. It is visited by thousands of Moslems annually as a place of religious significance. Many of the inhabitants of the cottages at the foot of the hill on which the Kramat is located are direct descendants of the Sheik and his followers. These cottages are also considered by SAHRA to be of cultural significance. Local planning for the Kramat area is required at a precinct level. Proposals should provide guidelines on parking requirements, the location of ablution facilities, signage and landscaping measures to militate against flooding.

**Figure 4.3: View of the Kramat**



- **Sandvlei cottages and dwellings along the Kuils River**

  These dwellings lend a distinctive character to the area through their chosen setting, scale and rural nature, and are considered to be worthy of conservation.

**Figure 4.2: Conservation Worthy Buildings**

- **Small church from 1879**

  The small church located amongst the smallholdings next to the Kuils River was built in 1879 and is of historical significance despite a fair amount of architectural modifications having been effected.

- **Vergenoegd**

  In 1696 this farm was allocated to Pieter de Vos and in 1820 the Faure family in whose ownership it still remains acquired it. The existing gable was added to the house in 1773 and is identical to the one at Spier. One of the original sides of the H-form building no longer exists.

- **Zandvliet**

  This farm was allocated to Petrus Kladen in 1699 and the existing Georgian double-storey building was erected in 1800. The 1990 Macassar Structure Plan mentions that the former Regional Services Council was examining the possibility of restoring the dilapidated building for use as a sports center. In this regard a report by the architect G. Fagan was produced for the Council. More recent suggestions propose its use as an environmental education center to serve the local community (Ninham Shand & Chittenden Nicks 1999). The possibility of using the building and its surrounds for an animal pound has been explored with the former Helderberg Municipality (Planning Partners, 1999) This is discussed further under the proposals section in volume two. Although numerous suggestions have been made regarding the future use of the building, the building is in a dilapidated state and the Building Control Department of Helderberg Administration has recommended that the structure is unsafe and should be demolished.

- **Zeekoevlei**

  The farm, originally named Vogelgezang, was first owned by Sara Tas, a sister of Adam Tas. The name was changed to Zeekoevlei in about 1720. The current building was built in *circa* 1850.

## 4.3 Socio Economic Profile

### 4.3.1 Demographic Profile

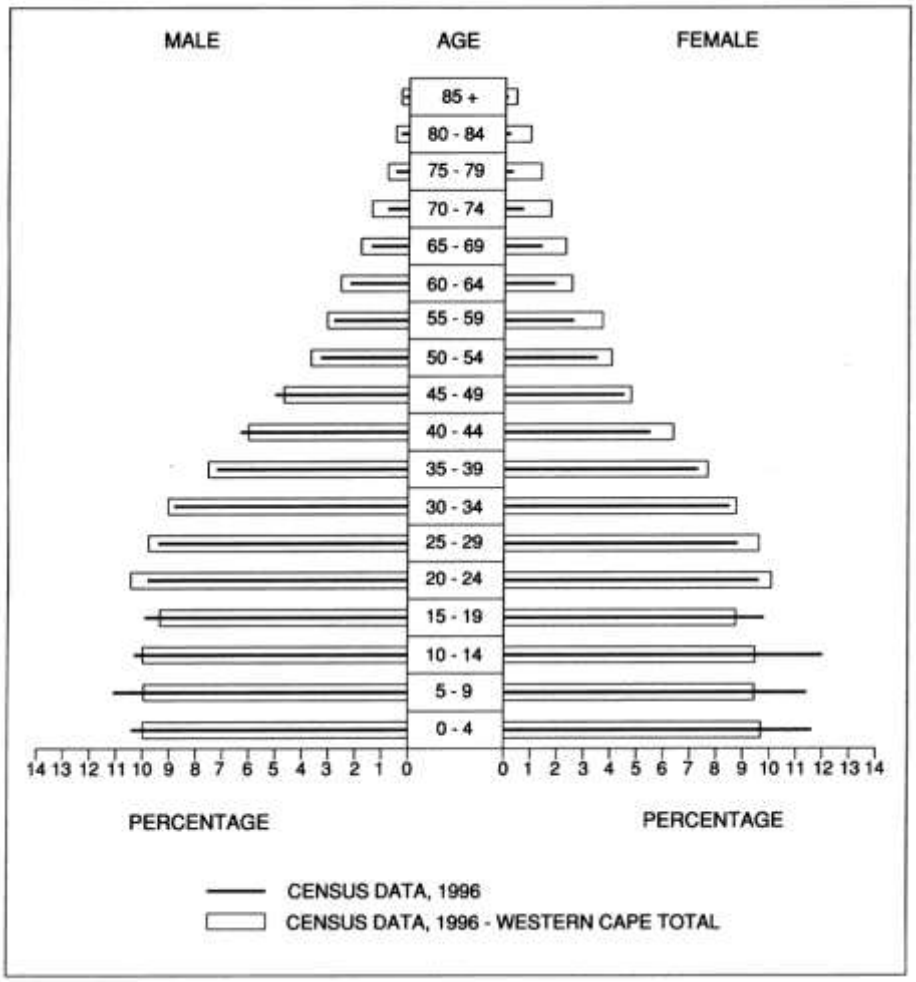
**Table 4.1: Population Groups by Gender**

| Population Group | Gender | | Total | % |
|---|---|---|---|---|
| | Male | Female | | |
| African/Black | 542 | 549 | 1 091 | 4.1 |
| Coloured | 11 736 | 12 361 | 24 097 | 91.4 |
| Indian/Asian | 49 | 54 | 103 | 0.4 |
| White | 52 | 44 | 96 | 0.4 |
| Unspecified | 456 | 529 | 985 | 3.7 |
| **Total** | **12 835** | **13 537** | **26 372** | **100** |

Source: Statistics South Africa, Census Data (1996)

According to the census data the total population in 1996 was 26 372. By comparing the relative proportions of racial groupings in the area, **Table 4.1** reveals that the proportion of Coloureds was significantly higher than other racial groupings. This can be attributed to the fact that Macassar was originally a coloured group area. The population pyramid below (**Figure 4.4**) shows a comparison of the population structure for the study area with that of the Western Cape.

**Figure 4.4: Population Pyramid**



The shape of the pyramid reveals a young population structure with a high percentage of the population in the 0 –19 year age category, compared to the Western Cape total. The Western Cape figures reveal a population that is stabilising, with a higher percentage of the population in the 20-64 year category.

**Table 4.2: Total Population and Age Structure**

| Age Group | Number | % |
|---|---|---|
| 0 - 4 | 2 891 | 11.0 % |
| 5 -19 | 8 484 | 32.2 % |
| 20 – 64 | 14 129 | 53.5 % |
| 65+ | 789 | 3.0 % |
| Unspecified | 79 | 0.3 % |
| **Total** | **26 372** | **100 %** |

Source: Statistics South Africa, Census Data (1996)

The age structure of the population reflects a relatively young population. A high percentage of the total population is between the years of 0-19, which constitute 43.2% of the population and there are very few elderly people. The age structure is an indication that the share of *potential* economically active people in the area is high, but that the current percentage of the population that falls within the economically active category (20-64 years) is only half of the total population. Further, the majority (83%) of income earners earn less than R3 500 per month and only 35% of the total population is employed (see **Section 4.2.2** below). The young age structure could impact on housing provision and the availability of other facilities (e.g. schools) in the study area.

**Table 4.3: Population Growth per Former Municipal Area (1980-1996)**

| Municipal Area | Year | | | 1996 % of CMA total | Annual Growth over 18 years |
|---|---|---|---|---|---|
| | 1980 | 1991 | 1996 | | |
| Blaauwberg | 108 785 | 123 737 | 132 900 | 5% | 3.9% |
| Cape Town | 765 457 | 1 016 087 | 1 070 220 | 37% | 2.2% |
| **Helderberg** | **89 613** | **112 260** | **138 310** | **5%** | **5.5%** |
| Oostenberg | 80 065 | 216 920 | 240 020 | 8% | 9.0% |
| Tygerberg | 627 726 | 778 490 | 927 150 | 32% | 2.6% |
| South Peninsula | 229 903 | 315 770 | 354 150 | 12% | 3.6% |
| **CMA** | **1 901 559** | **2 562 900** | **2 862 750** | **100%** | **2.4%** |

Source: CMC (1998)

**Table 4.3** reflects the population totals for the previous municipal areas of the CMA for the years 1980, 1991 and 1996. The Helderberg area, of which Macassar is a part of, has shown a remarkable population growth from 1980 to 1998. The population of Helderberg has grown at a rate of 5.5% per annum during that period and exceeds the CMA population growth rate of 2.4%. Within that period the previous Macassar Structure Plan study area (1990) has grown by 3.2% per annum, from a population of 17 587 in 1984 to 25 544 in 1996. The total population for Macassar

and Environs, in 1996, stands at 26 372, which constitutes 19% of the total population of the former Helderberg municipal area.

**Table 4.4: Population Projections at a Growth Rate of 3.2% (Macassar) and 2.4% (CMC)**

| Growth Rate | Year | | |
|---|---|---|---|
| | 1996 | 2010 | 2020 |
| 3.2% | 26 372 | 40 988 | 56 163 |
| 2.4% | 26 372 | 36 757 | 46 595 |

**Table 4.4** illustrates the predicted number of additional people that may have to be accommodated in Macassar over the next 20 years. If a growth rate of 3.2% is accepted the figures indicate that in twenty years time the population would more than double in size. The projections are based on historic trends and do not take account of new vectors such as the HIV/AIDS pandemic.

These figures are considerably lower than the projected figure contained within the 1990 Structure Plan, which was based on a previous dispensation where separate group areas were implemented. The emphasis at that stage fell on Macassar and Atlantis as major growth areas, whereas large new housing areas have since been opened up, e.g. Blue Downs, Kleinvlei, etc. In a more integrated society it is evident that the growth rate would be based on people choosing where they wish to live, e.g. closer to work opportunities, etc.

Where people will eventually live, depends on a complex interaction of factors and the abovementioned figures do not mean that those specific numbers will have to be accommodated in Macassar. Population growth is essentially a metropolitan issue that will be determined, to a large extent, by the geographic distribution of where physical and economic growth in the CMA is located.

### 4.3.2 Income and Economic Structure

**Table 4.5: Individual Income R/Month**

| Individual Income (R/Month) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | 1 – 1 000 | 1 001-3 500 | 3 501-6 000 | 6 001+ | Unspecified | Total |
| **Number** | 14 383 | 4 285 | 5 678 | 461 | 112 | 1 453 | **26 372** |
| **% of Total Population** | 54.5 | 16.3 | 21.5 | 1.8 | 0.4 | 5.5 | **100** |

Source: Statistics South Africa, Census Date (1996)

**Table 4.5** shows that the majority of income earners earn less than R3 500 per month (83%), which means that they qualify in this respect for the national housing subsidy.

**Table 4.6: Employment Status**

| Employment Status | | | | | |
|---|---|---|---|---|---|
| **Population Group** | **Employed** | **Unemployed** | **Not Economically Active** | **Unspecified** | **Total** |
| **Number** | 9 297 | 1 967 | 6 042 | 9 066 | **26 372** |
| **% of the total population** | 35.2% | 7.5% | 22.9% | 34.4% | **100** |

Source: Statistics South Africa, Census Data (1996)

**Table 4.6** indicates that a fair amount of the population is not economically active. This is largely due to a high percentage of youth in the 1-19 years old category, which constitutes 43.2% of the population. By implication most of the people in this category would still be at school, hence they are not legible to be employed.

**Table 4.7: Employment per Economic Sector**

| Economic Sector | Employment | % of Total Employment |
|---|---|---|
| Services | 2 103 | 22.6 % |
| Manufacturing | 1 702 | 18.3 % |
| Trade | 1 591 | 17.1 % |
| Construction | 1 091 | 11.7 % |
| Agriculture/Fishing | 406 | 4.4 % |
| Private households | 759 | 8.2 % |
| Other | 1 645 | 17.7 % |
| **Total** | **9 297** | **100 %** |

Source: Statistics South Africa, Census Data (1996)

**Table 4.7** indicates that of all the people living in the study area, 9 297 are employed, which constitutes 35% of the total population. The largest source of employment for the resident population is the service sector (22.6%) followed by manufacturing (18.3%) and trade (17.1%).

**Table 4.8: Magisterial District of Employment**

| Magisterial District | Number | % |
|---|---|---|
| Bellville | 695 | 7.5 |
| Cape Town | 611 | 6.6 |
| Kuils River | 518 | 5.6 |
| Somerset West | 5 093 | 54.8 |
| Stellenbosch | 453 | 4.9 |
| Strand | 1 027 | 11.0 |
| Other | 900 | 9.6 |
| **Total** | **9 297** | **100** |

Source: Statistics South Africa, Census Data (1996)

A substantial proportion (65,8%) of the population is employed within the Helderberg area (Somerset West and Strand). This still leaves 34,2% commuting to destinations further away, especially Bellville, Cape Town and Kuils River. By implication, this means that the study area is largely a dormitory suburb. The desire lines are to Cape Town, Bellville and Kuils River to the west and Somerset West and Strand to the east. This influences peak hour traffic flow on transportation routes in and out of area.

### 4.3.3 Education Level

**Table 4.9: Education Level**

| Education Level | | | | | | |
|---|---|---|---|---|---|---|
| | **No Schooling** | **Primary** | **Secondary** | **Tertiary** | **Unspecified** | **Total** |
| **Number** | 2 721 | 8 550 | 10 964 | 541 | 3 596 | **26 372** |
| **% of the Total Population** | 10.3 | 32.4 | 41.6 | 2.1 | 13.6 | **100** |
| **Western Cape %** | 6.7 | 24.6 | 58.1 | 10.6 | _ | **100** |

Source: Statistics South Africa, Census Data (1996)

**Table 4.9** illustrates that a high proportion of the population are currently under training, if compared to the demographic structure. Approximately 41.6% of the population have a secondary education. Only 2.1% of the population however, have a tertiary education.

### 4.3.4 Housing

**Table 4.10: Type of Dwelling**

| | **House on separate stand** | **Town/semi -detached** | **Flat** | **House/Flat/ Room in backyard** | **Informal dwelling in Backyard** | **Informal dwelling elsewhere** | **Other** | **Total** |
|---|---|---|---|---|---|---|---|---|
| **Number** | 2 518 | 1 126 | 727 | 125 | 225 | 278 | 123 | **5 122** |
| **% of total dwellings** | 49.2 | 22.0 | 14.2 | 2.4 | 4.4 | 5.4 | 2.4 | **100** |
| **Western Cape %** | 54.6 | 11.4 | 9.4 | 3.3 | 3.4 | 13.2 | 4.7 | **100** |

Source: Statistics South Africa, Census Data (1996)

A variety of housing types exist in the area, ranging from single dwelling units, flats, semi-detached houses to informal dwellings. A total of 5 122 dwellings exist, 49% of which are single dwelling units followed by semi-detached units/town houses at 22%. The informal dwellings constitute 9.8% of the total number of dwellings, which is well below the CMA percentage of 16.6%.

**Table 4.11: Current Informal Dwellings**

| Area | Approximate Number. of Structures |
|---|---|
| Macassar Village | 45 |
| Chris Hani Park | 160 |
| Madalabos | 350 |
| Smartie Town | 10 |
| **Total** | **625** |

Source: Macassar Housing Office (2001)

**Table 4.11** shows the number of current informal dwellings in the study area. The number of informal dwellings has increased since 1996 (note that these figures do not include structures in backyards). According to municipal sources approximately 5 600 people are on a waiting list for housing. This includes rental stock, subsidy housing, etc.

**Table 4.12: Dwelling Ownership**

| | Owner | | | Total |
|---|---|---|---|---|
| | Yes | No | Unspecified | |
| | 3 766 | 1 290 | 66 | **5 122** |
| **% of Total Dwellings** | 73.5 | 25.2 | 1.3 | **100%** |

Source: Statistics South Africa, Census Data (1996)

The total percentage of dwelling ownership in the study area is 73.5 % and the percentage for non-owners is 25.2%. The high ownership of dwellings in the area indicates that the population is stable but could also be trapped and forced to travel long distances to work (refer to **Table 4.8**).

**Table 4.13: Household Size**

| Household Size | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6+** | **Total** |
| **Number** | 176 | 515 | 770 | 1 104 | 968 | 1 589 | **5 122** |
| **% of Total Households** | 3.4 | 10.1 | 15.0 | 21.6 | 18.9 | 31.0 | **100** |

Source: Statistics South Africa, Census Data (1996)

**Table 4.13** indicates that approximately 50% of households have a household size of 5 or more persons. This may be an indication that the households are overcrowded and there is a need for more housing and bigger housing units. The existence of informal settlements in the area also points to a shortage in housing.

Discussions with residents revealed that there was a problem with overcrowding in the flats, which have not been designed for family occupancy. Thus, there is a need for the provision of larger family units in the study area. Security was also a major issue and the residents believed that increased lighting measures would assist to improve surveillance and security of the area.

## 4.4 Land Ownership

Ownership within the study area is indicated in **Figure 4.5**.

A large portion of the study area is in public ownership. These areas include the Macassar Beach Resort, Macassar Beach Township, portions of the Macassar Dunes area, the two sewage works sites (southwest and southeast) and large portions of land to the west and south of the existing Macassar Township.

The majority of the remaining area is in private ownership, including a large portion of the high primary dune in the southeast. This may be problematic if this area is identified as a conservation/nature area. The ideal situation would be to acquire this area for public ownership.

Although the Macassar Beach Township is indicated as being in public ownership, a small number of erven therein are privately owned. Conversely, a small number of erven in the unbuilt portion of the Croydon Township are in public ownership.

**Figure 4.5: Land Ownership**

## 4.5 Existing Land Uses

The existing land pattern is illustrated in **Figure 4.6**. The southern parts of the study area comprise much of the Macassar dune stretching between the Eerste River estuary in the east to near Baden Powell Drive in the west. Included in this area are the Zandvliet Waste Water Treatment Works to the west and Macassar Beach Resort to the south. The northeastern part of the study area is mainly used as agricultural fields, fallow land and open veld.

With the exception of Faure the urban components of the study area are primarily residential with associated community facilities. Most employment opportunities occur in the largest towns, namely, Somerset West and Strand. There are few business activities in the study area. Some industrial activities are also found in Faure on the north western of the study area and on Donald Cook's land to the southeast.

**Figure 4.6: Existing Land Uses**

# 5 Summary of Issues

The following is a summary of the issues that have been identified from the previous section as well as from the public meetings.

## 5.1 Historical Issues

- Macassar suffers from being a racially exclusive town planned in the 1960's that was expected to have a high growth rate and be largely self-sufficient. This has not happened for a number of reasons including the subsequent development of Blue Downs and Kleinvlei. In addition, people were resettled to Macassar from Somerset West and Strand and thus there is little sense of community, even the settled population at Sandvlei did not entirely accept the newcomers.

- This scenario has resulted in a struggling community dependant on work and urban facilities some distance from Macassar.

## 5.2 Structural Issues

- The study area is fragmented and generally lacks cohesion. **Figure 5.1** has reference. All the communities operate as separate areas e.g. Firgrove, Somchem Village, Croydon/Faure, Macassar east and west, Macassar Beach and Sandvlei.

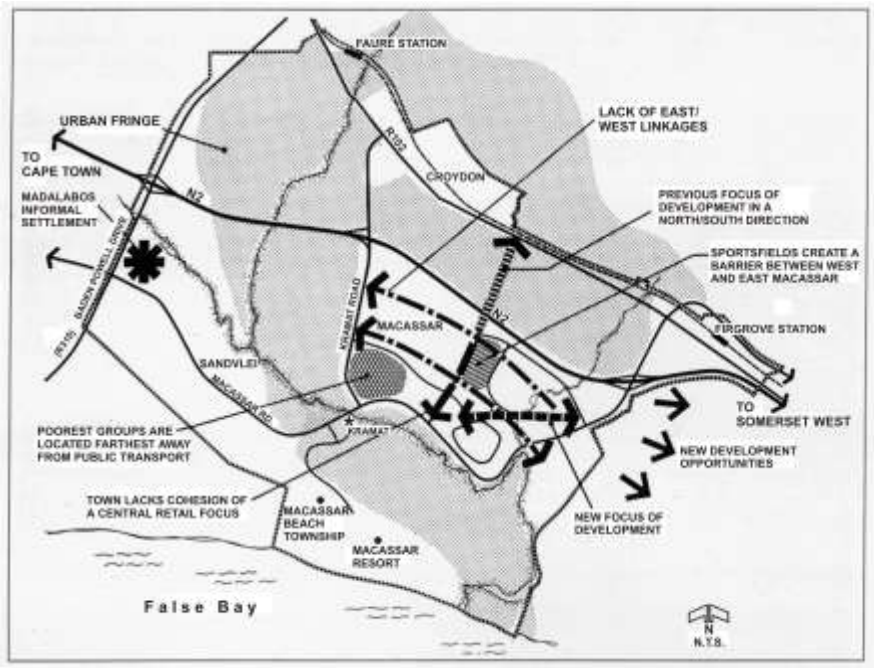
- Although the community facilities are well developed in Macassar and are located at a central location, the town lacks the cohesion of a strong retail focus. Small shops and taverns are scattered throughout the town.

- Macassar is not well integrated and suffers from a lack of east-west movement systems to link Macassar east with Macassar west.

- The new sports fields located in the centre of Macassar, along Albatross Way are fenced with vibracrete and do not allow any through movement for either pedestrians or vehicles. This has severely hindered both the development of a central focus for the town, as well as the possibility of improving the east-west movement system.

- The poorest groups within Macassar live the furthest away from the public transportation and community facilities. The lack of an internal east-west movement system also makes pedestrian and public transport movement difficult.

**Figure 5.1: Structural Issues**




## 5.3 Environmental Issues

- The environmental resources of Macassar and environs are under threat from the impact of urban development (especially the Macassar dune system). **Figure 5.2** has reference.

- The agricultural potential of the area is generally low, although small pockets of medium to high potential do occur.

- The drainage system and associated landforms are an important part of the character of Macassar. The river ecosystems, in combination with the coastal ecosystems combine to form an area of metropolitan conservation significance.

- The rivers have value in terms of their aesthetic features, ecological grounds and recreational opportunities.

- On occasion, the Kuils and Eerste Rivers are responsible for large scale flooding, which has an impact on the informal settlement of Madalabos, the Sandvlei smallholdings and the properties below the Sheik Yussuf Kramat.

- There are five buildings that have been identified by National Monuments Council as being of historic value. These are the Kramat and Moslem settlements, the Sandvlei cottages and dwellings along the Kuils River, small church from 1879, Vergenoegd farmhouse, Zandvliet Georgian double storey and Zeekoevlei farmhouse.

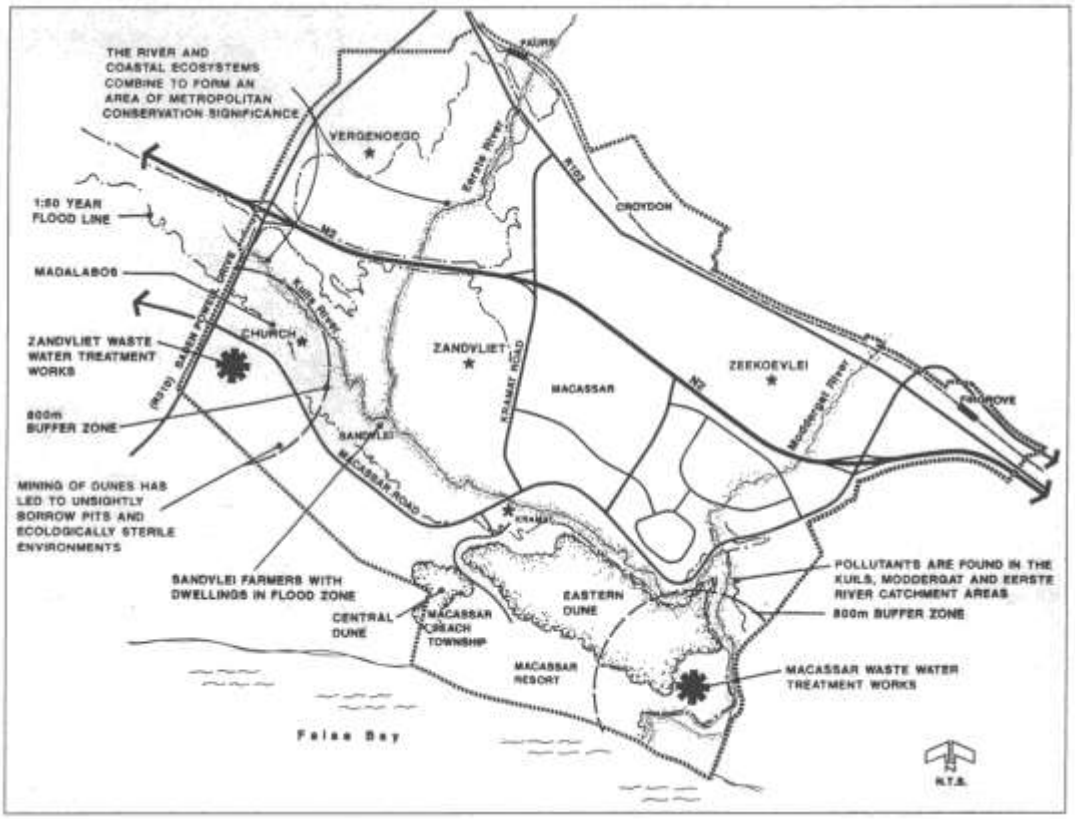
- Pollution of the rivers and associated floodplains through sewage disposal, fertiliser and stormwater run-off has resulted in a loss of faunal and floral diversity.

- The mining of sand has led to unsightly borrow pits and ecologically sterile environments. Dust and heavy vehicle /machine movements are also a problem.

- Grazing of livestock on the dunes and in the flood plain poses a threat to sensitive plant species.

- Dumping and littering problems in the area detract from the scenic beauty of the area.

**Figure 5.2: Environmental Issues**




## 5.4 Socio Economic Issues

- The Helderberg area shows a higher annual growth rate of 5.5% compared to the rest of the CMA at 2.4% and the study area of 3.2%.

- There is a high percentage of youth in the 1-19 years old category, which constitutes 43.2 % of the population.

- Approximately 42% of the population have a secondary education compared to 58.1% in the Western Cape.

- Approximately 83% of income earners earn less than R 3 500.00 per month.

- Approximately 50% of households have a household size of more than 5 persons.

- The majority of employed people work in the Somerset West and Strand magisterial districts (approximately 66%). The rest of the employed population work within the Bellville, Cape Town and Kuils River magisterial districts.

- Lack of housing, social problems of gangsterism and crime, prevail in the area.

# 6 Conclusion

This Volume 1 report contains the analysis and background of the Macassar and Environs Spatial Development Plan report. The proposals and draft spatial plan for the study area are discussed in Volume 2.

# 7 Bibliography

Bruinette Kruger Stoffberg Ing. 1985. **Macassar Struktuurplan: Verkeer- en Vervoeraspekte**.

Cape Metropolitan Council, 1998. **Moddergat Spruit Draft Land Use Proposals**. Prepared by Chittenden Nicks de Villiers.

Cape Metropolitan Council, 1999. **Kuils River Metropolitan Open Space System: Volume 1: Final Report.** Prepared by Ninham Shand and Chittenden Nicks de Villiers.

Cape Metropolitan Council, 1999. **Helderberg Structure Plan: Spatial Framework and Policy**. Prepared by BCD Town and Regional Planners.

Cape Metropolitan Council, 2000. **Helderberg Urban Edge Study**. Prepared by MCA Urban and Environmental Planners.

Cape Metropolitan Council, 2000. **Macassar Dunes Management Plan, Volumes 1, 2 and 3 Draft Technical Report.** Prepared by Chittenden Nicks de Villiers and Coastec.

Cape Metropolitan Council. 1996**. Metropolitan Spatial Development Framework**.

Denel, Somchem 1997. **Structure Plan for The Somchem Site of Denel (Pty) Ltd.** Prepared by Macroplan.

Department of Development Planning, 1988. **Urban Structure Plan, Volume 1: Peninsula**.

Department of Development Planning, 1988. **Urban Structure Plan, Volume 3: Hottentots-Holland Basin.**

Department of Water Affairs & Forestry, 1993**. Water quality, Volume III: Data for the Eerste, Lourens, Steenbras, Palmiet, Riviersonderend and Diep River Basins. Western Cape Systems Analysis.**

Helderberg Municipality, 2000. **Policy Guidelines for Development within Helderberg Smallholdings Areas.** Prepared by MCA Urban and Environmental Planners.

Helderberg Municipality, 2000. **Policy Guidelines for Development within Helderberg Rural Areas.** Prepared by MCA Urban and Environmental Planners.

Low, A.B. 1989. **The Macassar Dune and its Utilisation**.

Low, A.B. 1994. **Analysis of the botanical attributes and environmental sensitivity of the Macassar/Sandvlei Structure Plan area.**

Maze, K.E. & Rebelo, A.G. 1999. **Core flora conservation areas on the Cape Flats**. FCC Report 99/1.

**AECI Helderberg Conceptual Development Framework, Final Report.** Prepared by MLH 1997.

Oostenburg Municipality, 2000. **Greater Blue Downs Spatial Plan.** Prepared by Bertie van Zyl, Planning Inc.

South African Rail Commuter Corporation, 2000. **Khayelitsha – Somerset West Proposed Commuter Rail Corridor. Interim Report HB/TP/1/7/4/18/11.** Prepared by Jeffares & Green Inc. in association with Hawkins Hawkins & Osborn.

Western Cape Regional Services Council, 1990. **Konsep Macassar Struktuurplan**. Prepared by Plan Associates.

Western Cape Regional Services Council, 1994. **Kuils River Environmental Management Study, Report no. 2194/6124**. Prepared by Ninham Shand.

Western Cape Regional Services Council, 1996. **Draft Sandvlei Structure Plan**. Prepared by The Planning Partnership 1996.

# ANNEXURE A
## Record of Public Meetings

# ANNEXURE B
## Environmental Overview

# ANNEXURE C

## Letter from National Monuments Council

# ANNEXURE D

## Comments Report