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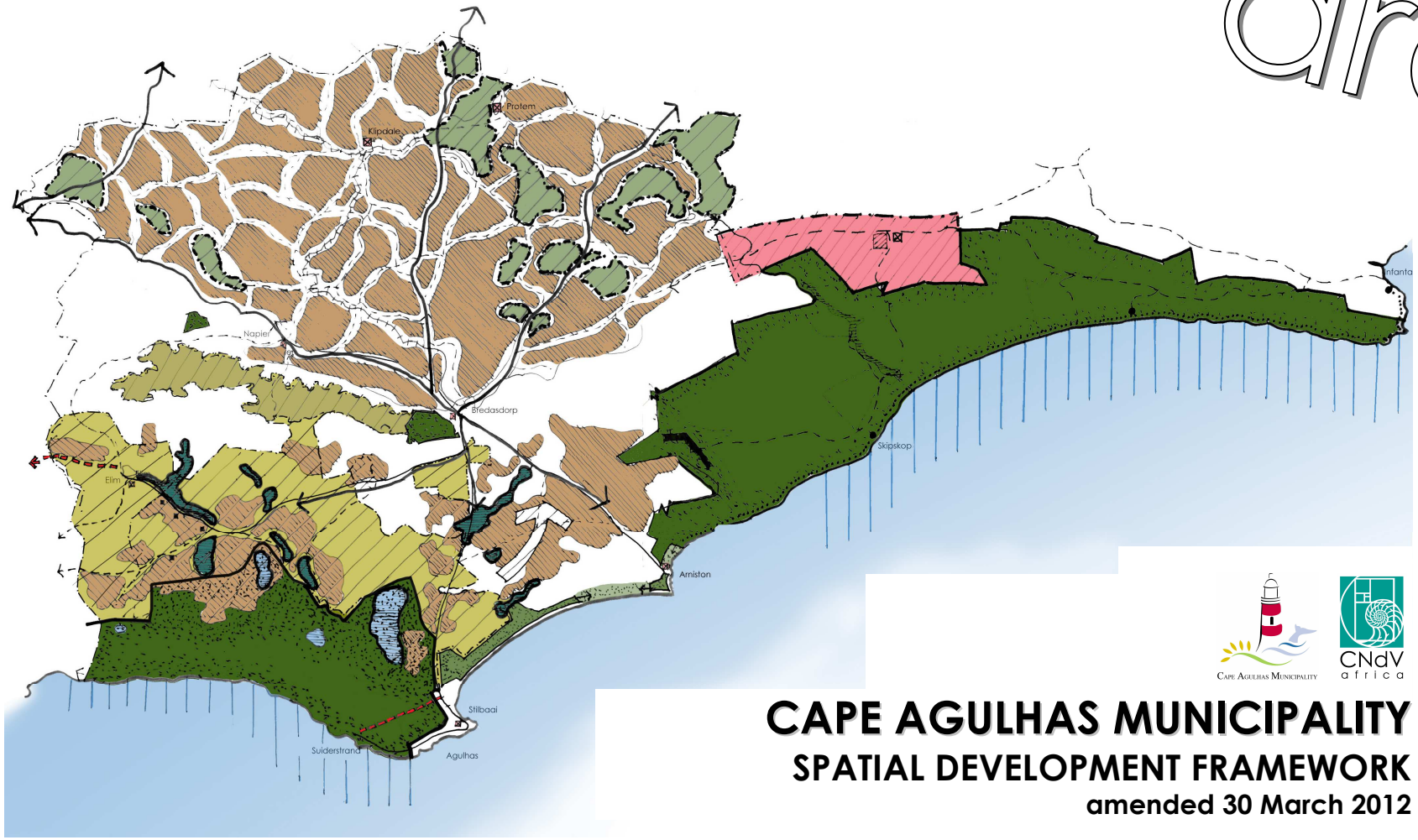


# CAPE AGULHAS MUNICIPALITY

## SPATIAL DEVELOPMENT FRAMEWORK

**amended 30 March 2012**

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## SPATIAL DEVELOPMENT FRAMEWORK

draft

prepared for

CAPE AGULHAS MUNICIPALITY


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# CONTENTS

# LIST OF FIGURES

## LIST OF TABLES



## LIST OF GRAPHS

## LIST OF PHOTOS

# GLOSSARY OF TERMS

| | |
|---|---|
| ABI | Agulhas Biodiversity Initiative |
| CAM | Cape Agulhas Municipality |
| CBD | Central Business District |
| CZP | Coastal Zone Policy |
| DFA | Development Facilitation Act |
| DME | Department of Minerals and Energy |
| DTI | Department of Trade and Industry |
| GDP | Gross Domestic Product |
| GLA | Gross Leasable Area |
| I&AP | Interested and Affected Parties |
| IDP | Integrated Development Plan |
| IEMP | Integrated Environmental Management Plan |
| IT | Information and Technology |
| LUMS | Land Use Management Schemes |
| MEDS | Micro-Economic Development Strategy |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NGO | Non Governmental Organisations |
| NSDP | Nation Spatial Development Perspective |
| ODM | Overberg District Municipality |
| PGDS | Provincial Growth and Development Strategy |
| RIDS | Regional Industrial Development Strategy |
| SDF | Spatial Development Framework |
| SDP | Spatial Development Plan |
| SEA | Strategic Environmental Assessment |
| SIP | Strategic Infrastructure Plan |
| SMME | Small, Medium and Micro Enterprises |
| SoER | State of the Environment Report |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| UNESCO-MAB | United Nations Educational, Scientific, and Cultural Organization - Man and the Biosphere (MAB) |
| WCPSDF | Western Cape Provincial Spatial Development Framework |

# 1. INTRODUCTION

## 1.1 PURPOSE OF THIS REPORT

The purpose of this report is to describe the status quo analysis and conclusions of the Municipal Spatial Development Framework (SDF) for Cape Agulhas and the Overberg District Management Area (DMA)- hereafter together called Cape Agulhas Municipality (CAM) unless otherwise stated. Figure 1.1.1 shows the study area of the SDF.

The report is structured in the following manner:

Section 1 describes the purpose and need for an SDF.

Section 2 describes a number of national guidelines and concepts all of which have a bearing on the SDF.

Section 3 describes the approach and overarching principles.

The current status quo in the Cape Agulhas and DMA is described in Section 4 under the following subsections:

- Natural Systems;
- Built Systems; and
- Socio-economic systems.

A summary of the main findings of this report is given in Section 5.

The main issues that the SDF must address are summarised in Section 6.

## 1.2 WHAT IS AN SDF AND WHY IS IT NEEDED?

The spatial management of growth in urban and rural environments due to rapid urbanisation rates and the subsequent impact on resources was previously done through the Guide Plans and Structure plans. These took the form of rather inflexible master plans which were underpinned by the principles of discrimination and separate development.

The new democratic government, post 1994, adopted a new system of spatial planning described in principle in the Development Facilitation Act and Municipal Systems Act. This new system had two components to it.

The first was an indicative plan or Spatial Development Framework (SDF) that was intended to show desired patterns of land use, directions for future growth, indicate the alignment of Urban Edges, and depict special development areas.

The impact of SDFs was limited to providing policy to guide and informing land development and management. They did not change or confer real rights on land.

The second component was the Land Use Management System (LUMS). This is similar to a town planning or zoning scheme. In many instances where they haven't been replaced or repealed these still take the place of LUMS. In contrast to SDF's LUMS have a binding effect on the development rights attributed to land and confer real rights on properties.

Because development in Municipalities is dynamic and responds to changing socio-economic and environmental circumstances, it is impossible to predict the exact requirements of development rights in every instance, therefore, LUMS may be amended from time to time to take into account these changing circumstances. This is normally achieved through the processing of rezonings, subdivisions and removal of title deed restrictions applications. It is in these instances where SDF's play an important role in guiding appropriate future change and helping to guide motivations as to the need and desirability, or not, of proposed land use changes.

Section 7 contains the SDF and its recommendations.

Area-wide and Sector Plans are contained in Section 8 and 9 respectively.

The Spatial Development Framework is described in Section 10.


**Figure 1.1.1 Study Area**

Because of their guiding and informing nature SDF's also have a number of other important roles in addition to guiding LUMS.

These include:

- Giving effect to the principles contained in the Development Facilitation Act Chapter 1, see Section 2.1.1;
- Setting out objectives that reflect the desired spatial form;
- Defining strategies and policies to achieve these objectives which must indicate, amongst others:
  - the desired pattern of land use;
  - how spatial reconstruction will be addressed; and,
  - providing strategic guidance in respect of the location and nature of development. (In this regard it should be noted that the SDF's should inform the investment decisions of the public ***and the private*** sectors.)
- Set out a capital investment framework for development programs (this will mainly inform public sector investment priorities);
- Include a Strategic Environmental Assessment (SEA) in the compilation of the SDF;
- Identify programs and projects for development of land;
- Be aligned with neighbouring Municipal SDF's; and,
- Provide a visual representation of the desired spatial form with the Municipality in the form of a map which must indicate the following:
  - public and private land development and infrastructure investment;
  - desired and undesired use of land;
  - may delineate the Urban Edge;
  - identify areas for strategic investment;
  - show where policy intervention is needed; and,
  - indicate where public authority spending is required.

## 1.3 LEGAL STATUS OF THE SDF

Within the limitations of a SDF as laid down by the Local Government Municipal Systems Act, 2000 (Act 32 of 2000) i.e. that it should be a guiding and informing document and does not confer real rights on land, it is intended that the SDF should be a binding document endorsed by Municipal Council and approved by the Provincial Administration in terms of Section 4(6) of the Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985). Without this endorsement it will be difficult for the recommendations to have any meaningful impact on future development patterns in the district.

## 1.4 RELATIONSHIP WITH OTHER PLANS

The SDF links the development objectives taken from the Integrated Development Plan (IDP) and the Budget of the particular municipality. Therefore, the SDF becomes the spatial presentation of the IDP objectives that guide projects funded through the budget of the local municipality. This link between the SDF, IDP and Budget is shown in Figure 1.4.1.

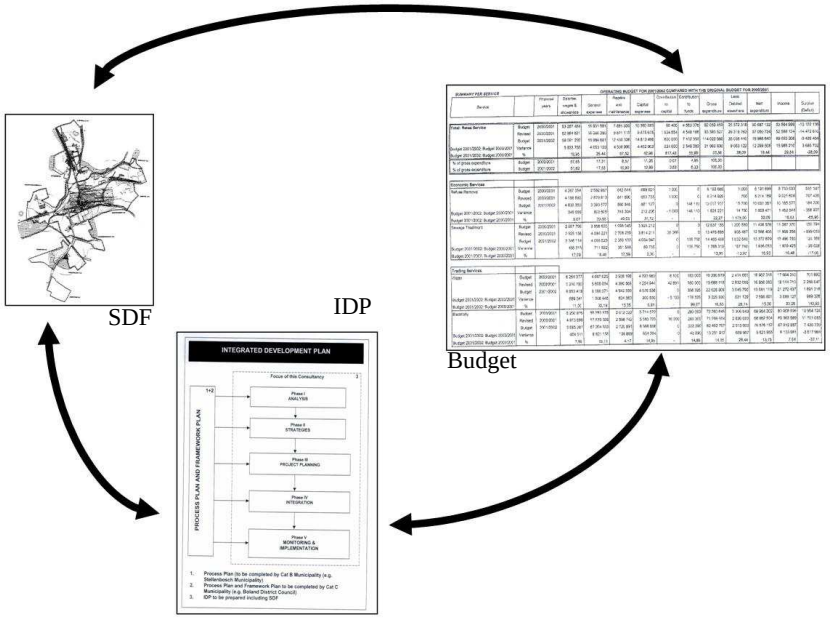



**Figure 1.4.1 Link between SDF/IDP/Budget**

The Cape Agulhas and DMA Municipal SDF is further linked to other spatial policies at different levels of detail depending on their level of jurisdiction. The National Spatial Development Perspective (NSDP) provides the broad national development goals, objectives and strategies. This informs the Western Cape Provincial SDF (WC-PSDF) that was endorsed by Provincial Cabinet in December 2005. The WC-PSDF in turn informs the Overberg District Municipal SDF (OD-MSDF) that is currently being updated. The OD-MSDF then informs the preparation of the Cape Agulhas and DMA Municipal SDF. It should be noted that the hierarchy is not only top down but also bottom up, i.e. the lower level plans also inform the higher level plans through the updating process as a result of more local level detailed information. The lower the level of the plan the more detailed the plan becomes and vice versa. This is illustrated in Figure 1.4.2.

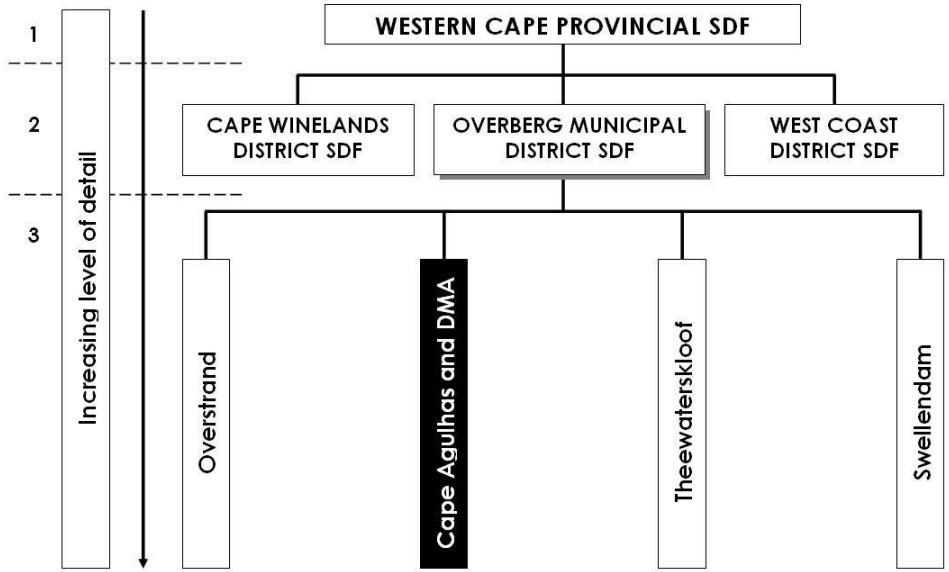



**Figure 14.2 Layers of SDF and Level of Details**

## 1.5 CONSULTANT'S BRIEF

# 2. POLICY ARENA

There are a number of sets of Acts, policies and guidelines to be considered in the preparation of the SDF. The following section spells out some of the more important documents in this regard.

## 2.1 NATIONAL POLICY

### 2.1.1 DFA Principles

The Development Facilitation Act (DFA) provides an important set of overarching guidelines in the principles contained in Chapter 1 of the Act, in the Western Cape, see Figure 2.1.1.1.

- Promote efficient and integrated land development:
  - Integrate social, economic, institutional and physical aspects of land development;
  - Integrate land development in rural and urban areas;
  - Promote availability of residential and employment opportunities in close proximity to each other;
  - Optimise the use of existing resources;
  - Promote a diverse combination of land uses;
  - Discourage the phenomenon of urban sprawl and contribute to development of more compact towns and cities;
  - Contribute to the correction of historically distorted spatial patterns of settlement in the Republic; and,
  - Encourage environmentally sustainable land development.

**Figure 2.1.1.1 DFA : Chapter 1 - Land Development Principles**

Key Themes contained in these principles include:

- Socio-economic integration;
- Rural and urban integration;
- The promotion of high levels of access that could minimise the need for the use of the private motor vehicle; and,
- Limiting urban sprawl so as to increase urban efficiencies relating to business thresholds and minimise the impact of urban growth on agricultural land, areas of scenic beauty and areas of high biodiversity potential.

SDFs should indicate how they effectively contribute to achieving these principles.

### 2.1.2 NSDP Spatial Guidelines

The National Spatial Development Perspective (NSDP) is an effort by National Government to find the best way of allocating scarce resources in the various geographic regions in the country. The basic premise of the NSDP is that if there are not enough resources to satisfy all needs wherever they may occur then they should be allocated to where the benefits will be greatest.

The NSDP takes the form of a spatial narrative, a set of maps and a strategic response. Using these tools, the NSDP objectives are to:

- Provide a framework within in which to discuss future development;
- Act as a common reference point for national, provincial and local government for the analysis of development potentials;
- Identify areas of tensions/ priority in achieving positive spatial outcomes with government infrastructure;
- Provide governments response to the above mentioned for a given time period.

"The NSDP is unique in the sense that it proposes a mechanism that will link local, provincial and national planning in one integrated system of planning for development." (source: NSDP)

There are five major principles of the NSDP:

- Economic growth is most likely to continue where it has previously occurred and therefore economic potential will be highest in these localities (NSDP, pg 24);

- Economically active people will tend to move to localities where jobs or other livelihoods are available (NSDP, pg 24);
- Efforts to address past social inequalities should focus on people and not in places where it will be difficult to promote sustainable and economic growth (NSDP, pg 24);
- It is important that people are trained and skilled to participate effectively in the economy. Because of the tendency of people to move to areas of greatest opportunity especially when they have skills, programs in areas with low economic development potential should focus on enhancing people skills rather than the construction of fixed infrastructure. This will avoid the risk of such investment becoming redundant if people move away or there is not sufficient demand to justify high levels of expenditure;
- Future government spending on infrastructure and development should be in localities that would not become poverty traps (NSDP, pg 25);

Figure 2.1.2.1 illustrates the principles of the NSDP Spatial Guidelines.

Centres which have existing or potential economic growth should be the priority for economic investment, i.e. fixed infrastructure such as housing, underground services and roads. Centres with low economic potential should not be priorities for fixed infrastructure. However, social capital programs such as health, adult basic education and training, entrepreneurship development, and business and technical training should be directed to wherever people may require them. In this way, should the recipients decide to move to other centres, they will, in effect, be able to take this investment with them.

Facilities for the delivery of these programs in centres or areas of low economic potential should use and share existing facilities. In many of these locations there are under-utilised school buildings, clinics, etc. which could be refurbished and used as multi-purpose centres.

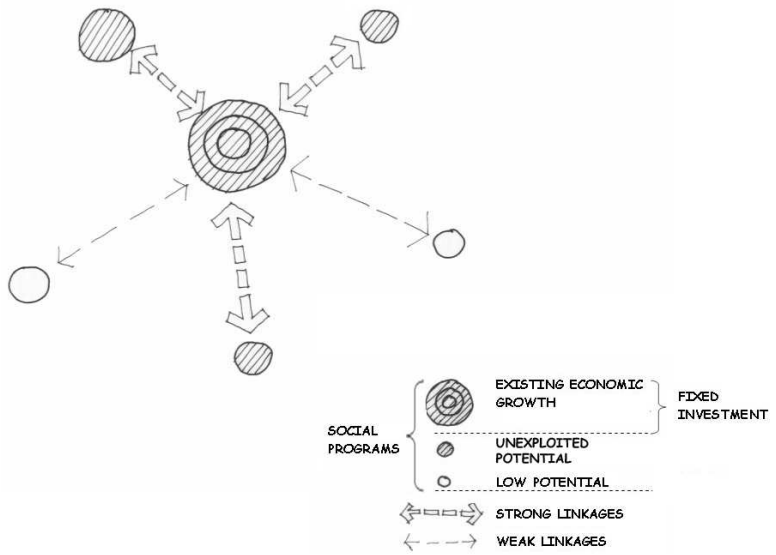



**Figure 2.1.2.1 Principles of the NSDP Spatial Guidelines**

The NSDP also recognises that development potential tends to be greatest along linear corridors or axes, see Figure 2.1.2.2. This is as a result of the relationship between urban nodes of opportunity and the transport and communication routes that connect them. In some instances a river whose banks also have enhanced economic opportunities could also give rise to linear development corridors as zones of investment priority.

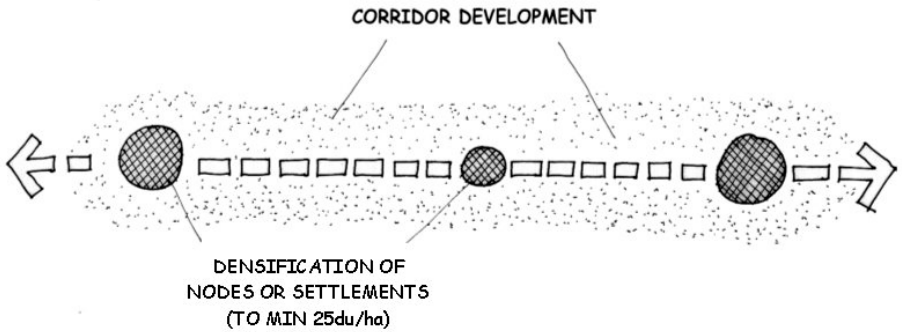



**Figure 2.1.2.2 Development Potential along Linear Corridors**

***Difficult Choices and Decisions***

The principle of allocating investment into areas of greater economic potential is considered controversial in situations where there is a concern that this might lead to socio-economic or spatial marginalisation of areas of less economic potential. While this is a valid concern, it needs to be clearly understood that in spatial terms resources are not equally distributed.

Figure 2.1.2.3 illustrates the difference between ideal relationships where all space is equal, people are distributed evenly across that space, and resources and opportunities are also equally distributed and reality which is that space is warped by topography, the unequal distribution of mineral resources, and the greater concentration of ecosystem services such as water, soil fertility, areas of biodiversity, in some areas than in others.

As a consequence of the warping of these patterns different parts of the landscape have greater opportunities than others. This, in turn, is reflected by the uneven development of infrastructure providing access to these areas of opportunity.

This leads to a similarly biased or uneven pattern of economic potential and population distribution.

It is important that the uneven pattern of these very powerful underlying forces is understood when resources are being allocated so as to minimise wastage and inefficiencies.

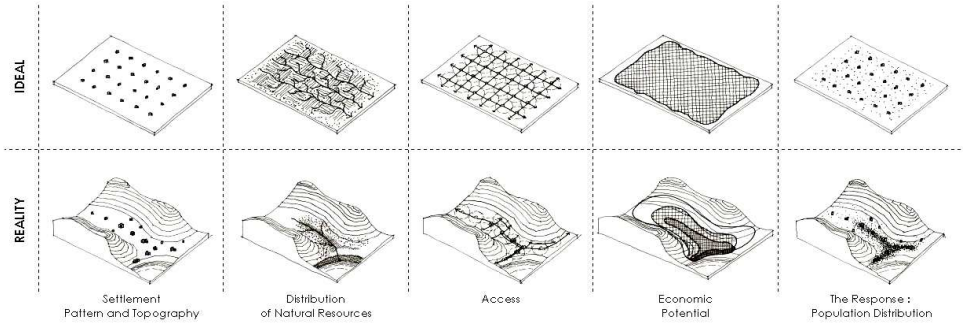



**Figure 2.1.2.3 Differences between Ideal and Actual Patterns of Resources and Opportunities**

In summary, the NSDP aims to direct where government invests its money. It targets areas that have high economic growth potential for the infrastructural (major physical) and social investment. Other areas that do not have high economic growth potential may receive only social capital investment i.e. investing in people, in educating, empowering, and uplifting the people.

It is argued that people who are located in areas of low or no economic growth potential will most likely move to areas of higher economic growth potential and in that way the investment in infrastructure in the low economic growth potential areas will be wasted. Therefore, it is considered more beneficial to invest in the people who can then take the skills with them. Alternatively the people may improve their current living conditions and standards in areas of low growth potential which may eventually result in their area improving its economic potential. By following this strategy government would have invested wisely and ensured the best return for public investment.

***Implications for the SDF***

- All settlements are deserving of human development programs
- Fixed infrastructure to be strategically located so as to ensure compliance with above NSDP principle

***Implications for Cape Agulhas***

- Much of Cape Agulhas resides on the periphery of the South African space economy;
- Many of its settlements can be considered to have low economic growth potential;
- Therefore, human development programs rather than fixed economic infrastructure investment should be the primary form of state intervention in these areas; and,
- This policy will have implications for the future of Klipdale and Protem and possibly other settlements.

### 2.1.3 Department of Environmental Affairs and Tourism: South Africa's National Biodiversity Strategy and Action Plan

The Department of Environmental Affairs and Tourism prepared the National Biodiversity Strategy and Action Plan (NBSAP) "to develop a plan of action for the conservation and sustainable use of the country biological diversity."

During the NBSAP preparation, the National Biodiversity Implementation Plan identified objectives, outcomes and activities required for the NBSAP to achieve its goals.

These objectives and targets include:

- ***Strategic Objective One***: A policy and legislative framework that allows the integration of biodiversity management objectives into the economy.
  *Targets:*
  - South Africa is to meet its international obligations with regards to biodiversity
  - Biodiversity issues become integrated in the macro-economy, informing policy, planning, budgeting and decision making at all levels

- ***Strategic Objective Two***: Ensure good governance in the biodiversity sector by enhancing institutional effectiveness and efficiency.
  *Targets:*
  - Biodiversity concerns occupy a significant place on the national agenda
  - Government, stakeholders and role-players work together (effectively and efficiently) to achieve biodiversity management objectives

- ***Strategic Objective Three***: Integrated terrestrial and aquatic management to minimise the impacts of threatening processes on biodiversity, enhances ecosystem services and improve socio-economic security.
  *Targets:*
  - By focusing on programmes aimed at poverty alleviation, effective control of priority invasive species is achieved
  - Meet biodiversity objectives within all biodiversity priority areas
  - Produce disaster prevention and management plans incorporating wise ecosystem management principles and practices
  - Genetically modified organisms which threaten biodiversity, are not to be released into the environment
  - Consider biodiversity in all aspects of resource use

- ***Strategic Objective Four***: Enhance human well being and development by enhancing the sustainable use of biological resources and equitable sharing of benefits.
  *Targets*:
  - Economies based on the use of species and genetic resources are optimized and sustainably managed
  - Priority fish stocks recover to sustainable levels
  - No species status declines
  - National products sector contribution to GDP grows by 50%
  - With more effective and equitable resources, poverty is alleviated

- ***Strategic Objective Five***: Maintain key ecological processes across the landscape and seascape.
  *Targets:*
  - Comprehensive biodiversity monitoring systems inform planning
  - Protected area network in marine environmental hence contribution to representation targets in priority areas
  - No further loss of endangered ecosystems
  - Establish protected environments and manage effectively

***Implications for Cape Agulhas***

- A major portion of the Municipality is covered by sensitive biodiversity.
- There is a need to have sensitive biodiversity areas mapped and clear and appropriate guidelines to guide their conservation.

### 2.1.4 Regional Industrial Development Strategy (RIDS)

The Department of Trade and Industry (DTI) Regional Industrial Development Strategy (RIDS) seeks to move South Africa's industrial development policy from the apartheid era's top-down localized approach to a bottom-up approach that treats regions as functional entities and builds on locally available skills and resources and relies on external investment. (The DTI, Draft Regional Industrial Development Strategy, June 2006, pg 16)

Therefore, it also seeks to strengthen world-class regions. These are high performance regions that contain companies or networks of companies which need to constantly upgrade so that they do not fall behind in global competition. (The DTI, ibid)

One strategy here is to concentrate a critical mass of firms in a chosen industry sector together with its upstream suppliers and service providers in a specific geographic location. Necessary support infrastructure includes transport, logistics, communications, education and training. Gauteng's Blue IQ is an example of such a regional economic development strategy.

RIDS identifies four levels that determine systematic competitiveness, see Figure 2.1.4.1.

National and regional industrial development policy is responsible for the Meta and Macro levels. It is at the Meso and Micro levels where district and local municipal policies can have the greatest effect.

Figure 2.1.4.2 overleaf, indicates that Overberg District Municipality in which the CAM is located only has a static to modest economic growth potential in comparison to the West Coast, Cape Winelands and Eden District Municipalities (significant to high growth potential).

***Implications for Cape Agulhas***

- Figure 2.1.4.3 illustrates that economic activity increases from east to west across the Overberg district peaking around Hermanus, Elgin / Grabouw and Swellendam. There is also a peak around Bredasdorp in the CAM.

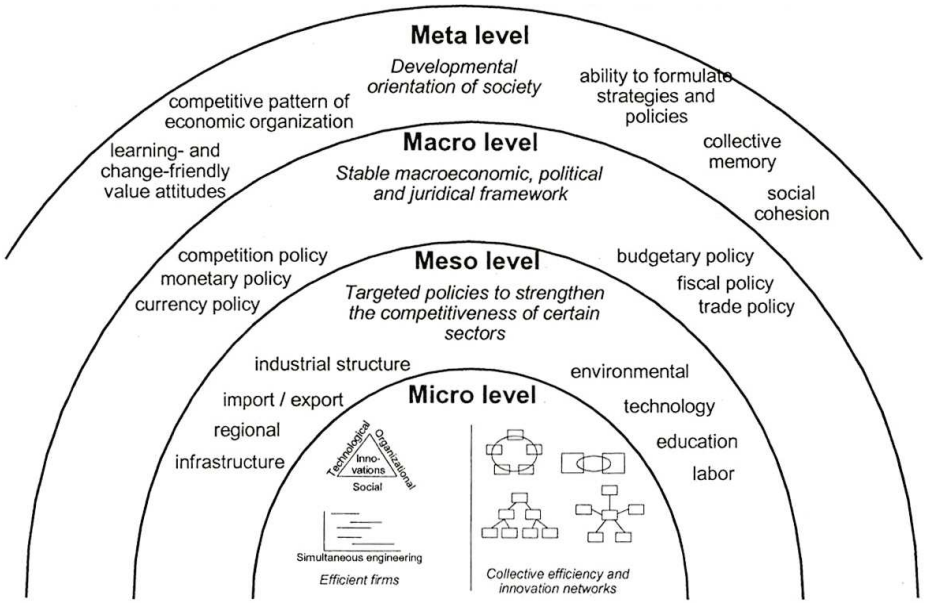



**Figure 2.1.4.1 Determinants of Systemic Competitiveness**
(source: Draft Regional Industrial Development Strategy, DTI, 2006, pg20)

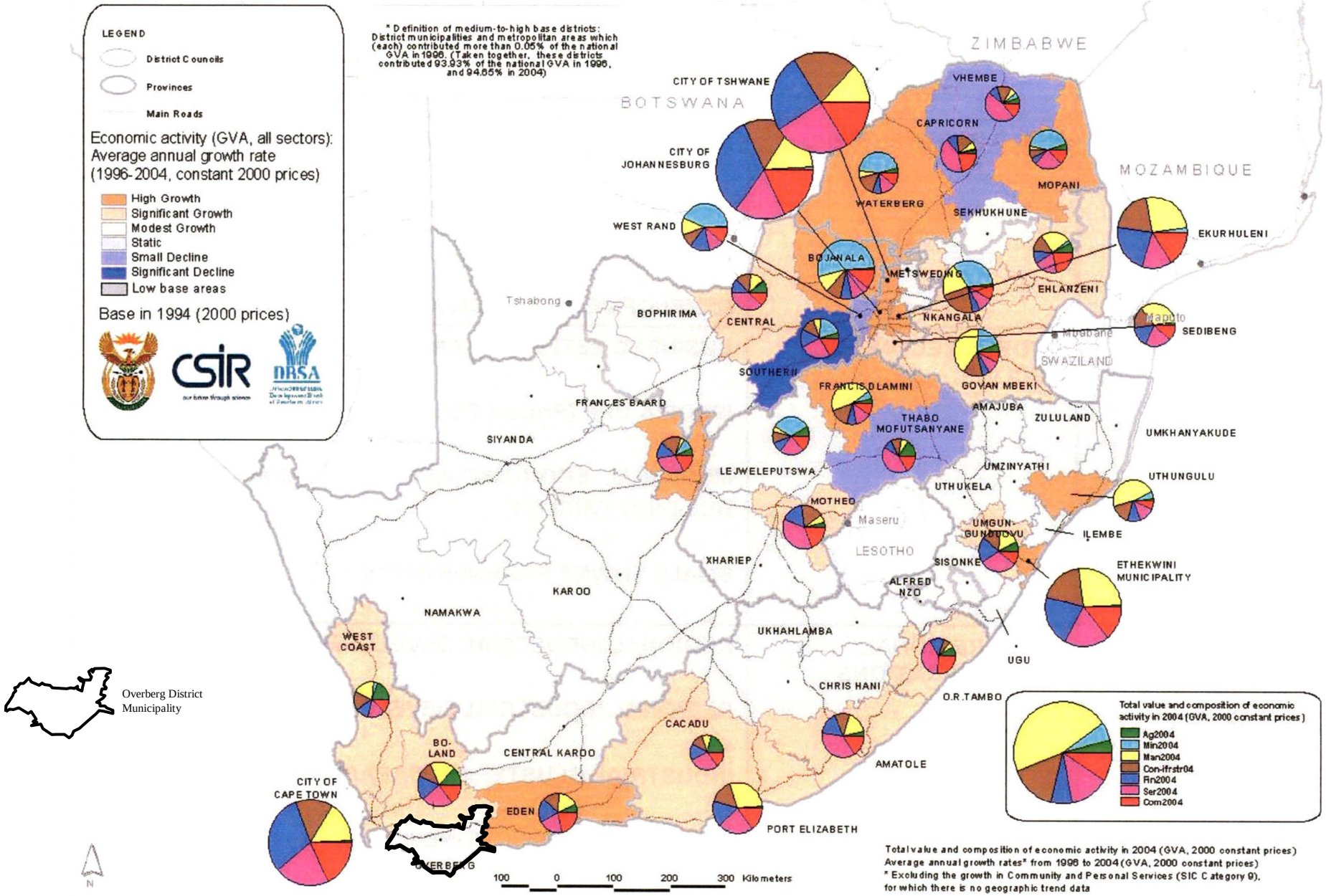



**Figure 2.1.4.2 Medium to High Base Areas** (source: CSIR, 2006)

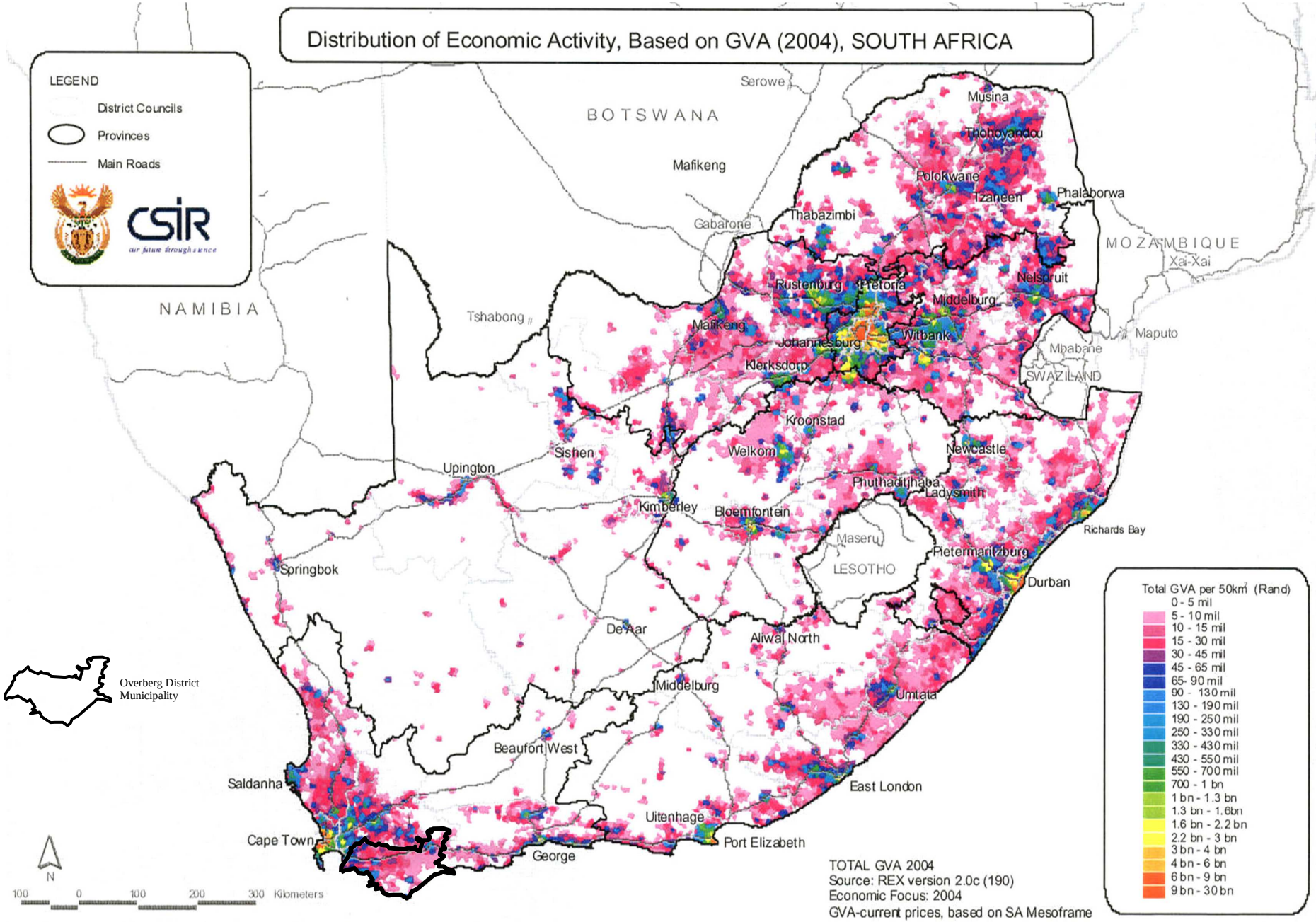



**Figure 2.1.4.3 Distribution of Economic Activity, based on GVA** (source: CSIR, 2006)

## 2.2 PROVINCIAL POLICIES

### 2.2.1 Western Cape Provincial Spatial Development Framework (WC-PSDF) (2009)

The WC-PSDF aims to:

- "Be the spatial expression of the Provincial Growth and Development Strategy;
- Guide IDP's, SDF's and provincial and municipal SDP's;
- Help prioritise and align investment and infrastructure plans other provincial departments as well as national departments;
- Provide clear signals to the private sector about desired development directions;
- Increase predictability in the development environment;
- Redress the spatial legacy of apartheid."

Figure 2.2.1.1 indicates the strategic direction of the WC-PSDF.

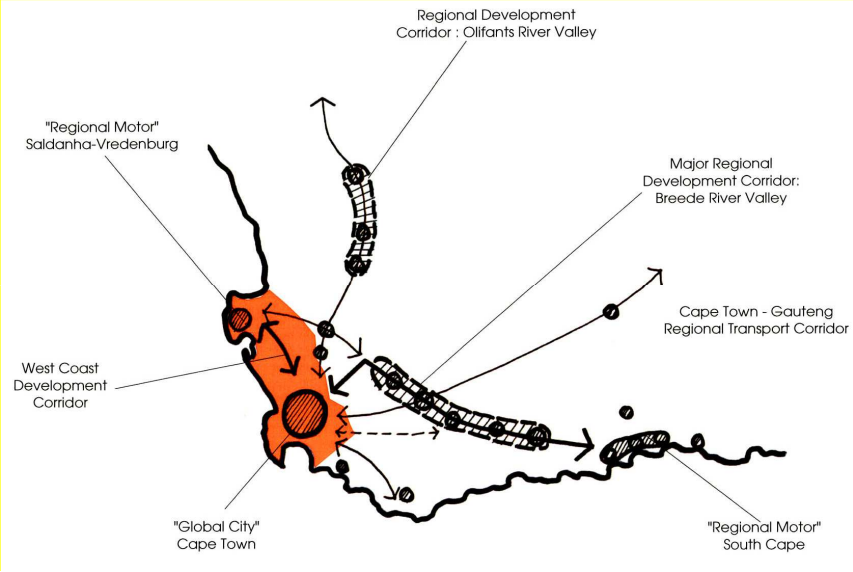



**Figure 2.2.1.1 Patterns of Economic Activity** (source: PSDF, 2005)

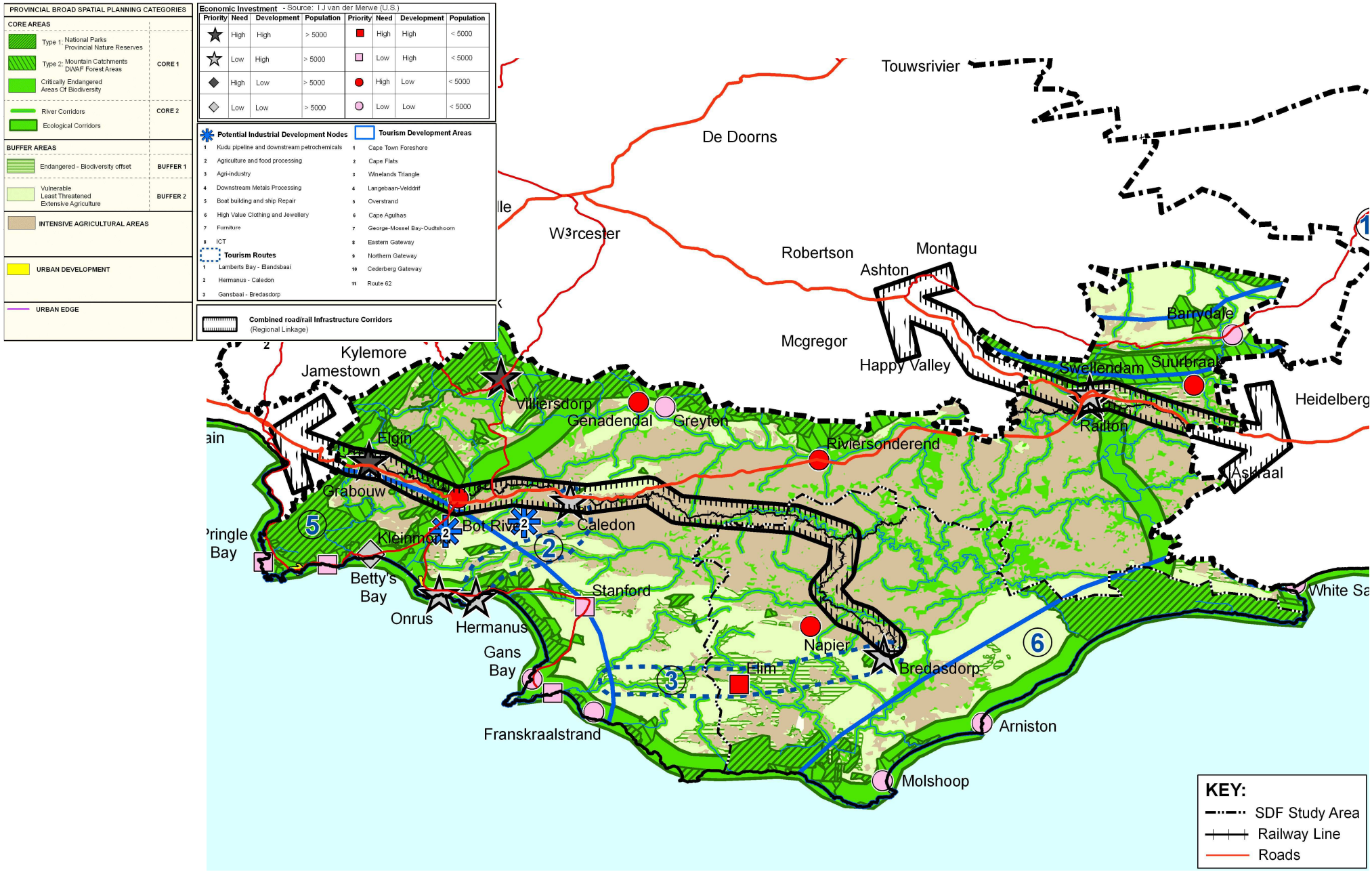



**Figure 2.2.1.2 WCPSDF : Overberg** (source: PSDF, 2005)

Implications for the Overberg District Municipality in the WC-PSDF includes:

- There are high levels of in-migration;
- In the coastal zone there is conflict between tourism/resort development and the protection of coastal ecology;
- Agriculture on the Agulhas Plain should be integrated with biodiversity conservation;
- There are water shortages which occur in coastal settlements over the December period.

Figure 2.2.1.3 summarises the implications of the PSDF for the SDF.

Strategies to address these issues, some of which are depicted on Figure 2.2.1.2, include:

- Resolving conflicts in the need to protect biodiversity and support agriculture in the Agulhas Plain;
- Securing access to fishing rights for coastal fishing communities;
- Managing of pressures on coastal resources in the Overberg coast by intensifying urban settlements and controlling development outside their Urban Edges;
- Investigating a road / rail minor development corridor from Bredasdorp via Caledon to Cape Town;
- Upgrading the tourism route between Gansbaai and Bredasdorp via Elim;
- Investing in one of the province's tourism development areas from Cape Agulhas to Witsands; and,
- Investigating the potential of the airport near Bredasdorp for its commercial and tourism potential.

The relative economic development ranking of the main settlements is as follows:

| Priority rating | Settlement | Need | Development Potential | Popn |
|---|---|---|---|---|
| 1 | Bredasdorp | High | High | > 5000 |
| 2 | Elim | High | High | < 5000 |
| 3 | Napier | High | Low | < 5000 |
| 4 | Struisbaai / Arniston | Low | Low | < 5000 |

**Table 2.2.1.1 Growth potential of settlements**

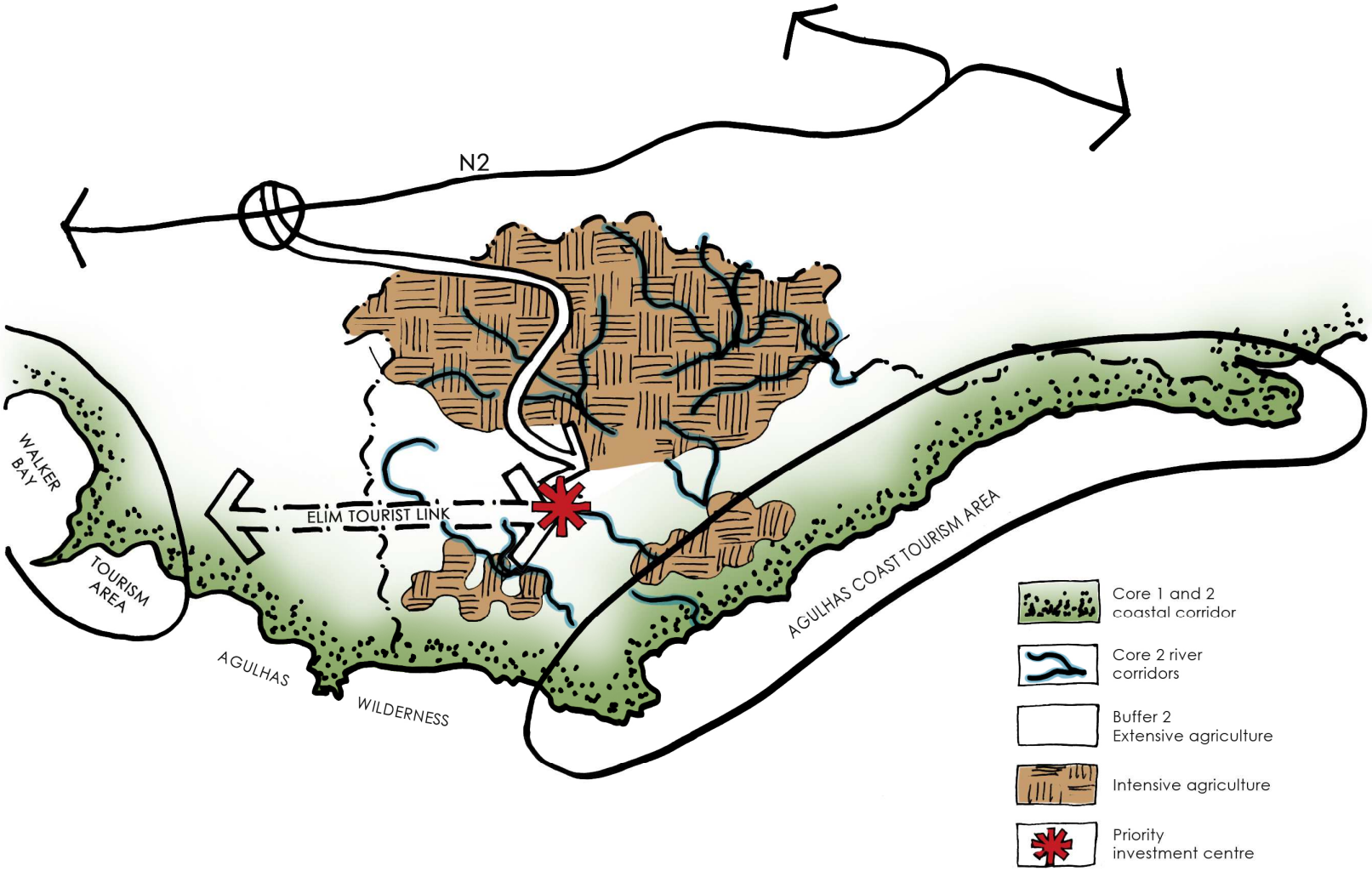



**Figure 2.2.1.3 Implications of the PSDF for the Cape Agulhas SDF**

### 2.2.2 Strategic Infrastructure Plan (SIP), Provincial Government: Western Cape Department of Public Works and Transport, May 2006

The Strategic Infrastructure Plan has been formulated in line with the WC-PSDF and Micro-Economic Development Strategy to determine the requirements to improve growth and development for the Western Cape.

Each sector of the SIP describes the current situation, what the plan would like achieve by 2015 and methods of how to achieve this goal.

The six key aims that have been identified by the SIP are:
- Increasing economic growth;
- Improve well being;
- Linking with WC-PSDF to attain sustainability;
- Fostering creativity;
- Building communities; and
- Expanding opportunities.

The eleven sectors that have been identified aim to achieve results in terms of sustainable development, economic viability and social equity in the province (implications for CAM are shown in italics):

| Sector | Current status / proposals for Overberg |
|---|---|
| Transport | • Improve public transport in rural areas,<br>• Introduce a fare management system for the whole province<br>• New road to Agulhas to promote Agulhas/Bredasdorp as a tourism destination<br>• Gain approval to upgrade the Bredasdorp-Heidelberg Road |
| Land and Property | *No reference to Overberg* |
| Information & communication technology | • Currently planning or implementing Information and Technology (IT) based performance management systems in municipalities |
| Energy | *No reference to Overberg* |
| Environment | • Agulhas Biodiversity Initiative |
| Community services | *No reference to Overberg* |
| Health | *No reference to Overberg* |
| Justice and security | *No reference to Overberg* |
| Risk Reduction & Emergency Management | *No reference to Overberg* |
| Tourism and Recreation | Tourism trading areas are:<br>• Overstrand (Rooi Els to Pearly Beach)<br>• Cape Agulhas (Struisbaai, Arniston, De Hoop) |
| Education and skills | *No reference to Overberg* |

### 2.2.3 Provincial Urban Edge Guideline

The following is extracted from the Provincial Urban Edge Guideline dated December 2005. (ref: DEADP, 2005)

An Urban Edge is a demarcated line to contain, manage, direct and control the outer limits of development around an urban area. The intention of an Urban Edge is to establish limits beyond which urban development should not occur and to promote urban and environmental efficiency, effectiveness and economy in the interest of all.

The function of an Urban Edge is three-fold, namely:

- It is a means of restructuring the urban areas and integrating the currently segregated social groups and urban uses;
- It is a growth management tool, used to limit sprawl and the outward growth of urban areas, in favour of densification and infill development, to ensure the more efficient use of resources and land within the urban area; and
- It is a conservation tool, used to exclude certain elements of the environment from the urban area, in order to protect or preserve it, or to discourage its development in the short and medium term, while the long term implications are uncertain.

Urban development includes all development of land where the primary use of the land is for the erection of structures. Residential estates on farms and golf estates would for this purpose, if located outside the Urban Edge, be defined as urban uses, albeit that the "primary use" is "agriculture" or "private open space" and the "secondary use" is residential.

Agricultural uses, open space uses, conservation areas, transport zonings (excluding public transport interchanges, ranks and stations that consist mainly of buildings) and many similar use zonings refer to the use of the land rather than buildings erected on the land in order for the use to occur. These are non-urban uses.
Smallholdings used for bona fide agricultural purposes would or should

typically be excluded from the urban area by delineation of an Urban Edge.

Golf courses, polo fields and other sporting facilities with low intensity structural development are seen as rural in nature, whereas a golf estate, i.e. a golf course with housing, is an urban use, unless it is a resort. Agricultural estates, i.e. farms with a large residential component for owners or shareholders (as opposed to bona fide labourer's residences) or for unrelated freehold or sectional title ownership are seen as urban if the density exceeds one unit per ten hectare.

The following issues, criteria and factors are regarded as informants when considering Urban Edges for the urban areas:

- Services infrastructure (barrier effect);
- Services infrastructure (capacity and reach);
- Vacant! under-utilised land in urban area;
- Availability of developable land in urban area;
- Higher order roads, access routes and transport infrastructure;
- Cadastral boundaries of adjoining land units;
- Growth requirements over predetermined period;
- Land use applications for new development;
- Visual impact;
- Cultural! heritage resource areas;
- Ownership of land and existing land use rights;
- Informal settlements;
- Urban agriculture and small scale farming;
- Bio-regional spatial planning categories (core and buffer); and
- Density policy for residential development in rural towns.

Given the criteria, issues and facilities for determining Urban Edges, Urban Edges should be determined to:

- Exclude prominent landforms and environmental character areas from the urban area;
- Exclude valuable soils for agricultural purposes;
- Exclude valuable soils for mining purposes;
- Exclude surface and ground water resources that could be used to produce potable water;
- Exclude surface and ground water features;
- Exclude ecological resources and establish suitable; ecological corridors to link resource areas;
- Exclude all statutorily declared, proclaimed and protected natural areas;
- Exclude high intensity use and high potential agricultural resources and activity areas;
- Exclude scenic routes and routes of tourism significance;
- Exclude cultural and heritage resource areas and sites;
- Exclude areas that have visual sensitivity, skylines, mountainsides, ridgelines and hilltops; and
- Exclude the WC-PSDF defined core areas.

**Implications for Cape Agulhas**

In the case of Cape Agulhas the following informants, amongst others will play a critical role in the determination of the Urban Edge.

- Agricultural land: currently farmed land, high potential agricultural lands, agri-processing (e.g. wine tasting facilities, restaurants and guesthouses);
- Rivers, Wetlands and floodplains: 1:50 year flood plain, 1:100 year floodplain and the 30 m buffer zone around river corridors;
- Heritage aspects such as landscapes, viewsheds, rural landscapes and gateways;
- Topography: major topographical features, e.g. Hills, ridgelines and focal points; Visual or aesthetic quality or scenery, slopes;
- Existing policy plans for desired direction and pattern of growth.

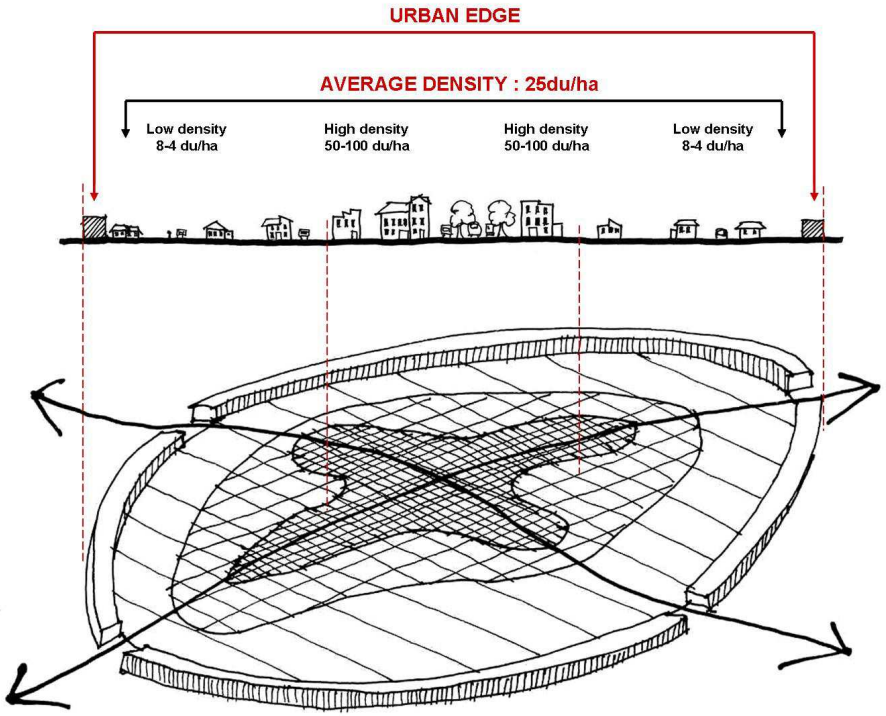



**Figure 2.2.3.1 Densification and the Urban Edge Concepts**

### 2.2.4 Guidelines for Resort Developments in the Western Cape

The term **resort** is understood to refer to holiday and recreational resorts which carry, or require, a **resort zoning** in terms of the relevant zoning scheme. (DEA&DP, 2005)

Hotels, guest houses, holiday apartments and bed-and-breakfast establishments in urban areas, such as could ordinarily be permitted under a business, general residential or other non-resort type zoning, are also not seen to be included in these guidelines.

Given the above it is generally used as a departure point that accommodation in resorts should be aimed at temporary occupation, to give more people access to the natural resources of the Western Cape. Care should therefore be taken that resort zone applications do not become vehicles for covert, permanently inhabited township establishments, which may often be described as "*exclusively elitist*". (DEA&DP, 2005)

As a general rule, the guidelines state, *freehold ownership associated with resort zoning* (that is, holiday housing, such consent use in a Resort Zone, or Resort Zone II, whether individual erf, sectional title, block sharing or other) *is not desirable in any area outside the Urban Edge*. (DEA&DP, 2005)

The following are the most important criteria for the location of a resort :

- **Planning Policies**

The planning policies include non spatial policies such as IDP's as well as spatial policies such as WC-PSDF, Urban Edge Guidelines, SDF's, Urban Edges, Bioregional Planning policies, etc.

- **Availability of a Resource**

Resort applications outside urban areas can only be considered for approval if linked to a distinct resource (unless the area in question has already been demarcated for, amongst others, resort development in terms of an officially approved SDF or SDP). This mentioned resource relates to any amenity that results in recreation, that is, an area with special recreational attributes:

- usually a natural feature that includes physical amenities such as a hot water spring, sandy beach, lake, lagoon or river. The latter may nevertheless, for example, only become relevant as a resource;
- occasionally, an already existing, established, man-made feature, either within Urban Edges or in rural areas;
- of such nature that it makes the subject property particularly favourable overall above any other in the area. (This means that it must be advantageously comparably distinguishable from surrounding properties) (ref: DEADP, 2005);
- of high enough value for many holidaymakers to want to travel thereto from afar and spending more than one day there
- accessible for the benefit of the general public, and
- inseparable from the proposed resort to the extent that the permanence of access from the resort to the resource can be guaranteed. (DEA&DP, 2005)

Lastly it must be a unique resource and the carrying capacity of the resources and surroundings must be taken into consideration.

The guideline further proposes densities and floor areas:

- small: 1-10 units - floor area not being more than 120m² per unit
- medium: 11-30 units - floor area not being more than 120m² (or up to 175m² in sensitive natural/cultural heritage areas within the Urban Edge) per unit and total floor area of all buildings not being more than 3 600m²
- large: 30-50 units, or, should there be less than 30 units, but the total floor area of all buildings still exceeds 3 600m² (approval of a resort of more than 50 units, though not impossible is not considered to be the norm)

In terms of area densities the following are proposed:

| | | Maximum permitted number of units | |
|---|---|---|---|
| Generalized visual carrying capacity | Landscape type | Short term rental accommodation units | Units that can be individually alienated/ seperately allotted to individuals |
| High and medium | Mountains and hills | 1 unit per 10ha | 1 unit per 20ha |
| Low | Plains | 1 unit per 50ha | 1 unit per 100ha |

Note: Local Municipalities, as part of their SDFs, or on a project basis funded by applicants, should determine and map landscape types.

**Figure 2.2.4.1 Proposed Densities** outside of the Urban Edge (DEA&DP, 2005)

The maximum floor areas recommended for other buildings that may be found in resorts are as follows:

- Bed and breakfast 350m² (maximum 5 bedrooms per unit) establishments (/guesthouses)
- Farmstalls 100m²
- Businesses 150m² (shops)
  250m² (restaurants)

The following unit sizes are proposed;

| | Resort Zone without holiday housing consent [8] | Resort Zone outside urban edges | Resort Zone with holiday housing consent[9] within urban edges (but still within natural, relatively sensitive areas) |
|---|---|---|---|
| Maximum unit size floor space (m²)[10] | 120m² | 120m² | 175m² |
| Maximum number of storeys | single storey only | single storey only | single storey, and possible expansion of habitable space into loft |
| Building height | 6,5 m | 6,5 m | 6,5 m |
| Individual exclusive use area | N/a | 250m² | 300m² |

**Figure 2.2.4.2 Unit Sizes** (DEA&DP, 2005)

- **Environmental Opportunities and Constraints**

When considering the environmental opportunities and constraints the guidelines suggests that a "resort should not be permitted in a particular location, if its establishment will lead to damage or destruction of the environment. The concept of resort zone was, from the outset, based on the premise to give access to a greater number of people to areas of natural or cultural amenity value not otherwise available to them, without the potential destruction that may be associated with more formal development." (DEA&DP, 2005)

### 2.2.5 Guidelines for Golf Courses, Golf Estates, Polo Fields and Polo Estates in the Western Cape

The guidelines have been produced to help decision-makers when dealing with applications for golf courses, golf estates, polo fields, polo estates and other developments of similar scale and/or complexity and as a reference for formulating SDF's and IDP's. (DEA&DP, 2005)

The objectives of the guidelines are:

- To promote responsible development, taking into consideration the imperative for transformation;
- To protect, enhance and maintain the natural resources and unique biodiversity of the Western Cape;
- To support the implementation of sustainable development principles;
- To support and enhance the implementation of bioregional planning in the Province;
- To promote well functioning, integrated urban settlements, and to prevent urban sprawl;
- To inform decision-making with respect to golf courses, golf estates, polo fields and polo estates in all spheres of government, based on the principle of cooperative governance;
- To provide clarity into the application and assessment process, by clarifying requirements without creating expectations; and
- To improve the effectiveness of public participation. (DEA&DP, 2005)

The purpose of the location principles is to facilitate the appropriate siting or placement of development on the landscape.

- **Urban Areas**

The term "Urban Areas" refers to all land designated for urban development purposes within a demarcated Urban Edge. Developments that include golf courses, golf estates, polo could be more appropriate when:

- "in or immediately adjacent to the urban area, where it assists in defining an Urban Edge. Refer to the WCPSDF and provincial Urban Edge Guidelines;
- it forms part of the municipal open space system (to be read in conjunction with the following bullet), and
- where residential components are added to existing amenities in urban areas, as a form of general/overarching densification, on condition that the recreational and open space/green lung function of such amenities is not compromised and provided that:
    - the site does not fall within an area that has been identified by the relevant Municipality concerned for urban densification;
    - if the site is located within the open space system/network, access to public amenities and open spaces is not disrupted;
    - the site has not been designated as being of sufficient cultural significance by heritage authorities to warrant it a "no-go" area for development;
    - the site does not fall within an area that has been identified as being of conservation significance, within the urban context;
    - the site does not negatively affect the role, function, public enjoyment and status of open space systems/networks, designated sites of cultural significance and/or sites identified as being of conservation significance;
    - the development or part thereof will not be located within the 30m development restriction area measured from the bank of a river, stream, wetland or any other natural surface water feature or within the following 1:50 year or 1:100 year flood lines, whichever is the most restrictive:
    - the water demand for the development is in accordance with the municipality's water services plan and that there is no risk of stress being placed on the municipal water supply;
    - where water resources are required to supply the development, that these are not considered as being stressed by DWAF and other relevant authorities;
    - the area does not fall within the coastal zone as defined by relevant legislation, policies or plans, or within 30m of the edge of a cliff located on the coastline, or within 30m of the high water mark, or on primary dunes or on dune systems that are mobile (the most restrictive criteria will apply);
    - the development will not result in the removal of traditional access used by local communities;
    - the development will not result in existing public and/or traditional access to and along the coastline being disrupted (unless acceptable alternative access has been provided);
    - the development will not result in or contribute to visually obtrusive or ribbon development along the coastline or along cliffs and ridges." (DEA&DP, 2005)

- **Core Areas**

Core areas include officially proclaimed nature reserves, ecological corridors, critically endangered habitats and river corridors. No golf courses, golf estates, polo fields and polo estates should be located in core areas, as identified through the WCPSDF's bioregional planning categories.

- **Buffer Areas**

Buffer Areas include remaining natural habitat in endangered and vulnerable ecosystems, including remnants, natural habitat in less threatened ecosystems and extensive agricultural areas.

- **Intensive agricultural areas**

No golf courses, golf estates, polo fields and polo estates should be allowed in intensive agricultural areas.

Development that includes a golf course or polo field component could occur on the border between Buffer and Urban Areas provided it:

- Results in long term Biodiversity offsets and / or heritage goals;
- Result in securing the viability of a significant agricultural unit or contribute significantly to land reform objectives;
- Limits the number of units so that secondary developments (shops, service stations, etc) are not promoted;
- Does not entail any form of township development outside the Urban Edge;
- It not a significant heritage area;
- Does not contribute to urban sprawl and or leapfrogging;
- Is not in an area of medium or high value agricultural land;
- Is not in an area designated for emerging farmers;
- Does not use water resources (surface and ground) that are considered stressed by DWAF and others authorities does not pollute the natural water resource by fertilizer or treated effluent;
- Does negatively affect the open space network;
- Is not in coastal zone, within 30m of the edge of a cliff located on the coastline or within 30m of high water mark, or on the primary dunes or dune systems that are mobile;
- Does not impact on habitats / ecosystems that are defined as critically endangered;
- Does not disrupt ecological corridors;
- Does not fall within 30m of bank of river or 1:100 year flood line;
- Does not negatively affect river, natural spring or the catchments of a dam;
- Does derive water from rivers determined as being pristine / near pristine or stressed by DWAF and authorities;
- Does not remove traditional access, commonage etc.;
- Does not result in the inappropriate alteration of the landform (e.g. cut and fill); and
- Does not result in / contribute to visually obtrusive / ribbon development.

The following aspects must be considered in the formulation of the application and development model:

- Alternatives
- Spatial planning – compliance
- Land use – undertake a land use impact assessment
- Cultural heritage and VIA
- Biodiversity – how al biodiversity plans have been consulted
- Water resources
- Infrastructure and services
- Social impacts
- Employment and skills development
- Economic impact
- Management of planning, design, implementation and operational activities
- Social costs
- Urban Edge principles

The following aspects must be considered in the design of the proposed development:

- Visual
- Socio-economic
- Biodiversity
- Stormwater and water use
- Green / sustainable buildings

### 2.2.6 Rural Land Use Planning and Management Guidelines, May 2009

These guidelines were prepared with the purpose of complementing the Guidelines for Rural Resorts, Golf Estates, Polo Fields and Polo Estates (DEA&DP, 2009).

The objectives of the guidelines are:

- To promote sustainable development in appropriate rural locations while ensuring that the poor share in the growth of the rural economy;
- To safeguard the functionality of life supporting ecosystem services;
- To maintain the integrity, authenticity and accessibility of farming, ecological, cultural and scenic rural landscapes and natural resources;
- To assist municipalities with the management of rural areas;
- To provide clarity on the type of development that is appropriate beyond the urban edge, as well as the scale and form of such development (DEA&DP, 2009)

The purpose of this document is to serve as a logical planning and management guideline for all types of rural land uses.

The Rural Settlement patterns in the Western Cape include:

- The farm homestead and associated outbuildings, historically enclosing a farmyard or werf;
- Workers accommodation (on-farm) i.e. labourers cottages located away from the werf;
- Villages and off-farm hamlets located along main movement routes;
- Rural residential sprawl usually located along the outskirts of urban centres;
- The change of working farms to weekend leisure destinations.

***Guidelines on Managing Rural Land Use Change***

- Decisions in terms of Rural Land Use applications are to be based on the following sustainable land use principles:
  - social inclusion;
  - effective protection and enhancement of the environment;
  - prudent use of natural resources;
  - the maintenance of high and stable levels of economic growth;
- Good quality and carefully sited development should be encouraged in existing settlements;
- Accessibility should be a key consideration in development decisions;
- New development in the countryside should be strictly controlled in terms of scale, height, colour, roof profile etc.;
- Prioritise the re-use of previously developed sites in preference to Greenfield sites;
- All development should be well developed and inclusive, in keeping and in scale with its surroundings, sensitive to the character of the landscape.

***Rural Land Use Management Guidelines: Holiday Accommodation***

- Avoid fragmentation of the cadastral unit, instead use leasehold for 3rd party ownership for holiday accommodation;
- Land for holiday accommodation should be non-alienable (i.e. rental, time-share, share block, fractional ownership);
- Resort development outside Urban Edge to not include individually alienable units;
- Precinct plans are to be provided and address the impact on agricultural activities and/or conservation and the impact of agricultural activities on the proposal;
- Development proposals to be considered on marginal farming land and land of low environmental sensitivity and significance;
- Municipalities should solicit comments of surrounding properties and consider impact on rural landscape;
- Municipalities to ensure approved precinct development plans are adhered to and enforce the building regulations;
- EIA regulations and flood line restrictions are to be enforced.

***Rural Land Use Management Guidelines: "On-Farm" Settlement of Farm Workers***

- Farms are to be subdivided in order to balance the interests of the farm workers and its owners;
- Subdivided portions are required to be affordable and sustainable to their beneficiaries;
- All dwellings (proposed, new and existing) are to comply with building and engineering standards;
- If right of way servitudes are required, they are to be entrenched in the title deed of the parent farm.

***Rural Land Use Management Guidelines: Tourist and Recreational Facilities***

- Development applications are to include:
  - tenure arrangements, with leasehold used for 3rd party operators or owners of facilities;
  - buildings, landscaping and infrastructure provision;
  - access and parking arrangements;
  - nature and position of all proposed signage;
  - Business Plan specifying BEE arrangements;
  - Environmental, agricultural and visual impact assessments;
  - Environmental Management Plan;
  - Disaster Management Plan detailing search and rescues procedures.
- Consent use applications to be advertised for comment by interested and affected parties and adjoining property owner's;
- Applicable EIA regulations to be enforced by the local authorities and compliance with the approved EMP;
- Local authority to apply building regulations and ensure conditions of approval is adhered to.

**Implications for Cape Agulhas**

- These guidelines apply to the management of development proposals beyond the Urban Edge of rural settlements ranging from applications for large golf and polo estates to farm subdivisions.
- The Municipality's settlements enjoy a close and sensitive relationship with their surrounding rural or coastal environments and where possible should avoid extending into these.
- In the short and medium term appropriate vacant, underused or underdeveloped opportunities should be exploited first before the opportunities outside of the current urban edges are explored.

### 2.2.7 Settlement Restructuring: An Explanatory Manual (March, 2009)

The Settlement Restructuring Manual was approved as a Structure Plan in terms of Section 4(6) of the Land Use Planning Ordinance (Ordinance 15 of 1985) on the 24th of June 2009. The purpose of this document is to guide government, labour, business and civil society order to create human settlements that are dignified and sustainable.

The document consists of the following:

- Land use management tools for 1) auditing vacant and underutilised land, 2) Strategies for densification and 3) Toolkits for applying tools and strategies;
- Strategies for urban integration;
- Toolkits for applying tools and strategies.

***Vacant and underutilised land audit:***

- The purpose of a vacant and underutilised land audit it to provide municipalities with a record of all the usable land parcels located within the urban edge. By having access to this information, a municipality is able to understand its future land use and urban restructuring opportunities;
- Land is considered vacant and underutilised if:
  - it has no identifiable land use;
  - there is no building or improvements;
  - its previous productive usage has ceased;
  - it would benefit from improvement and development.
- The following exclusion criteria is applicable to land audits:
  - high potential agricultural land and productive agricultural land;
  - land with a high biodiversity and conservation value;
  - road reserves;
  - protected nature areas;
  - 30m river corridors and 1:50 year floodplains;
  - land high in scenic value or that is visually sensitive;
  - buffer areas from hazardous services.

**Densification Strategy:**

- The purpose of the densification strategy is contain urban sprawl and fragmentation in order to achieve efficient, integrated and sustainable human settlements;
- Densification should be encouraged in the following manner:
  - within areas with a high economic potential ( provincial, district and local scale);
  - along mobility routes in order to support public transport routes;
  - along the periphery of open spaces in order to increase its surveillance;
  - within areas that have been identified as public-sector investment areas;
  - in selected areas of high private sector investment;
- The following should be mapped per settlement for which an urban edge is to be demarcated:
  - agricultural land and agricultural processing around urban areas;
  - smallholdings, rural land and small farms;
  - urban and regional open spaces and natural areas;
  - rivers and floodplains;
  - coastal zones (i.e. sea level rise);
  - landscapes that are considered to be high in value.

***Strategies for Urban Integration:***

- Integration is the mix of various land uses and/or income groups in specific areas which contributes to creating a whole functioning urban area;
- Physical integration includes well designed dense development which are linked to pedestrian friendly streets and a horizontal and vertical mix of uses (which includes residential, non-polluting industrial services, commercial and institutional uses);
- Integration is encouraged in 1) spaces where social integration can occur, 2) along public transport routes in order to improve access to opportunities, services and facilities and 3) where concentrations of major urban functions occur.

**Implications for Cape Agulhas**

- CAM's settlements, with the exception of Struisbaai North and Suiderstrand, do not suffer from the typical, widely dispersed pattern of so many small SA settlements.
- Care must be taken to ensure that land identified for new development integrates and compacts the municipality's settlements rather than dispenses them.
- Struisbaai north to Suiderstrand are a particular challenge in this regard and where possible densification and a mix of uses should be promoted along Main road.

### 2.2.8 The Provincial Land Transport Framework, Provincial Government: Western Cape Department of Transport and Public Works, April 2011

The Provincial Land Transport Framework (PLTF) sets out the longer term vision (20-30 years) for transport for the Western Cape Province in line with the directives of the WC- PSDF. The long term vision for transport is intended to support:

- A fully Integrated Rapid Public Transport Network (IRPTN) in higher order urban regions through access to opportunity, equity, sustainability, safety and multi-modal interchange;
- A fully integrated rural Integrated Rural Transport Network (IRTN);
- A safe public transport system;
- A well maintained road network;
- A sustainable, efficient high speed rail long distance public and freight transport network;
- An efficient international airport that links the rest of the world to the choice gateway of the African Continent;
- International – standard posts and logistics system;
- A transport system that is resilient to peak oil; and
- A transport system that is fully integrated with land us.

The PLTF goals and objectives are:

1. An efficient, accessible and integrated multi-modal public transport system managed by capacitated and equipped municipal authorities
   - A 13% modal shift from private to public transport into Cape Town's CBD by 2014.
   - Increase the number of commuter rail train sets in operation from 81 train sets to 117 by 2016.
   - Develop a framework for the development of safe and accessible IPTNs in district by 2014
   - Establish land-use incentives and NMT improvements around 10 underdeveloped public transport nodes of provincial significance by 2014 (Provincial Key Projects).
   - Fully implement a universally accessible and multimodal IRT Phase 1a by 2014.
   - Increase user satisfaction of public transport facilities by 25% by 2014.
   - Organise courses and seminars dealing with infrastructure management, transport planning and land-use planning for district municipalities by 2014.
   - Bring commuter rail network from D+ to a C maintenance level on A corridors by 2016.
   - Bring minibus taxi recapitalization rate on national level by 2016.
   - Influencing parties in order to achieve a shift in contestable freight haulage from road to rail freight by 10% by 2014.

2. NMT as a pivotal part of all forms of transport planning in urban and rural areas
   - Organise courses and seminars dealing with infrastructure management, transport planning and land-use planning for district municipalities by 2014.
   - Dedicated NMT Expanded Public Works Program projects by 2014.
   - Every provincial road project in the province must include a NMT component.
   - NMT Plans must be developed and implemented for each municipality Province, as a part of the mobility strategy and IPTN roll-out by 2014.
   - Dedicated cycle lanes in the Western Cape must be doubled by 2014.

3. A well maintained and preserved transport system
   - Reduce the road transport infrastructure backlog by 16% by 2014.
   - Bring commuter rail network from D+ to a C maintenance level on A corridors by 2016.
   - Introduce economic decisions support tools to facilitate decision making with regard to road investment by 2014.

4. A sustainable transport system
   - A 13% modal shift from private to public transport into Cape Town's CBD by 2014.
   - Shift in contestable freight haulage from road to rail by 10% by 2014.

5. A safe transport system
   - Reduction of the number of fatalities on the Western Cape roads by 50% by 2014.
   - The provincial and the Cape metro incident management plan will be expanded to include lower roads by 2014.
   - Implementation of an integrated transport safety management system by 2014.

6. A transport system that supports the province as a leading tourist destination
   - Introduce economic decision support tools to facilitate decision making with regard to road investment by 2014.

The PLTF notes that it is critical to resolve the conflict with land use planning and proposes the following:

- Densify the land use system along specific public transport corridors;
- Develop and implement incentive measures in al municipalities;
- Establish measure to disincentive outward sprawling low density settlements;
- Develop a holistic funding model for immediate and long term costs.

The PLTF notes that the ideal future scenario for the province is to permit strategic densification along the key transport corridors to pursue efficient, integrated public transport services. This will require investing in high growth and high need settlements.

Note: Bredasdorp is a high growth (development) low need settlement and Napier is a low growth, high need settlement. The towns in the Municipality would therefore not comply with this criterion.

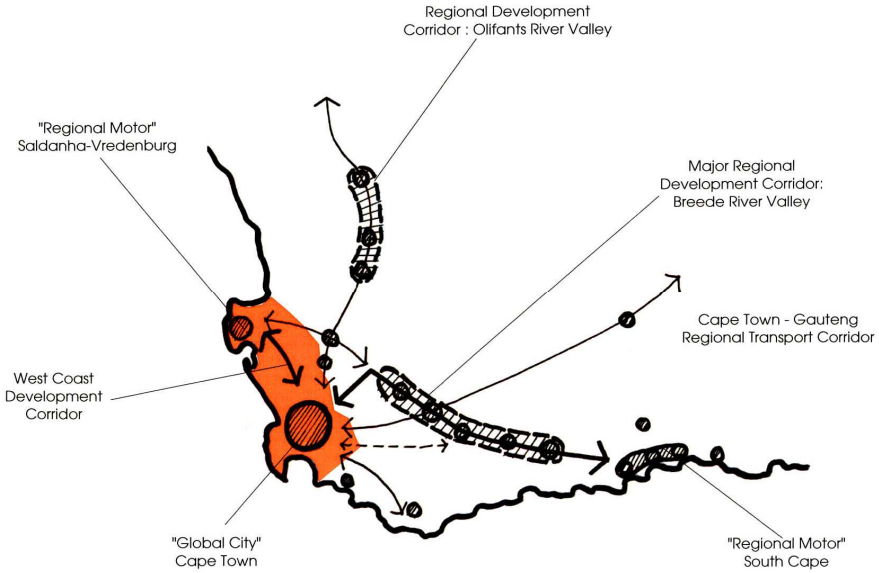



**Figure 2.2.8.1 Patterns of Economic Activity** (source: PSDF, 2006)

**Implications for Cape Agulhas**

- The CAM settlements are not targeted directly in the PLTF as they do not contain public transport modes of provincial significance. However, cognisance should be taken of the PLTF's general objectives by:
  - Firstly, minimising the need for public and private motor vehicle transport limiting the distance between residential areas and places of work, shopping and recreation to walking distance where possible.
  - Secondly, promoting non-motorised transport facilities, cycle lanes and treed sidewalks, along the major routes of a settlement.
  - Thirdly, densifying the land use system along specific public transport corridors, for instance, between Struisbaai North, L'Agulhas and Suiderstrand along Main Road is a distance of 13kms.

## 2.3 DISTRICT POLICIES

### 2.3.1 Overberg Spatial Development Framework (March 2004)

The Spatial Development Framework (SDF) for the Overberg is an important part of the Integrated Development Plan (IDP). The key categories addressed in the SDF include natural environment, human-made environment, economic sectors, community development and district management.

The SDF aims to achieve the following:

- Indicate the spatial implications of the IDP;
- Propose development strategies for the promotion of sustainable development and thus promoting the well-being of the people in the area;
- Integrate the strategies of the IDP with the policies put forward in the Coastal Zone Policy (CZP) for the Western Cape (PGWC 2001); and,
- Create options for the implementation of the UNESCO Man and the Biosphere (MAB) Programme to promote sustainable development.

The Overberg District Municipality (ODM) believes that the proposals put forward by the SDF will enhance and promote sustainable development, but the success of the proposals will depend on the following factors:

- I&AP involvement and empowerment (IDP's, SDF's and SDP's should express the needs and concerns of communities. What form of spaces they would like and what type of future they would want);
- Collaboration and co-operation and between Local Municipalities, state department, Non Governmental Organisations (NGOs) and communities;
- Continuing research and monitoring of the SDF.

The SDF notes that the agricultural sector has the potential to solve many of the social problems of the study area and to support land restitution, redistribution and tenure reform programme. Therefore, programmes to provide land to emergent or "small" farmers and to support new settlements, must be a high priority.

The agricultural vision is to "develop agriculture as an optimally efficient and economically viable market-directed sector representing a socio-economic 'pivot' of the ODM."

The objectives include:

- Ensure effective general management strategies for agriculture in the ODM;
- Undertake appropriate detailed farm planning as a standard practice on farms;
- Provide sustainable opportunities for small-farmer or emergent farmers;
- Promote development of sustainable agricultural enterprises in the ODM'
- Diversify agricultural enterprises to (a) reduce financial risk, (b) enhance economic feasibility and stability and (c) ensure sustainable utilization of available resources.
- Entrench the status of the natural environment and its resources as the determining factor in sustainable agriculture;

The SDF proposes Spatial Planning Category (SPC) C where development is to be considered on agricultural land. This SPC allows for intensive or extensive agricultural development.

**Implications for the SDF**

The SDF identifies the majority of the former DMA area and the wetlands areas as wilderness areas. The Air Force Base is identified as a rehabilitation area.

The northern portion of the Cape Agulhas Municipality has been allocated for Intensive and Extensive Agriculture.

The SDF proposes the upgrading of the following roads in the Cape Agulhas study area:

- Klipdale – Napier;
- Pearly Beach – L'Agulhas;
- Bredasdorp – Elim- Buffelsjagstrand
- Bredasdorp via Wydgeleë and Potberg to the pont at Malgas
- Entrance roads to Klipdale and Protem
- L'Agulhas–Struisbaai
- Between Gansbaai and the southernmost tip of Africa via Baardskeerdersbos and Elim.

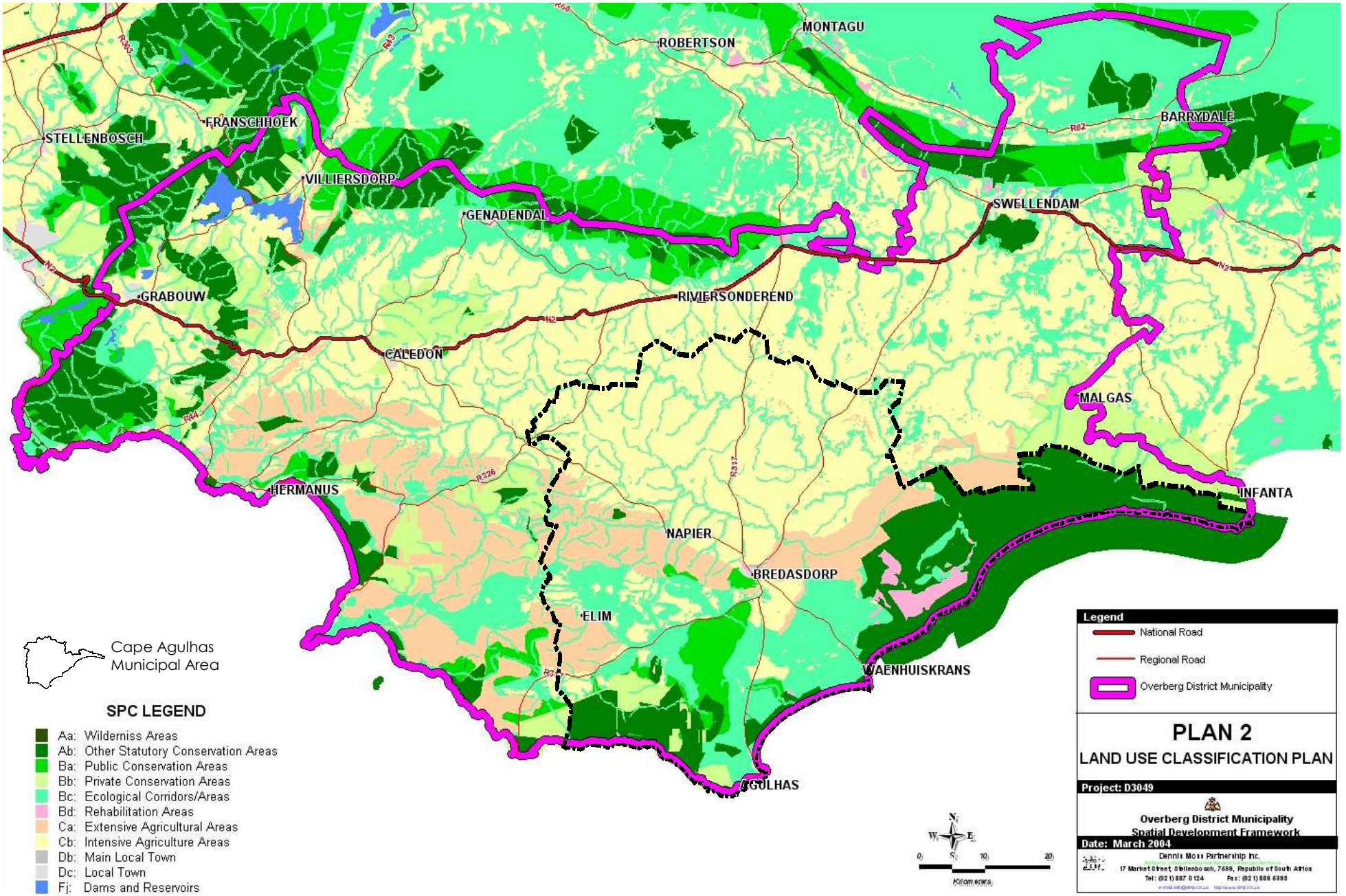



**Figure 2.3.1.1 Overberg SDF** (source: Dennis Moss Partnership, 2004)

### 2.3.2 Overberg District Municipality Integrated Development Plan (2007/2208, 2008/2009, 2009/2010)

The vision for the Overberg district is:
- The balanced usage of resources to benefit people to promote the economy and development;
- To preserve the regions rural character; and,
- To prevent and combat crime effectively.

The development strategy for the Overberg builds on three fundamental aspects: Human development, economic development and infrastructure development.

The following strategies are to support the human development aspects:
- Human Development strategy and Early childhood Development Strategy;
- Establish a healthy community (focus on community care);
- Support vulnerable groups in the community;
- Provide environmental health services;
- Youth development strategy and human rights strategy;
- Cultural heritage strategy; and,
- Sports strategy.

The Economic Development strategy aims to:
- Increase economic local output;
- Reduce unemployment;
- Improve BEE community ownership, community ownership and affirmative procurement; and,
- Include woman, youth and the disabled in economic development initiatives.

The infrastructure development to be effective, the following objectives are to be met:
- Revise water services development plans;
- Assist with planning of housing delivery and human settlements;
- Maintenance of the road network;
- Upgrade the airport at Bredasdorp, harbours and boat slipways in the region;
- Promote public transport; and,
- Provide an integrated Waste Management Plan and promote recycling.

**Implications for the SDF**
- The IDP vision and strategies all generally apply to the Municipality.
- Specific mention is made of the airport near Bredasdorp and the need to upgrade harbours and slipways which occur at Struisbaai and Arniston within Cape Agulhas Municipality.

### 2.3.3 Overberg District Municipality: Integrated Transport Plan (June 2010)

The ITP for the Overberg District was prepared in 2010. The vision with respect to transport for the region is "to provide an equitable, environmentally and tourist friendly transport system for all the Overberg people".

This policy document proposed the following goals and targets in order to achieve a model state of transport in the District:

- The provision of public transport options for rural communities by:
  - Introducing regular and reliable public transport service at least once or twice a day;
  - Provide an alternative funding source for routes that are uneconomical;
  - Provide safe transport for learners;
  - Provide public transport on days when senior citizens receive their respective pensions;
  - Have emergency transport on call;
  - The provision of safe facilities for the users of public transport.

- The provision of non motorised transport:
  - sidewalks and footpaths to be provided on routes that are highly used by pedestrians;
  - pedestrians are to be provided with safe crossings and sidewalks;
  - non-motorised tourism can be encouraged by providing safe bicycle paths in areas with potential;
  - encourage NMT projects, for e.g. the Bicycle Empowerment Network.

- Improve and integrate transport planning:
  - recommendations from various specific transport studies are to be included in IDPs;
  - all structure plans or SDFs are to include a chapter on transport;
  - a transport planner is to be employed for the Overberg District;
  - physically disabled people are to be catered for where possible.

- Develop transport as an economic growth tool:
  - the creation of job opportunities by developing the transport system;
  - the promotion of BEE and SMME development in the planning, maintenance and further upgrading of the transport system
  - use the skills acquired through the Gansbaai-Elim-Bedasdorp Road project in other projects;
  - emphasise the importance of transport planning in economic development; and,
  - ensure that transport facilities are reasonably maintained.

The District ITP notes that even though its rail network is very limited - opportunities to improve freight and passenger movement to and from the area exists.

The majority of travel taking place in the District is by means of road and the following issues were noted in this regard:

- increase road maintenance in order to minimise backlogs;
- acquire funding in order to improve the safety and capacity of specific intersections;
- provide additional parking capacity in towns and major centres for residents and tourists;
- minimise the number of overloaded agricultural trucks using the road during the season.

According to the ITP, further investigation and studies are required in order to identify the specific needs in respect of public transport within the district.

**Implications for the SDF**

The following projects described in the ITP were identified by the Municipality:

- the provision of road signs and road markings;
- the upgrading of Hertzog, Joseph and Brand Streets in Napier and Bredasdorp respectively;
- parking provision in the CBD;
- the provision of wheelchair ramps at all the intersections in Long Street, Bredasdorp;
- all road signs are to have a minimum clearance of 2.1m; and,
- the reconstruction of Long Street, Bredasdorp.

The ITP proposed the following budget for the Cape Agulhas Municipality:

| # | Project | Available budget | | | | |
|---|---|---|---|---|---|---|
| | | 09/10 | 10/11 | 11/12 | 12/13 | 13/14 |
| 1. | Maintenance and Rehabilitation of roads | 10,976 | 18,692 | 10,205 | 5,410 | 5,390 |
| 2. | Improvement of stormwater system | 4,500 | 5,147 | 5,340 | 3,090 | 2,970 |
| | **Total** | **15,476** | **23,839** | **15,545** | **8,500** | **8,360** |

**Table 2.3.3.1 Project implementation budget and program (Cape Agulhas)** (Source: ITP, 2010)

### 2.3.4 Critical Biodiversity Areas of the Overberg District Municipality: Conservation Planning Report, 2010

The Critical Biodiversity Areas of the Overberg District Municipality report was prepared in April 2010. Figure 2.3.4.1 indicates the Critical Biodiversity Areas for the Overberg District. The Critical Biodiversity Areas identified for the Overberg District include Protected Areas, Critical Biodiversity Areas and Ecological Support Areas.

The report states that CBAs aim to guide sustainable development by providing a synthesis of biodiversity information. The biodiversity assessment was designed in a manner to identify an efficient set of Critical Biodiversity Areas and Ecological Support Areas that meet the targets for conserving the underlying biodiversity features in as small areas as possible and in areas with least conflict with other activities.

With respect to CBAs, the report noted the following:

- The CBA map is intended to act as the biodiversity's sector's input into multi sectoral plans and any assessments;
- The CBA map is aligned with current national standards for bioregional plans;
- Land use guidelines were developed for each CBA category and correspond to land use panning categories used in SDFs.

The CBA map, Figure 2.3.4.4 indicates all areas of land and aquatic features which are required o be protected in their natural state if biodiversity is to continue functioning. CBAs include:

- areas that need to be protected in order to meet biodiversity thresholds;
- areas required to ensure the continued existence and functioning of species and ecosystem, including the delivery of ecosystem services; and,
- important locations for biodiversity features or rare species.

The criteria that define the CBA categories are shown in Figure 2.3.4.1.

| CBA MAP CATEGORY | CRITERIA DEFINING THE CATEGORY |
|---|---|
| Protected Areas | **Formal Protected Areas**<br>a) Terrestrial<br>▪ Nature Reserves and National Parks (protected by the National Environment Management: Protected Areas Act 57 of 2003).<br>▪ Forest Nature Reserves (declared in terms of the National Forest Act 84 of 1998).<br>▪ Ramsar Sites (protected by the Ramsar Convention).<br>▪ Mountain Catchment Areas (declared in terms of the Mountain Catchment Area Act 63 of 1970).<br>▪ World Heritage Sites (declared in terms of the World Heritage Convention Act 49 of 1999).<br>b) Marine<br>• Marine Protected Areas (protected by the National Environment Management: Protected Areas Act (57 of 2003) or Marine Living Resources Act (107 of 1998). |
| Critical Biodiversity Areas | **Any terrestrial, freshwater aquatic or marine area required to meet biodiversity pattern and/or process thresholds**<br>a) Any area that is required for meeting biodiversity pattern thresholds, namely:<br>▪ Remaining areas of Critically Endangered habitat types.<br>▪ Special habitats (areas required to protect special species and habitats).<br>▪ Listed Threatened Ecosystems in terms of the National Biodiversity Act (10 of 2004).<br>▪ Remaining areas protected by the National Forest Act (84 of 1998).<br>b) Any area that is required for meeting ecological process thresholds including:<br>▪ Ecological or landscape corridors (comprising upland-lowland, river, coastal and sand-movement corridors)<br>c) Hydrological process areas (estuaries, wetlands, important catchment areas).<br>d) All 'best design' sites (largest, most intact, least disturbed, connected and/or adjacent) in terms of meeting pattern and process thresholds. 'Best design' refers to an identified network of natural sites that meet pattern and process thresholds in all vegetation types in a spatially efficient and ecologically robust way, and aim to avoid conflict with other activities (e.g. economic activity) where it is possible to achieve biodiversity thresholds elsewhere. |
| Ecological Support Areas | **Supporting zone required to prevent degradation of Critical Biodiversity Areas and Protected Areas**.<br>a) Areas required to prevent degradation of Critical Biodiversity Areas and formal Protected Areas.<br>b) Remaining catchment and other process areas (river, fire, etc) that are required to prevent degradation of Critical Biodiversity Areas and formal Protected Areas.<br>c) Areas that are already transformed or degraded, but which are currently or potentially still important for supporting ecological processes e.g. transformed or alien plant infested areas that have transformed or degraded the natural buffer area of a wetland or river. **These areas are a focus for rehabilitation, and the intensification of land-use should be avoided.** |
| Other Natural Areas | Natural areas not included in the above categories. |
| No Natural Areas Remaining | These areas include cultivated areas (intensive agriculture), afforested areas (plantation forestry), farmland (areas that have been farmed in the past), mined areas (currently or in the past), urban areas, infrastructure, dams and areas under coastal development. |
| Source Reference: Holness *et al.*, 2010 | |

**Figure 2.3.4.1** **Criteria defining the CBA categories** (Source: **Critical Biodiversity Areas of the Overberg District Municipality: Conservation Planning Report, 2010**)

Ecological Support Areas (ESAs) are supporting areas required to prevent the degradation of CBAs and Protected Areas. ESAs may be ecological process areas that connect and sustains CBAs for a terrestrial feature.

Figure 2.3.4.2 below indicates the Desired Management Objective for each mapped category. Desired Management Objectives includes both the biodiversity pattern and the ecological processes.

| CBA MAP CATEGORY→ | Formal Protected Areas | Critical Biodiversity Areas | Ecological Support Areas | Other Natural Areas | No Natural Areas Remaining |
|---|---|---|---|---|---|
| DESIRED MANAGEMENT OBJECTIVE→ | Maintain natural land. Rehabilitate degraded to natural or near natural and manage for no further degradation. | | Maintain ecological processes | Sustainable Management within general rural land-use principles | Sustainable Management within general rural land-use principles. **Favoured areas for development.** |

**Figure 2.3.4.2** **Desired Management Objective per category (**Source: **Critical Biodiversity Areas of the Overberg District Municipality: Conservation Planning Report, 2010**)

The report states that only land use activities that are compatible with maintaining the Desired Management Objectives are to be encouraged. Figure 2.3.4.3 provides the recommended Biodiversity compatible land use guidelines.

Biodiversity priority areas, such as Protected Areas, CBAs and ESAs, the land use guidelines were informed based on the Desired Management Objectives noted above as well as the impact of land use activities on biodiversity.

**Implications for the SDF**

- The southern portion of CAM contains an important mosaic of CBAs including:
  - Bredasdorpberg – CBA;
  - Agulhas Plain – mosaic of Protected Areas (National Park) CBAs and Ecological Support Areas (ESAs);
  - OTB (Air Force Base) large areas of contiguous CBAs and ESAs; and,
  - De Hoop Nature Reserve Protected Area with some supporting ESAs.
- The northern portion, the Ruens agricultural area, contains some Renosterveld remnants identified as CBA's.

**KEY: Biodiversity sector land-use recommendations**

- Yes = Encouraged;
- No = Discouraged;
- Restricted = Land-use possible under strict controls in order to avoid impacts on biodiversity.

| CBA MAP CATEGORY | | Critical Biodiversity Areas | Ecological Support Areas | Other Natural Areas | No Natural Areas Remaining |
|---|---|---|---|---|---|
| DESIRED MANAGEMENT OBJECTIVE: → | | Maintain natural land. Rehabilitate degraded to natural or near natural and manage for no further degradation. | Maintain ecological processes | Sustainable Management within general rural land-use principles | Sustainable Management within general rural land-use principles. **Favoured areas for development.** |
| PSDF SPATIAL PLANNING CATEGORY: → | | Core 1 | Core 2 | Buffer 1 or 2 at the discretion of Town and Regional Planners | Intensive Agriculture and Settlement |
| LAND-USE ACTIVITY ↓ | | | | | |
| 1) CONSERVATION | | Yes | Yes | REFER TO THE PROVINCIAL RURAL LAND-USE PLANNING AND MANAGEMENT GUIDELINES[3] FOR GUIDANCE IN IDENTIFYING APPROPRIATE LAND-USE ACTIVITIES<br><br>ALWAYS MANAGE FOR SUSTAINABLE DEVELOPMENT WHEN CONSIDERING LAND and WATER RESOURCE USE APPLICATIONS IN NATURAL AREAS | |
| 2a) AGRICULTURE -HIGH IMPACT : Intensive Agriculture *(includes forestry plantation and space extensive agricultural enterprises)* | | No | No | | |
| 2b) AGRICULTURE - LOW IMPACT: Extensive Agriculture | | Restricted | Yes | | |
| 3) HOLIDAY ACCOMMODATION | | Restricted | Restricted | | |
| 4a) RURAL HOUSING: Low Density Rural Housing *(Consolidation of rural erven for conservation)* | | Restricted | Restricted | | |
| 4b) RURAL HOUSING: On-Farm Workers Settlement | | No | Restricted | | |
| 5a)TOURIST and RECREATIONAL FACILITIES - LOW IMPACT: Lecture rooms, restrooms, restaurants, gift shops and outdoor recreation | | Restricted | Restricted | | |
| 5b) TOURIST and RECREATIONAL FACILITIES - HIGH IMPACT: Golf , polo, and housing eco-estates | | No | No | | |
| 6a) RURAL BUSINESS: Place Bound | | Restricted | Restricted | | |
| 6b) RURAL BUSINESS: Non Place Bound | | No | No | | |
| 7) RURAL INDUSTRY | | No | No | | |
| 8) SMALL HOLDINGS | | No | No | | |
| 9) COMMUNITY FACILITIES and INSTITUTIONS | | No | No | | |
| 10) INFRASTRUCTURE INSTALLATIONS | | Restricted | Restricted | | |
| 11a) SETTLEMENT: Existing Settlements (Urban Expansion) | | No | No | | |
| 11b) SETTLEMENT: New Settlements | | No | No | | |

The purpose of these guidelines is to encourage development which avoids or has minimal biodiversity impacts, especially in Critical Biodiversity Areas and Ecological Support Areas. In general, land-uses that result in irreversible loss of natural habitat (such as cultivation, afforestation, urban development & mining) have the highest impact on biodiversity; and are considered **biodiversity-incompatible** land-use activities. Land-uses that allow for natural habitat to remain intact (such as appropriately managed grazing by either livestock or game or sustainable harvesting of natural products from the wild), have the lowest impact on biodiversity; and are therefore considered **biodiversity-compatible** land-use activities.

**Figure 2.3.4.3** **Biodiversity compatible land use guidelines matrix** (Source: **Critical Biodiversity Areas of the Overberg District Municipality: Conservation Planning Report, 2010**)

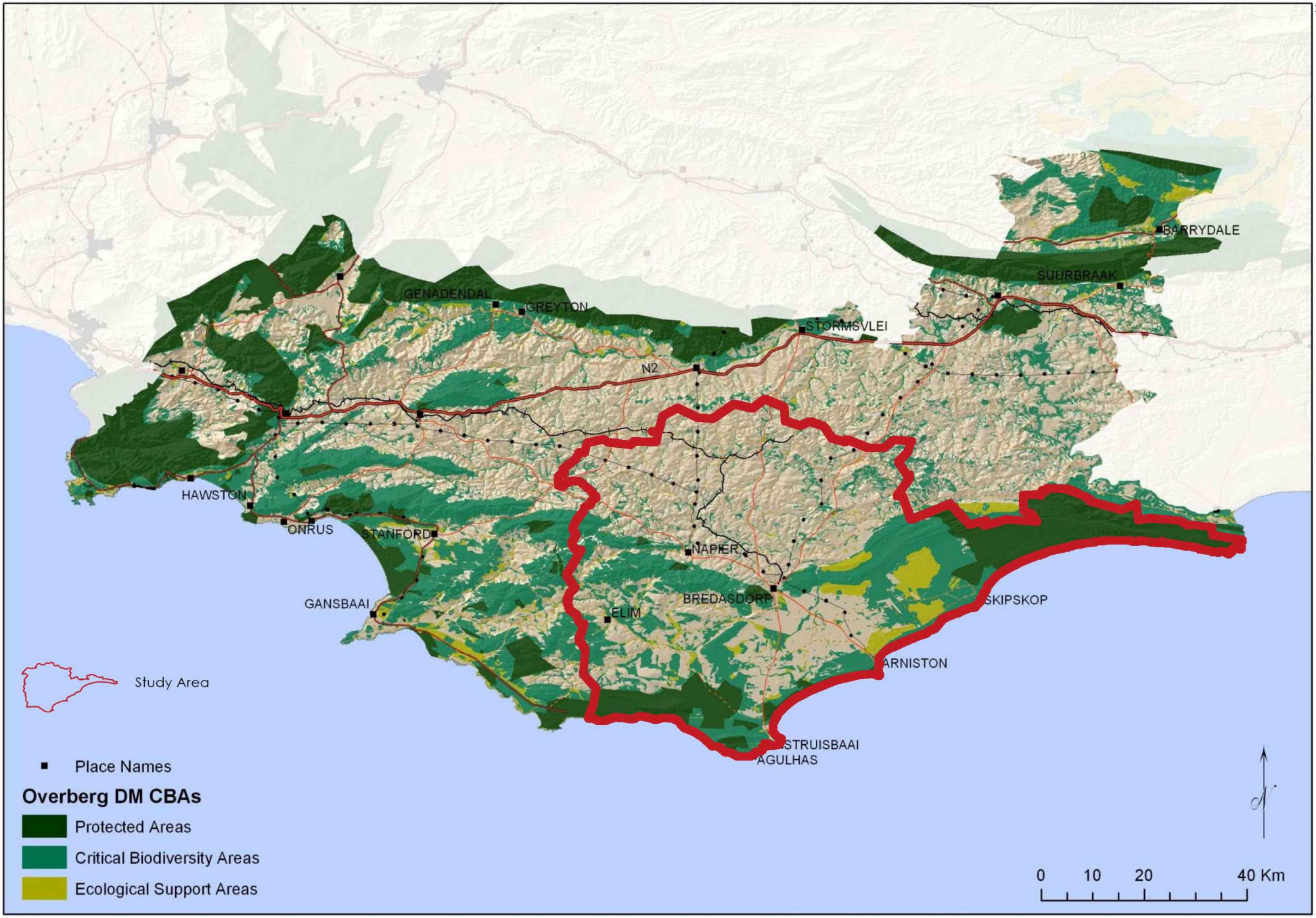



**Figure 2.3.4.4** **Critical Biodiversity Areas in the Overberg DM** (Source: **Critical Biodiversity Areas of the Overberg District Municipality: Conservation Planning Report, 2010**)

### 2.3.5 A fine scale Conservation Plan for Cape Lowlands Renosterveld, 2003

The Fine Scale Conservation Plan for Cape Lowlands Renosterveld report was prepared in 2003. It is a project that took place from July 2000 to October 2003 and was the first in a series of projects forming part of the Cape Action Plan for the Environment (C.A.P.E).

Together with the Agulhas Plain conservation plan, it was also one of the first projects to tackle fine-scale conservation planning in priority areas identified by the broad-scale C.A.P.E. conservation plan. Its focus area comprised the following four renosterveld broad habitat units (BHUs):

- Overberg Coastal Renosterveld;
- Swartland Coastal Renosterveld;
- Boland Coastal Renosterveld; and,
- Elgin Renosterveld-Fynbos Mosaic.

The conservation assessment consisted of three broad phases as shown below:

- Phase 1: Data collection and analysis
  a. Defining the planning domain
  b. Assessing the extent of remaining natural vegetation
  c. Mapping biodiversity patterns in the landscape (including vegetation types and species distributions)
  d. Representing ecological and evolutionary processes
  e. Assessing future land-use pressures
- Phase 2: Evaluation and integration of the data
  f. Defining selection units
  g. Creating a biodiversity summary layer
- Phase 3: Identifying spatial priorities and designing products to guide conservation action
  h. Designing a twenty-year conservation vision
  i. Developing a five-year spatial action plan

The five year (short term) action plan for renosterveld conservation for the Overberg Region is indicated in Figure 2.3.5.2.

The following factors were considered for short term conservation action:

- Biodiversity Criteria inputs:
  - biodiversity summary thinking;
  - landscape gradients (e.g. coast and interior);
  - special features or habitats.
- Opportunities and Constraints:
  - landowner willingness to conserve;
  - threats to biodiversity;
  - economic opportunities;
  - aesthetic and cultural features;
  - proximity to existing protected areas;
  - other biodiversity friendly initiatives.

**The Renosterveld Lowlands**

Renosterveld, along with fynbos, is one of the main vegetation types of the Cape Floristic Region. While fynbos grows on sandy nutrient-poor soils, renosterveld grows on richer, more fertile soils. Renosterveld is special because of its phenomenal richness in bulb species and other geophytes (e.g. belonging to the Iridaceae, Amaryllidaceae, Hyacinthaceae plant families) – noteworthy even in international terms. Many of these species are rare or endemic, meaning that they are restricted to renosterveld alone. They flower mostly in spring and are known to persist in even very small pieces of remnant natural habitat.

The renosterveld broad habitat units listed above cover an area of around 1.25 million hectares of finegrained and moderately fertile clay, granite or silcrete-derived soils. Renosterveld is one of the most threatened habitats in the Cape Floristic Region – only 5% of the natural vegetation remains in the Boland/Swartland and in Elgin and around 12% in the Overberg. The reason for these exceptionally high levels of loss of natural habitat is the long history of agricultural activity in the area, which is well-known for its striking green wintertime wheatfields and sought-after produce – fruit, olives and wine. Most of the remaining natural habitat exists as small remnants in the highly fragmented landscape. Of the roughly 18 000 remaining patches, more than half are smaller than a hectare.

**Figure 2.3.5.1** **Background to the Renosterveld lowlands** (Source: A fine scale conservation plan for Cape Lowlands Renosterveld, 2003)

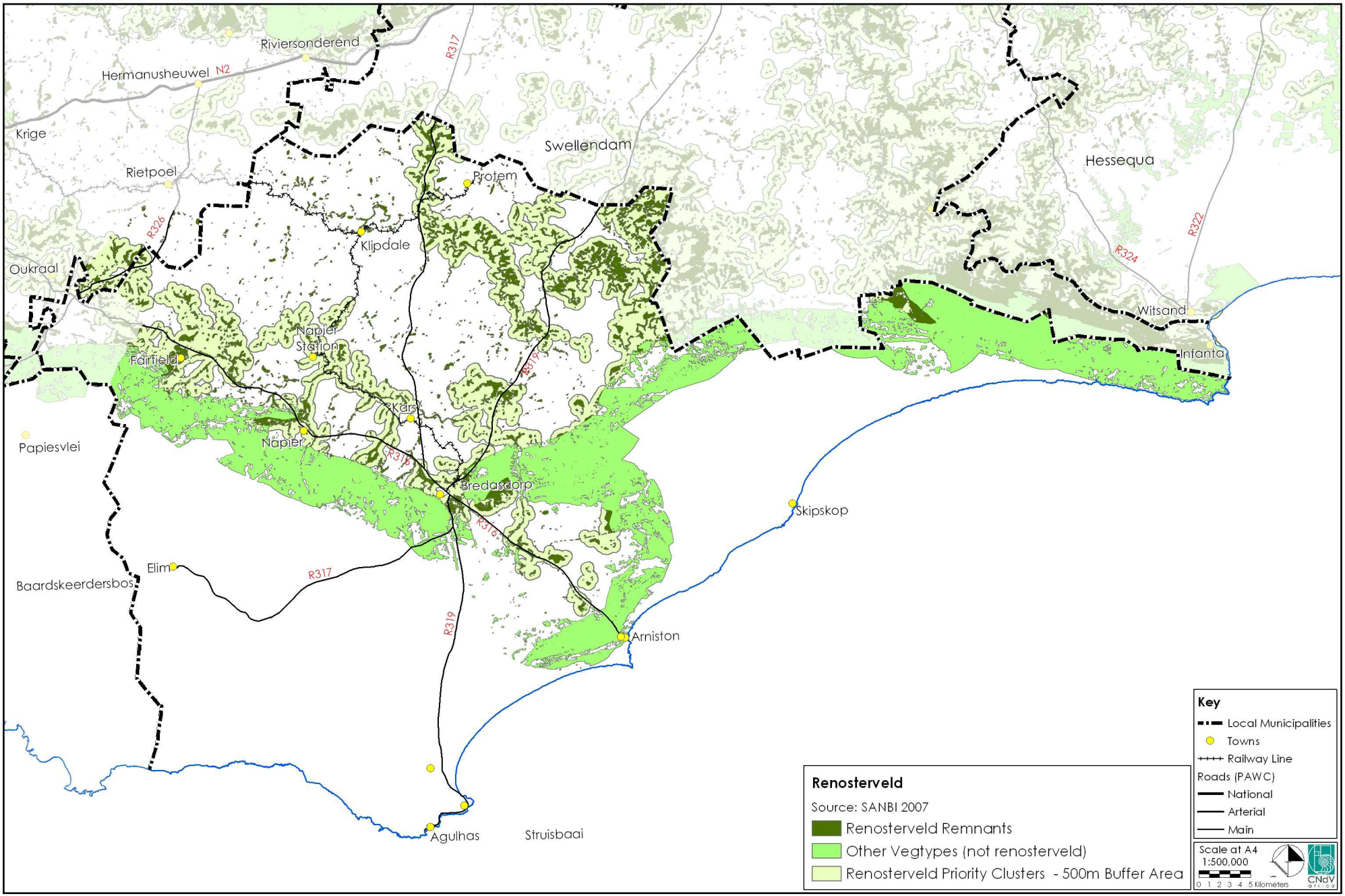



**Figure 2.3.5.2 Renosterveld Habitats applicable to Cape Agulhas Municipality**

Furthermore the Ecosystems Guidelines for Environmental Assessments in the Western Cape (2005) proposes the following spatial guidelines with respect to Renosterveld ecosystems:

- a buffer of 30m between any development, especially agricultural land and core Renosterveld conservation areas;
- avoid the further fragmentation of Renosterveld conservation by maintaining the connections between patches of vegetation;
- fence off silcrete, terricrete and quartz patches (fencing is to accommodate the movement of small reptiles and antelope species).

**Implications for the SDF**

- The Agulhas plain and a large area of the OTB are excluded from the 5 year action plan as they do not contain Renosterveld habitats.
- Significant clusters of core sites are generally found outside of the Municipality.
- There are some remnants of critical vegetation, mainly in the north of the Municipality (The Ruens) which will be identified for conservation protection.

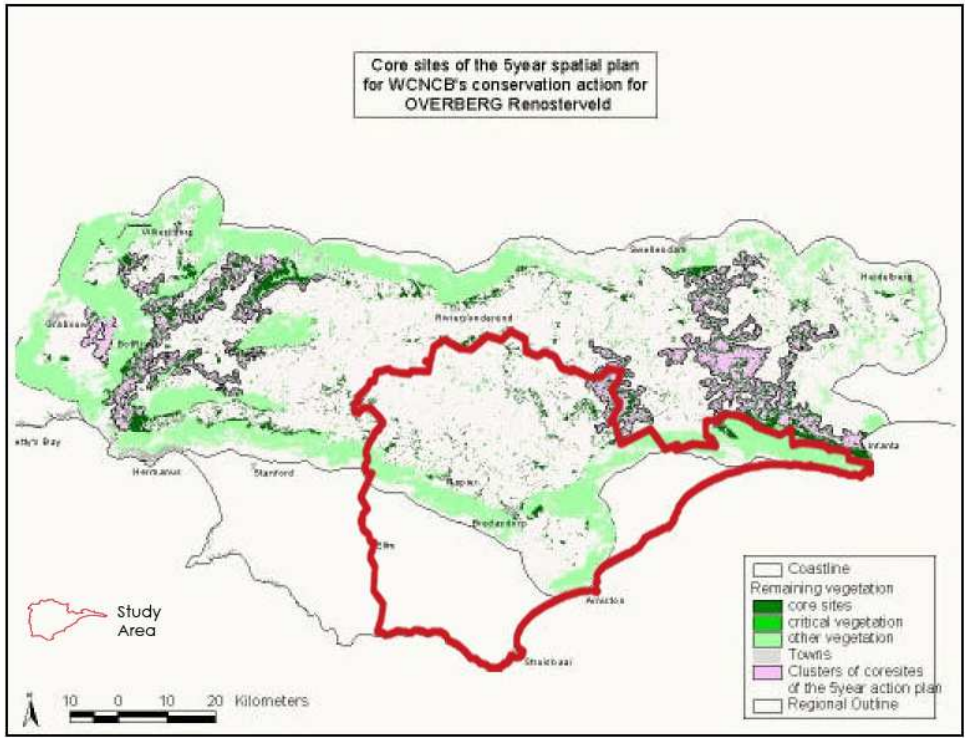



**Figure 2.3.5.3** **The Five Year action plan for conversation in the Overberg Region** (Source: A fine scale conservation plan for Cape Lowlands Renosterveld, 2003)

## 2.4 LOCAL POLICY PLANS

### 2.4.1 Cape Agulhas SDF, 2005

The Spatial planning concept (Plan 2) for the Cape Agulhas SDF identifies areas for bona fides agricultural activities that includes extensive and intensive agricultural practices, see Figure 2.4.1.1.

This SDF deals with agricultural land reform related policies in two sections, namely Agricultural Land Use Policy and Planning Proposals and Strategies: Local Level.

#### *2.4.1.1 Agricultural Development Strategy*

The SDF notes that change of land use from primary agricultural producing areas to other no-agricultural uses can have a negative impact on the environmental processes, ecosystems, character of the area, current settlement patterns, the provision of services and the protection of agricultural land. Therefore, there is a need expressed by the local authority and the Department of Agriculture to deal with land use management to guide decisions regarding land use change to protect and conserve valuable agricultural land for sustainable agricultural activities.

To deal with the concerns of the local authority and the Department of Agriculture the SDF proposes to limit the rural residential development (small holdings) to identified areas inside the urban transitional zones.

The objectives of the agricultural development strategy is to provide guidelines for:

- the establishment of emerging farmers in agricultural small holdings
- the local authority to evaluate land use applications outside the urban areas; and
- the development of emerging farming on municipal and state land;
- as well as protect primary and unique agricultural areas.

The SDF therefore proposes to:

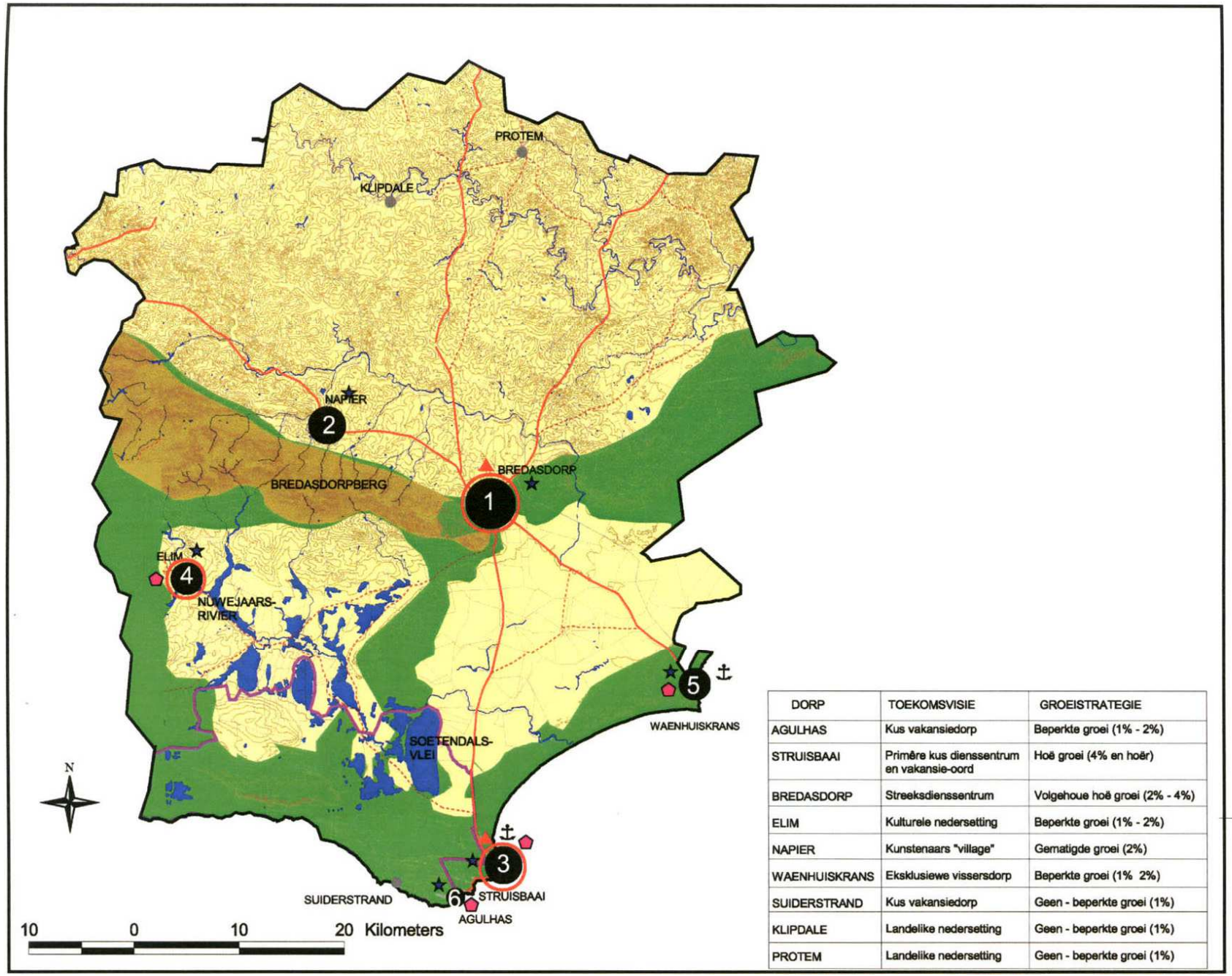
- Protect primary production potential resource areas for agriculture from unwanted land use changes and identify areas that should be earmarked as high agricultural potential areas;
- Facilitate the development of emerging farmers;
- Restrict the subdivision of agricultural land to sustainable economic units.

#### *2.4.1.2 Planning Proposals and Strategies: Local Level*

The local proposals are clustered in the following towns:

- Arniston/ Waenhuiskrans: There is currently no farming taking place on the commonage and no significant agriculture in the immediate areas. Area B3 should be investigated for perlemoen farming to stimulate economic growth and employment opportunities.
- Bredasdorp: large sections of the commonage, mainly on the northern portion of the town, have potential for small farming activities. Studies investigation the ability to Implementation should be initiated and should look at water, vegetation, etc. A piggery is proposed to satisfy the current need.
- Elim: An area east of Elim is currently being used for pine forest and should be protected as it contributes to the natural character of Elim. Emerging farmers should be supported to develop the full potential of the area.
- Klipdale: Has a small commonage and is therefore not suitable for emerging farming.
- L'Agulhas: Does not have a commonage that is suitable for emerging farming.
- Napier: Napier does have a commonage that is currently being leased and used for emerging farming.
- Protem: Protem has a small commonage and is therefore not suitable for emerging farming.
- Struisbaai: Struisbaai does not have municipal owned land that can be used for agricultural purposes. There is no opportunity for emerging farming to use the commonage.
- Suiderstrand: Does not have a commonage that is suitable for agriculture.

**The various planning proposals for the different settlements are shown in Figures 2.4.1.2 to 2.4.1.9.**




| DORP | TOEKOMSVISIE | GROEISTRATEGIE |
|---|---|---|
| AGULHAS | Kus vakansiedorp | Beperkte groei (1% - 2%) |
| STRUISBAAI | Primêre kus dienssentrum en vakansie-oord | Hoë groei (4% en hoër) |
| BREDASDORP | Streeksdienssentrum | Volgehoue hoë groei (2% - 4%) |
| ELIM | Kulturele nedersetting | Beperkte groei (1% - 2%) |
| NAPIER | Kunstenaars "village" | Gematigde groei (2%) |
| WAENHUISKRANS | Eksklusiewe vissersdorp | Beperkte groei (1% 2%) |
| SUIDERSTRAND | Kus vakansiedorp | Geen - beperkte groei (1%) |
| KLIPDALE | Landelike nedersetting | Geen - beperkte groei (1%) |
| PROTEM | Landelike nedersetting | Geen - beperkte groei (1%) |

KAAP AGULHAS

RUIMTELIKE ONTWIKKELINGS-RAAMWERK

RUIMTELIKE BESTUURSKONSEP

Munisipale grens

**NATUURLIKE OMGEWING**
- Beskermde / natuurlike gebiede
- Bergreeks
- Damme / vleiland
- Standhoudende rivier
- Potensiele omvang van Agulhas Nasionale Park

**LANDBOU EN LANDELIKE OMGEWING**
- Bewerke landskap

**DORPE EN STEDELIKE OMGEWING**
- Stedelike nodes
- Nedersetting
- Dorpe met hoë groeipotensiaal
- Kategorie 2 Nasionale Erfenis terreine / hulpbronne

**INFRASTRUKTUUR**
- Spesiale ontwikkelingsprojekte
- Voorkeur Industriële Areas
- Paaie
- Hawe

BRON:

INDEMNITY

DATE: JAN 2006
SCALE: N.T.S.
DRAWING NO: 2
FILE NAME:

CLIENT: KAAP AGULHAS MUNISIPALITEIT

URBAN DYNAMICS WESTERN CAPE
TOWN & REGIONAL PLANNERS
SEA VIEW BUILDING
NO. 3 DU WOOD WAY
BELLVILLE - 7530
PO BOX 2445
BELLVILLE
7535
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FAX: (021) 948 1588
e-mail: gerhard@udwc.co.za (Project Manager)

**Figure 2.4.1.1 Cape Agulhas Spatial Development Framework : Spatial Management Concept**

### 2.4.2 Cape Agulhas Municipality Integrated Development Plan 2011-2012

The IDP has the following as the vision for the municipality:

"To render continuous, sustainable effective services to all inhabitants and visitors in the areas in order to create a healthy and safer environment for happy communities."

The vision is supported by the following mission:

"We the Cape Agulhas Municipality will strive to render the best affordable municipal services in a sympathetic manner to the whole areas and its inhabitants in order to create a happy economic active and informed community."

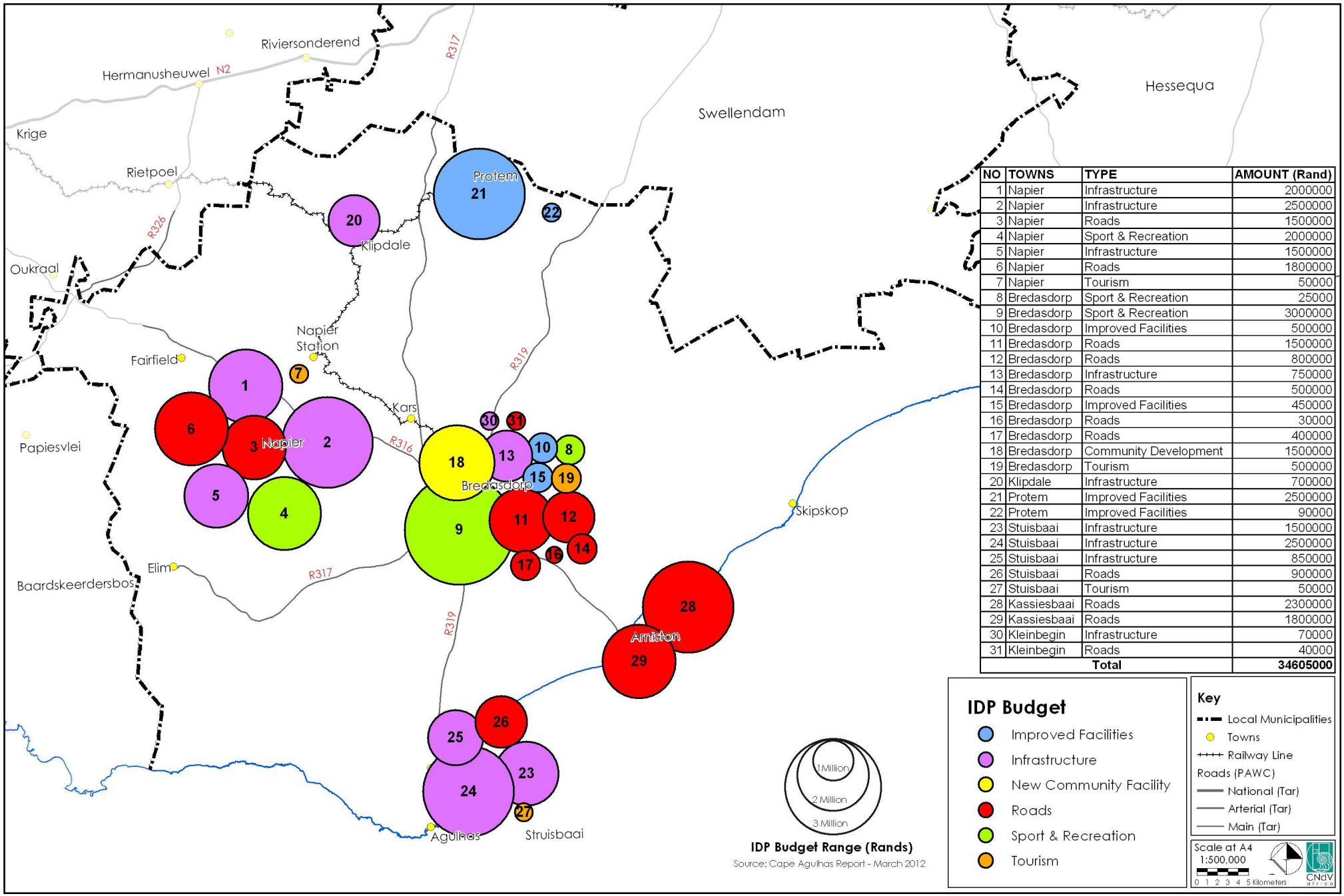
The IDP has the following key strategic objectives:

- "To implement internal policies, strategies and work procedures in an integrated manner;
- To improve the standard of basic service delivery in the entire Cape Agulhas Municipality;
- To facilitate economic development by creating a conducive environment for business development and unlock opportunities to increase participation amongst all sectors of society in the mainstream economy;
- To manage municipal resources in such a way that it improves the sustainability of municipal assets and daily activities as well as to ensure that financial planning and budget linkages can be executed effectively;
- To provide an administration that ensures public participation in a transparent and accountable way as well as to promote intergovernmental relations;
- To facilitate the holistic development of people and implement sustainable programmes to improve their livelihoods.

Table 2.4.2.1 reflects the priority needs as represented by the different ward committee members (IDP 2011/12).

| No | Name of Project | Description | Amount (R) (m) |
|---|---|---|---|
| | | **Napier** | |
| **1.** | Improved water storage capacity | The channeling of water from reservoirs & dams to a bigger storage facility for irrigation purposes | 2.00 |
| **2.** | Improved water storage capacity | Construction of a 2ml reservoir | 2.50 |
| **3.** | Upgrading of gravel roads | Improve gravel surface of Eskom, Krag & Swart streets | 1.50 |
| **4.** | Sport & recreation facilities | Developing of recreation facilities such as play parks, soccer field, bowls court and putting up of bus shelters | 2.00 |
| **5.** | Electricity distribution | Upgrading of electricity network | 1.50 |
| 6. | Upgrading of roads | Tarring of Joseph, Hertzog & October streets | 1.80 |
| 7. | Putting up of Lay-Buys | Putting up of lay buys and updating the information notice boards to improve tourism | 0.05 |
| | **Sub Total** | | 16.30 |
| | | **Bredasdorp** | |
| **8.** | Improved sport & recreation facilities | Upgrading of existing tennis courts at the Park Street Sport grounds | 0.25 |
| **9.** | Sport & recreational facilities | Building of a public swimming pool | 3.00 |
| **10.** | Improved ablution facilities | Complete the bathroom project at the sub-economic houses | 0.50 |
| **11.** | Upgrading of roads | Upgrading of the connection road from Fabrieks Road to Lang Street | 1.50 |
| **12.** | Upgrading of sidewalks | Paving of side walks in Fabrieks Road | 0.80 |
| **13.** | Stabilising of river banks | Stabilizing of the banks of the Droërivier with gabions | 0.75 |
| **14.** | Upgrading of roads & Sidewalks | Upgrade of streets & side walks to be identified by the ward committee | 0.50 |
| **15.** | Upgrading of houses | Upgrading of municipal houses in ward 4 | 0.45 |
| **16.** | Replacement of road signs | Replace damaged road signs and putting up of street names where required | 0.03 |
| **17.** | Speed calming mechanisms | Putting up of speed bumps | 0.40 |
| **18.** | Well –being of vulnerable children & the aged | Putting up of a safehaven for vulnerable children & old people | 1.50 |
| **19.** | Putting up of Lay-Buys | Putting up of lay buys and updating the information notice boards to improve tourism | 0.05 |
| | **Sub Total** | | 9.73 |
| | | **Klipdale** | |
| **20.** | High mast lighting | Putting up of high mast lighting at the informal settlement and sport grounds | 0.70 |
| | **Sub Total** | | 0.70 |

**Table 2.4.2.1 IDP Budget 2011-2012 (Prioritised needs)**




| NO | TOWNS | TYPE | AMOUNT (Rand) |
|---|---|---|---|
| 1 | Napier | Infrastructure | 2000000 |
| 2 | Napier | Infrastructure | 2500000 |
| 3 | Napier | Roads | 1500000 |
| 4 | Napier | Sport & Recreation | 2000000 |
| 5 | Napier | Infrastructure | 1500000 |
| 6 | Napier | Roads | 1800000 |
| 7 | Napier | Tourism | 50000 |
| 8 | Bredasdorp | Sport & Recreation | 25000 |
| 9 | Bredasdorp | Sport & Recreation | 3000000 |
| 10 | Bredasdorp | Improved Facilities | 500000 |
| 11 | Bredasdorp | Roads | 1500000 |
| 12 | Bredasdorp | Roads | 800000 |
| 13 | Bredasdorp | Infrastructure | 750000 |
| 14 | Bredasdorp | Roads | 500000 |
| 15 | Bredasdorp | Improved Facilities | 450000 |
| 16 | Bredasdorp | Roads | 30000 |
| 17 | Bredasdorp | Roads | 400000 |
| 18 | Bredasdorp | Community Development | 1500000 |
| 19 | Bredasdorp | Tourism | 500000 |
| 20 | Klipdale | Infrastructure | 700000 |
| 21 | Protem | Improved Facilities | 2500000 |
| 22 | Protem | Improved Facilities | 90000 |
| 23 | Stuisbaai | Infrastructure | 1500000 |
| 24 | Stuisbaai | Infrastructure | 2500000 |
| 25 | Stuisbaai | Infrastructure | 850000 |
| 26 | Stuisbaai | Roads | 900000 |
| 27 | Stuisbaai | Tourism | 50000 |
| 28 | Kassiesbaai | Roads | 2300000 |
| 29 | Kassiesbaai | Roads | 1800000 |
| 30 | Kleinbegin | Infrastructure | 70000 |
| 31 | Kleinbegin | Roads | 40000 |
| | | **Total** | **34605000** |

**Figure 2.4.2.1 IDP Projects**

| No | Name of Project | Description | Amount (R) (m) |
|---|---|---|---|
| | | **Protem** | |
| **21.** | Improved health care facilities | Building of a fully equipped clinic | 2.50 |
| **22.** | Improved community facilities | Upgrading and expansion of the existing Community Hall with a roof shelter | 0.09 |
| | **Sub Total** | | 2.59 |
| | | **Struisbaai** | |
| **23.** | Upgrading of infrastructure | Relocation and upgrading of existing pump station | 1.50 |
| **24.** | Improved water storage capacity | Construction of a 2ml reservoir | 2.50 |
| **25.** | Upgrading of stormwater network | Upgrading of stormwater network: 1st – 3rd Avenue | 0.85 |
| **26.** | Upgrading of roads | Upgrading of access road to the Community Hall | 0.90 |
| **27.** | Putting up of Lay-Buys | Putting up of lay buys and updating the information notice boards to improve tourism | 0.05 |
| | **Sub Total** | | 5.80 |
| | | **Kassiesbaai** | |
| **28.** | Upgrading of roads | Completion of Ring road project | 2.30 |
| **29.** | Upgrading of roads | Paving of the other portion of Kamp Street | 1.80 |
| | **Sub Total** | | 4.10 |
| | | Kleinbegin | |
| 30. | Effective refuse removal system | Placement of refuse containers at strategic places | 0.07 |
| 31. | Speed calming mechanisms | Putting up speedbumps in Wilger Ave & Gonabos Street | 0.04 |
| | Sub Total | | 0.11 |
| | TOTAL | | R39.330.000 |

**Table 2.4.2.1 IDP Budget 2011-2012 (Prioritised needs) (cont.)**

### 2.4.3 Overberg District Management Area Spatial Development Framework, Volume II, Development Strategy

To attain the visions as set out in the SDF for the Overberg DMA, the need arose to develop a set of objectives:

- Stimulate economic development;
- Promote tourism;
- Promote heritage resources;
- Promote conservation;
- Limit and control development in environmentally sensitive areas; and,
- Evaluate the effect proposed development will have on future developments.

The spatial proposals for the Overberg DMA are shown on Figure 2.4.3.1. Four main land use zones are shown, namely:

- Transition Zone: provides for nature orientated recreational activities;
- Development Zone: provides for infrastructure development to be developed at :
  - De Hoop Opstal
  - Koppie Alleen;
  - Potberg; and,
  - Melkkamer Tourist Accommodation.
- Wilderness Zone: maintain wilderness areas;
- OTB/Air Force Base Zone: has also been identified where it is proposed to provide infrastructure development associated with the Air Force Base

The above-mentioned spatial proposals can be achieved by implementing these strategic spatial development priorities:

- Tourism facilities;
- Infrastructure (sewerage, water, solid waste, and roads);
- Conservation;
- Heritage resources (De Hoop = Grade 2 and most of the heritage resources can be classified as Grade 3; and,
- Weapons testing and the Air Force Base (could be expanded for commercial use)

The following buildings/ infrastructure and archaeological resources have been identified as conservation worthy together with the proposed classification.

| Building/ Infrastructure | Grade 1 | Grade 2 | Grade 3 |
|---|---|---|---|
| Klipfontein Farmhouse | | * | |
| Agterstekraal farm house | | * | |
| Hardevlakte-Groenwald | | | * |
| Melkkamerkomplex | | * | |
| Buffelsfontein A1, A2 | | | * |
| Cemetery at Skipskop | | | * |
| Skipskop church/ school | | | * |
| Shell middens (Meisiesbaai) | | * | |
| "Viswywers" | | | * |
| Dunes Area | | * | |
| February's Cave | | * | |
| Sandkloof shelter | | * | |

**Table 2.4.3.1 Buildings/ Infrastructure and Archaeological Resources** (source: Urban Dynamics, 2006)

The document concludes by recommending that it be adopted as the Spatial Development Framework plan for the Overberg DMA. The SDF is to be revised in its entirety and as required as per the revised spatial proposals for each development. The IDP is to be revised simultaneously.

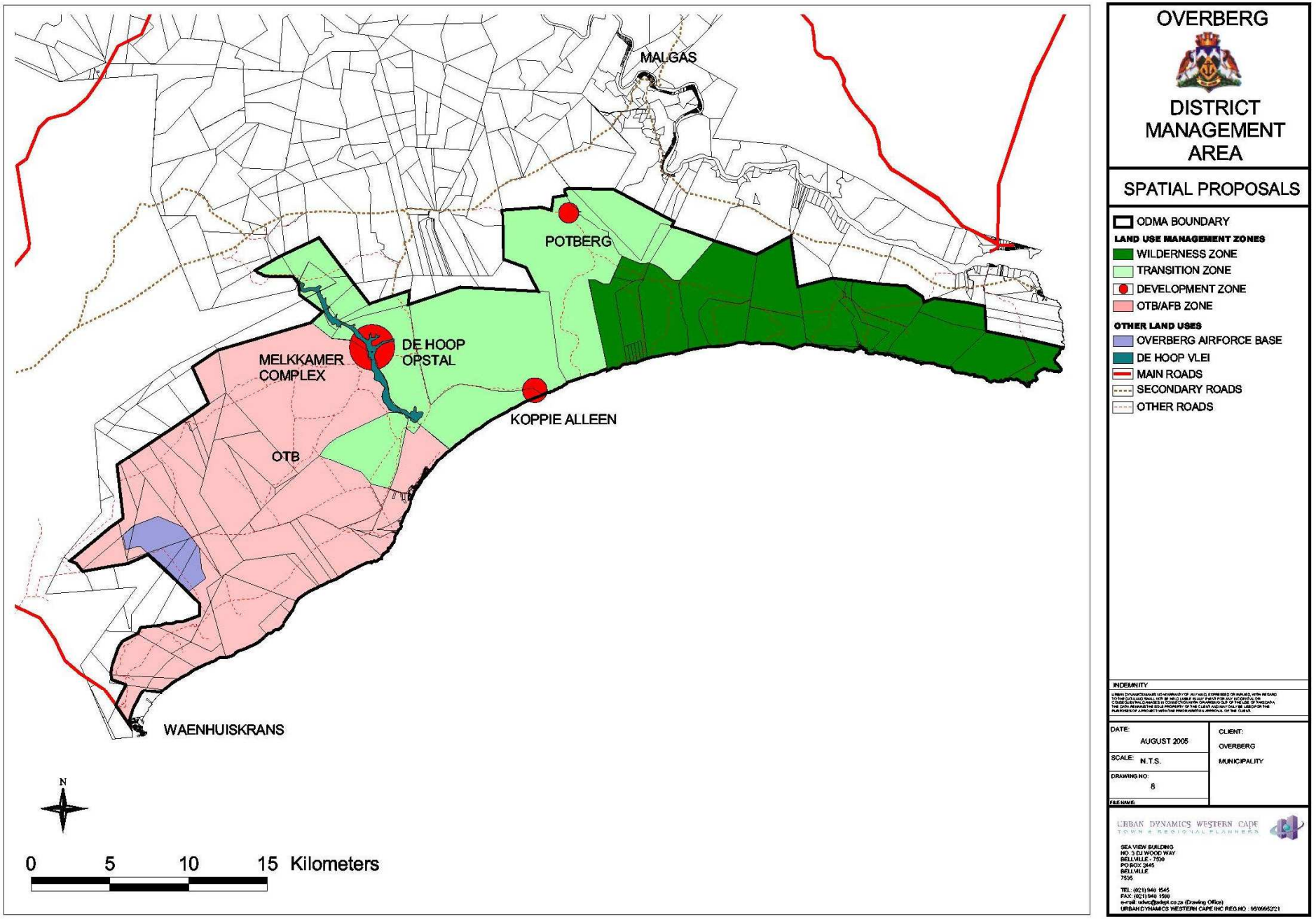



**Figure 2.4.3.1 Overberg DMA SDF** (source: Urban Dynamics, 2005)

### 2.4.4 Disaster Management Plan

Disaster management is governed by the Disaster Management Act (No 57 of 2002) and aims to:

- Prevent or reduce the impact of disasters;
- Mitigate against the severity of disasters;
- Enhance emergency preparedness;
- Decrease response times; and to
- Improve rehabilitation following a disaster.

In line with this act and to effectively address disaster management the Cape Agulhas Municipality prepared a Disaster Management Plan, draft framework and Disaster Management Centre. The Disaster Management Plan consists of the following emergency plans:

- Multi-discipline Incident Management Plan
- ODM Search and Rescue Contingency Plan
- Provincial Government of the Western Cape (PGWC) Foot-and-Mouth 5 Point Emergency Plan
- Mass Casualty Contingency Plan (Plan Delta)
- PGWC Helicopter Operational Plan: Air based fire combating

A risk profile analysis was conducted detailing potential risks and impacts for the Cape Agulhas Municipality. (refer to Table 2.4.4.1).

| | FLOODS | | | |
|---|---|---|---|---|
| | **DISASTER** | **DAMAGES** | **REMEDY** | **COST** |
| 2005 | Napier: Trade Street bridge | Bridge completely destroyed. | Repaired in 2006 | |
| 2008 | Napier: Trade Street bridge | Bridge completely destroyed. | Repaired in 2009 | R1,800 000 |
| 2008 | Napier: Flooding and eroding of gravel | Lack of drainage systems and steep slopes caused damage during flood. | Roads repaired | R1,250 000 |
| 2008 | Bredasdorp: Flooding of Ou Meule Street, Bastion Street and Geel Street. | Insufficient stormwater system. | Upgrade Ou Meule Street channel (Bastiaan Street up to Ou Meule Street) | R3,500 000 |
| 2009 | Struisbaai/L'Agulhas: Cloud break | Damages caused to streets, private properties and stormwater system (Marine Drive). | Repaired | R2,500 000 |

| | FIRE | | | |
|---|---|---|---|---|
| | **DISASTER** | **DAMAGES** | **REMEDY** | **COST** |
| 2009/2010 | Cape Agulhas Municipality: Small veld fires | Serious damage to properties | - | - |
| 2009/2010 | Informal Settlement Fires: Burning down of informal settlements | Damages to informal settlements Zwelitsha (Bredasdorp), Ou Kamp (Struisbaai North) and Smatie Town (Napier). | - | - |
| 2010 | Struisbaai: SANParks fire | Damages to plantations and wildlife. | - | - |

| | MASS EVENTS | | | |
|---|---|---|---|---|
| | **DISASTER** | **DAMAGES** | **REMEDY** | **COST** |
| 2009 | Arniston Fly-in Air Force Base: Aeroplane crash | Pilot died. | - | - |

| | ENVIRONMENTAL THREATS | | | |
|---|---|---|---|---|
| | **DISASTER** | **DAMAGES** | **REMEDY** | **COST** |
| 2008/'09/'10 | Informal Areas:<br>Xenophobia attacks | Violence and property damage | - | - |

**Table 2.4.4.1 Potential Risks Cape Agulhas Municipal Area** (Source: CAM Draft IDP – 2011-2012)

## 2.5 LOCAL INITIATIVES

### 2.5.1 Elim Integrated Agricultural Development Plan

This plan is a strategic action plan, funded by the Department of Agriculture to serve as a framework to facilitate the organised and integrated development of agriculture in Elim. It is a broad business plan focussing on the agricultural and conservation aspects of the land in Elim whereby specific aspects are listed and evaluated in regard to supportive and restrictive factors.

Two opportunities that are seen as priority implementation projects are vineyards : wine projects and flower projects. These are planned in detail to ensure phased implementation.

The planning was done in an inclusive manner with a number of workshops with the local Elim agricultural planning committee.

This plan records that in 1991:
- only 10% of the population of Elim was involved in agriculture;
- the population was about 2500 people;
- the church owned 6446 ha of land; and
- the town had 425 residential properties.

Furthermore, it is noted that a number of self sustainable projects were initiated such as the tourism office, historic mill and guesthouse, and the Land Care projects.

Of the approximately 6500ha of church owned land approximately 3000 ha was highly arable (with the greater proportion of it being utilised) and about 3500ha less arable that are covered with endemic fynbos. Table 2.5.1.1 below quoted from the Casidra report in the Elim Integrated Agriculture Development Plan, shows the quality of the land around Elim.

| Description | Area | Land Use |
|---|---|---|
| Medium to high Quality (irrigation) | 66 | Gardens |
| Medium Quality | 2127 | Dryland forest |
| Low Quality | 3743 | Fynbos |
| Water saturated | 1091 | Ecologically sensitive |
| **TOTAL** | **7027** | |

**Table 2.5.1.1 Quality of Land Around Elim**
(source: Elim Integrated Agricultural Development Plan)

The agricultural potential was determined and reported in the Casidra report as quoted in the Elim Integrated Agriculture Plan and proposed the following:
- only the best potential agricultural land should be utilised for wheat production;
- marginal plough lands must be established using nitrogen binding grazing crops;
- Improved techniques are needed to increase the livestock farming;
- The fynbos practices must be in accordance with a plan that includes the production of fresh flowers;
- Gardening must be developed through acceptable systems with improve drainage, plots rotation systems, upgrading of irrigation services and cleaning of the underutilised plots; and
- A general support network must be in place.

The agricultural concerns in the Elim area are:
- Sandy soil that is susceptible to wind water and erosion;
- Risk of rain during the wheat crop harvest time;
- Few planted grazing lands especially on low potential soil;
- Very low arable soils causing high costs to establish grazing;
- Invader species especially rooikrans;
- Capital and knowledge shortage to deal with development;
- Poor road access; and
- No rail access.

A detailed survey was conducted and reported in the Elim Integrated Agriculture Plan and favoured the following agricultural activities:
- Existing Projects: Mushrooms; wheat; wild flowers; meat cattle; sheep; pigs, bees; bakery and traditional gardening.
- New Projects: Wine cellar; fynbos; vineyards (grapes); and dairy.

Detailed planning has is currently underway for the dairy.

The agricultural survey showed that:
- 96% of those surveyed believed that agriculture can be profitable in Elim;
- 78% want to be involved in agriculture;
- 97% support agricultural production in Elim;
- 82% believe that land reform on agricultural land in Elim is needed;
- 59% believed that agricultural land in Elim is not awarded fairly;

- 49% believed that the people of Elim have the necessary farming skills;
- 95% believed that tourism should be encouraged in Elim.

The critical problems identified in the survey are:
- No enough land available;
- Shortage of experience/ training;
- Unfair allocation of land;
- Water shortages;
- Limited finances;
- Lack of farming inputs; and
- Lack of implements;

The plan proposed the establishment of the Elim Integrated Agricultural Development Plan Development Cooperative Limited to oversee the implementation and manage the entire development. Separate companies with separate boards, to deal with the vineyards, dairy, etc., are proposed as part of this cooperative.

The financial plan proposes paying out of dividends as of the 5th year.

Three projects to be initiated in the short term, are proposed:
- Elim Mission vineyard creating 40 permanent and 30 seasonal jobs;
- Elim Dairy creating 4 permanent jobs; and
- Elim Flowers retaining the 30 permanent and additional 30 jobs over time.

### 2.5.2 Agulhas Biodiversity Initiative

The Agulhas Biodiversity Initiative (ABI) is aimed at highlighting and addressing the main threat to the significant Fynbos biodiversity of the Cape Agulhas Plains and to improve the communities that reside there by interlinking conservation, development and socio-economic activities.

The Agulhas Plain covers more than 270 00ha of semi-arid, lowland fynbos and Renosterveld. It has over 2500 plant species that are known from the area of which more than 100 listed as Red Data species and 100 locally endemic and unique vegetation types. The Agulhas Plain also has important bird and terrestrial mammal habitats.

This initiative has been successfully operational since the end of 2004. These are joint partnerships between South Africa National Parks, Flora and Fauna International and United Nations Development Programme. The ABI has five key focus areas:

- Conservation planning and management in the Agulhas Plain:
  - Increase conservation land;
  - Develop a conservation management system between national and local parks;
  - Promote private reserves and conservancies;
  - Undertake fire management;
  - Identify areas for alien clearing; and,
  - Assess the potential for the area to be a biosphere reserve.
- Sustainable use of wild Fynbos flowers:
  - Research current harvesting;
  - Implement sustainable harvesting;
  - Monitoring programme for harvested wild Fynbos; and,
  - Micro enterprise development and market development.
- Nature based tourism strategy:
  - Assess tourism opportunities;
  - Local communities to participate in nature based tourism; and,
  - Develop and implement tourism strategies for the Agulhas Plain.
- Build local support for biodiversity conservation in the Agulhas Plain
- Identification of key constraints to conservation

The ABI uses the Flower Valley Farm as a pilot and has formed the Flower Valley Conservation Trust in 1999 for biodiversity conservation and community empowerment.

ABI intends to create a mosaic of protected areas as these areas in the region are small and dispersed which is difficult for conservation.

Since the project began the Agulhas National Park has been expanded by more than 6000ha and more than 5000ha has been cleared of invasive species.

The statistics and land uses in the Agulhas Plain are as follows (Source: www.64.233.183.104/)

| | |
|---|---|
| Size of the Region: | 270 000ha |
| Total Number of inhabitants: | 45 000 |
| Livestock Farms (grazing, cash crops and game): | 108 000ha |
| Fynbos Farms: | 75 600ha |
| Conservation Areas: | 56 304ha |
| Mixed Farms: | 27 000ha |
| Area of transformed land: | 70 000ha |

The Agulhas Plain Tourism Forum was also established to assist local communities to participate in tourism activities in the area. These tourism activities include eco-tourism activities.

The project initiated the establishment of the Agulhas Plain Heritage Centre, Learning Centre for the community's children and sees to the training of local women with the support of the Western Cape Education Department.

### 2.5.3 STRUISBAAI FRAMEWORK PLAN: STATUS QUO REPORT, 2002

The purpose of the Struisbaai Framework Plan is to "provide guidelines for the future development and the conservation of the area between the existing caravan park and the harbour area, as well as to provide the Local Authority with a frame of reference which can be used to assess development applications in the future." This can be achieved by:

- Having a policy framework in place to guide all future development;
- Planning strategies should ensure the integration of the physical environment, social and economic factors;
- Encouraging economic growth and tourism developments;
- Taking the impact on the environment and infrastructure into account;
- Providing guidelines with respect to development parameters.

The Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the study and has taken the development context, natural environment and community concerns into account.

The study area has been divided into seven land use zones A – G:

A. Coastal Zone
B. Harbour Zone
C. Coastal Zone
D. Open Space
E. Caravan Park and Hotel Zone
F. Dune Slack Zone
G. Coastal Dune Zone

***A. Coastal Zone A:***
This area is not suitable for development but is proposed to be a conservation area. The study has found that on an opportunity exists to formalise the roads and access points.

**B. Harbour Zone:**
The SWOT analysis has earmarked this zone suitable for development (situated in close proximity to the CBD) with the possibility of developing recreation facilities as well as public amenities and public administration facilities (offices and management).

**C. Coastal Dune:**
Zone C is not suitable for any further development but should be established as a conservation area.

**D. Open Space:**
This zone is earmarked as a high-risk zone due to coastal process between the high water mark and the northern boundaries of the erven along Minnetokka Road. The area is a suitable site for public recreation and public amenities but not for further development. An opportunity exists with regards to environmental authorisation.

**E. Caravan Park and Hotel:**
Zone E is an area suitable for development, recreation and also coastal rehabilitation. The site could also be used for additional parking, public facilities and day visitors. As with Zone D, this zone is a high-risk zone in terms of coastal process between the high water mark and the north-eastern subdivision line along Port Jackson Avenue.

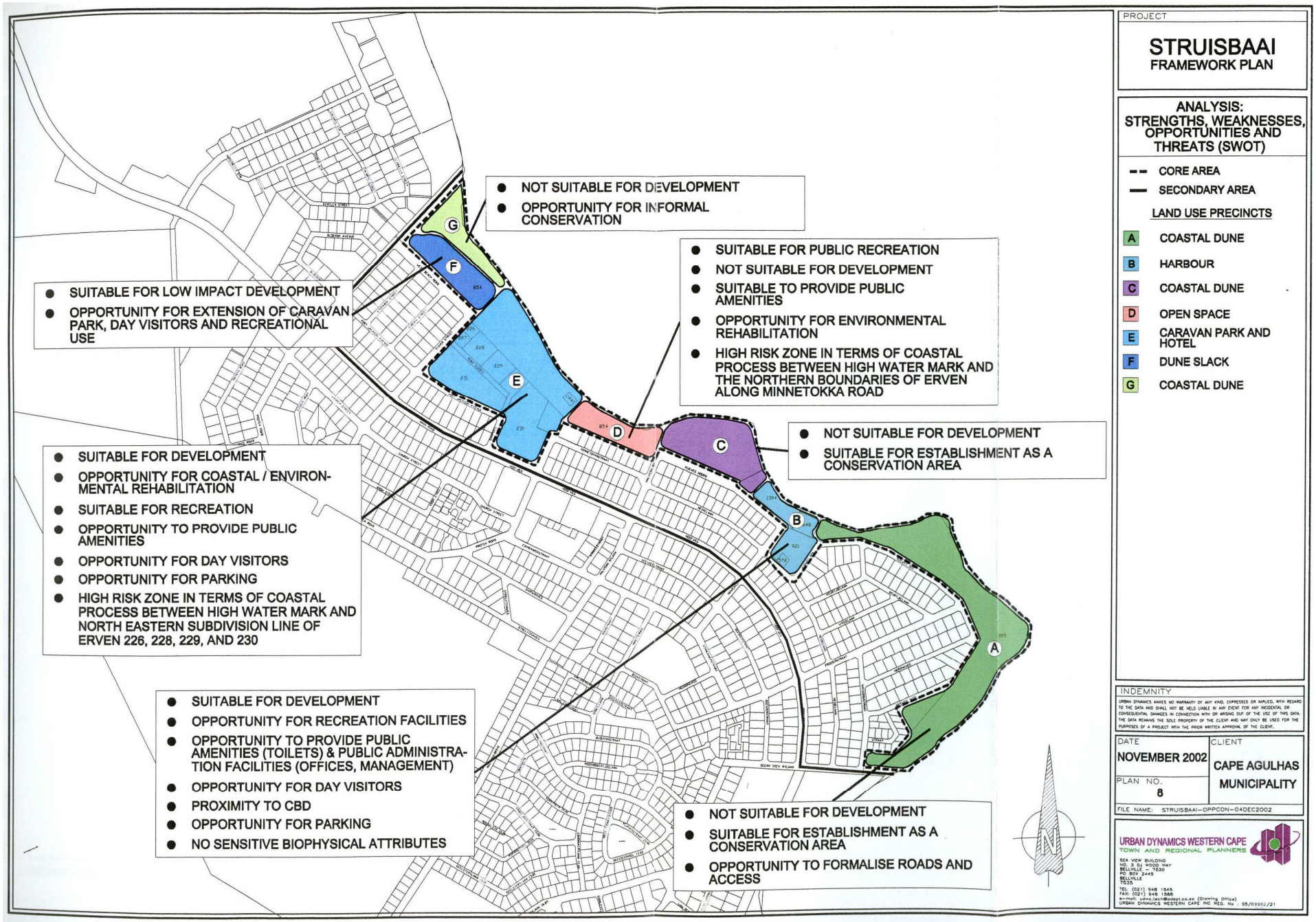



**Figure 2.5.3.1 Struisbaai Framework Plan SWOT Analysis** (source: Urban Dynamics, 2005)

**F. Dune Slack Zone:**
This zone is suitable for low impact development. The opportunity exists to develop the site for day visitors by extending the caravan park and incorporating recreational activities.

**G. Coastal Dune:**
Zone G is not suitable for development but could be used for informal conservation purposes.

### 2.5.4 STRUISBAAI AND L'AGULHAS CBD'S SPATIAL DEVELOPMENT FRAMEWORK, OCTOBER 2002

This documents aims to provide a set of guidelines within business areas with regard to the future development of the CBD as well as providing guidelines for the areas surrounding the CBD.

The SDF has identified primary and secondary businesses areas for Struisbaai and L'Agulhas. Secondary business areas include land that is zoned business but is located outside the CBD as well as land zoned for residential purposes but partially used for business.

#### *2.5.4.1 Future Business in Struisbaai*

The SDF proposes that the future approval of Gross Leasable Area (GLA) be concentrated in the CBD and the remainder allocated for the secondary business area with a 60/40-percentage split. By the year 2011 this would result in 3916m² GLA in the CBD and 1437m² GLA in the secondary business area.

- *Options for future GLA in the CBD:*

| | |
|---|---|
| Option1 Double-Side full | Assume full development on both sides of main road. The existing CBD to be fully developed with in-fill buildings. |
| *Option 2A (Double-Side Partial)* | Assume full development on both sides of main road but the western side of the existing CBD to not be developed until 2011. |
| *Option 2B (Double-Side Partial)* | Assume the development of specific municipal and private land. 50% of residential land will be converted into business premises. |
| *Option 2C(Double-Side Partial)* | Assume 50% development to the east of the main road privately owned land may include 205-50% of the GLA allowed. |
| *Option 3(Double-side- In-fill residential* | Assume the remainder of land not used for residential in-fill be fully developed. |

**Table 2.5.4.1 Options for future GLA in the CBD**

- *Urban Design Proposal*

Future buildings are proposed to have 40% coverage per erf. Landscaped off-street parking has been provided for. Defining the main road can enhance the character of the CBD.

- *GLA in Secondary Business areas*

The GLA to be provided by 2001 does not include tourist accommodation businesses. Secondary business nodes include the harbour areas and the beachfront.

- *Informal Trade in Struisbaai*

The SDF has identified a site for informal trade, which will accommodate 47 stalls (3.5x5.5m) as well as the associated parking requirements. It is envisaged that this site not be in the form of a permanent structure for any changes to be accommodated if required.

#### *2.5.4.2 Future Business in L'Agulhas*

- *Condensed CBD*

At present 80% of the business in L'Agulhas is located in the CBD. In time, this is expected to strengthen due to the link main road linkage between the National Park and the Lighthouse.

- *Options for GLA in the CBD:*

Provision has been made for an additional 724m² GLA in the CBD by the year 2011 with 184m² GLA for the secondary business area. There is sufficient land available for development if the demand of GLA exceeds what has been calculated. The SDF proposes that zoning applications from residential to business only be approved once the CBD has been efficiently utilised.

- *Future GLA in secondary business areas*

It is anticipated that the Zoetendalsrug business area be the only secondary business node required and the home business pattern will intensify along the main road.

- *Urban Design Proposal*

New buildings are positioned to allow for extensions of existing buildings on either side of the Main Road. The character of the main road can be enhanced with tree lines on either side of the Main road. Parking is a

seasonal issue that has been raised by the community. A detailed road and parking layout is required for approval by the District Roads Engineer.

- *Development Guidelines for CBD Struisbaai and L'Agulhas*

| Zoning: | Primary Use<br>*subject to Draft Zoning Scheme Regulation* | Consent Use | Advertising: | Land Use Management / Zoning Scheme Regulations |
|---|---|---|---|---|
| Business Zone I | Business Building<br>Hotel and Off-sales<br>Offices<br>Shop | Service Industry<br>Service Station<br>Public Garage<br>Place of Assembly<br>Place of Entertainment | PCU (For details refer to Paragraph 6.5.5 and Annexure C) | For: **Floor Factor; Coverage; Building Height; Parking; Building Lines** etc. refer to Draft Zoning Scheme Regulations, June 2002. |
| Business Zone II | Small Businesses<br>Local Business Zone | Group housing<br>Flats | | |
| Business Zone III | Business Buildings<br>Warehouse<br>Flats above ground level | Dwelling houses | | |
| Service Station | Service Station | Public Garage | | |

**Table 2.5.4.2 Development Guidelines for CBD Struisbaai and L'Agulhas** (source: TV3, 2002)

- *Development Guidelines for the periphery adjacent to Main Road Struisbaai and L'Agulhas*

| Zoning: | Primary Use<br>*subject to Draft Zoning Scheme Regulation* | Consent Use | Advertising: | Land Use Management / Zoning Scheme Regulations |
|---|---|---|---|---|
| Residential Zone I | Dwelling House | Additional Dwelling Unit<br>Bed-and-Breakfast<br>Medical Practitioners/ Home Occupation<br>Guesthouse<br>Place of Instruction | MCU (For details refer to Paragraph 6.5.5 and Annexure C) | For: **Floor Factor; Coverage; Building Height; Parking; Building Lines** etc. refer to Draft Zoning Scheme Regulations, June 2002. |
| Residential Zone IV | Dwelling Unit<br>Guesthouse<br>Bed-and Breakfast | Townhouse<br>Group housing<br>Hotel<br>Institutional building<br>Place of instruction<br>Professional usage<br>Place of assembly<br>Flats | | |

**Table 2.5.4.3 Development Guidelines for the periphery adjacent to Main Road Struisbaai and L'Agulhas** (source: TV3, 2002)

- *Development Guidelines for secondary nodes Struisbaai and L'Agulhas*

| Zoning: | Primary Use<br>*subject to Draft Zoning Scheme Regulation* | Consent Use | Advertising: | Land Use Management / Zoning Scheme Regulations |
|---|---|---|---|---|
| Light Industry | Service Station<br>Light Industry<br>Warehouse | Public Garage<br>Place of entertainment | MCU (For details refer to Paragraph 6.5.5 and Annexure C) | For: **Floor Factor; Coverage; Building Height; Parking; Building Lines** etc. refer to Draft Zoning Scheme Regulations, June 2002. |
| Industry | Warehouse<br>Industry<br>Light Industry<br>Transport enterprise<br>Public Garage | Scrapyard<br>Place of entertainment | | |
| Noxious Industry / High Risk enterprise | Scrapyard<br>Noxious Industry/ High Risk enterprise<br>Public Garage | Scrapyard | | |
| Service Station | Service Station | Public Garage | | |
| Business Zone I | Business Building<br>Hotel and Off-sales<br>Offices<br>Shop | Service Industry<br>Service Station<br>Public Garage<br>Place of Assembly<br>Place of Entertainment | PCU (For details refer to Paragraph 6.5.5 and Annexure C) | For: **Floor Factor; Coverage; Building Height; Parking; Building Lines** etc. refer to Draft Zoning Scheme Regulations, June 2002. |
| Business Zone II | Small Businesses<br>Local Business Zone | Group housing<br>Flats | | |
| Business Zone III | Business Buildings<br>Warehouse<br>Flats above ground level | Dwelling houses | | |

**Table 2.5.4.4 Development Guidelines for secondary nodes Struisbaai and L'Agulhas** (source: TV3, 2002)

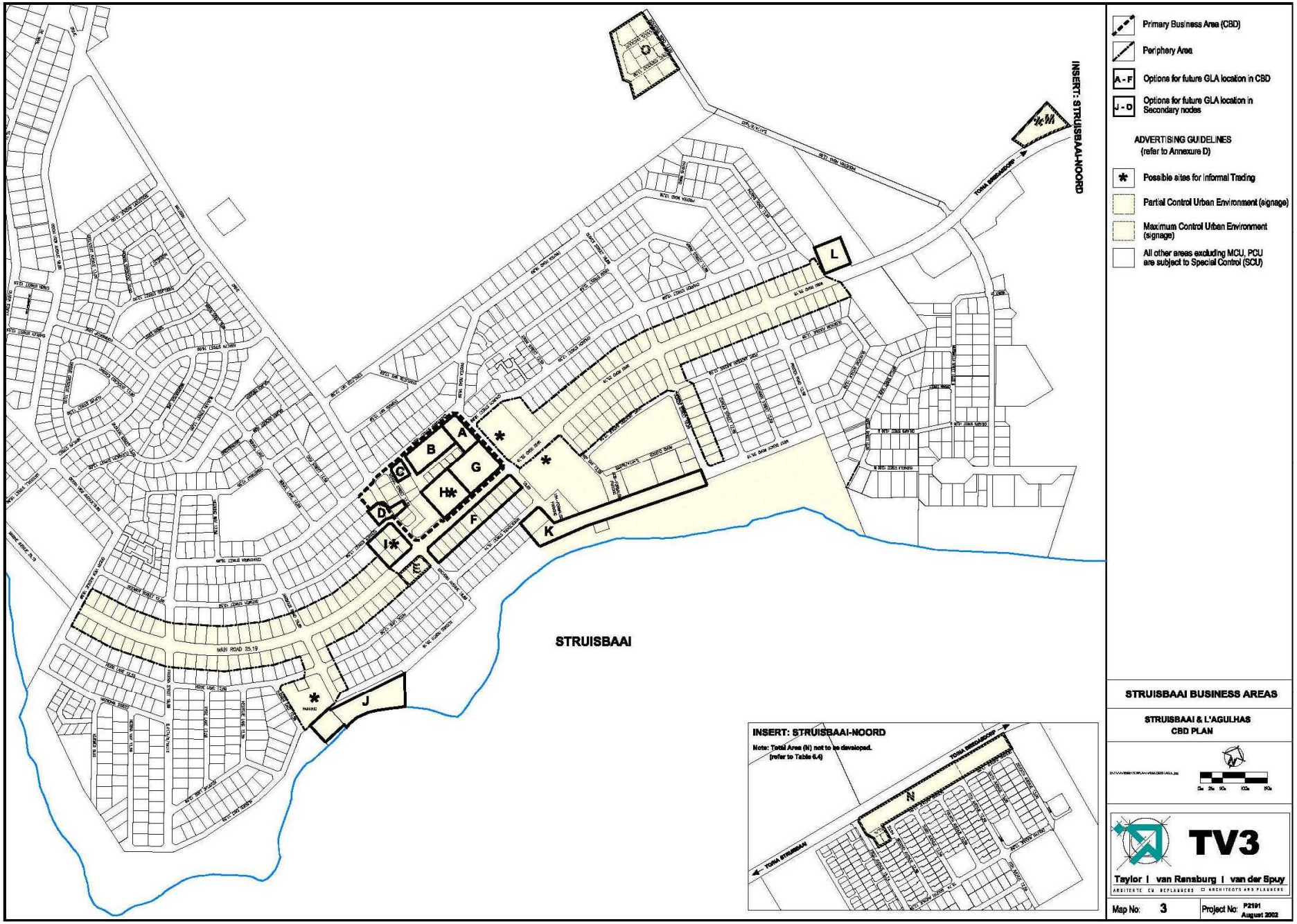



**Figure 2.5.4.1 Struisbaai Business Areas** (source: TV3, 2002)

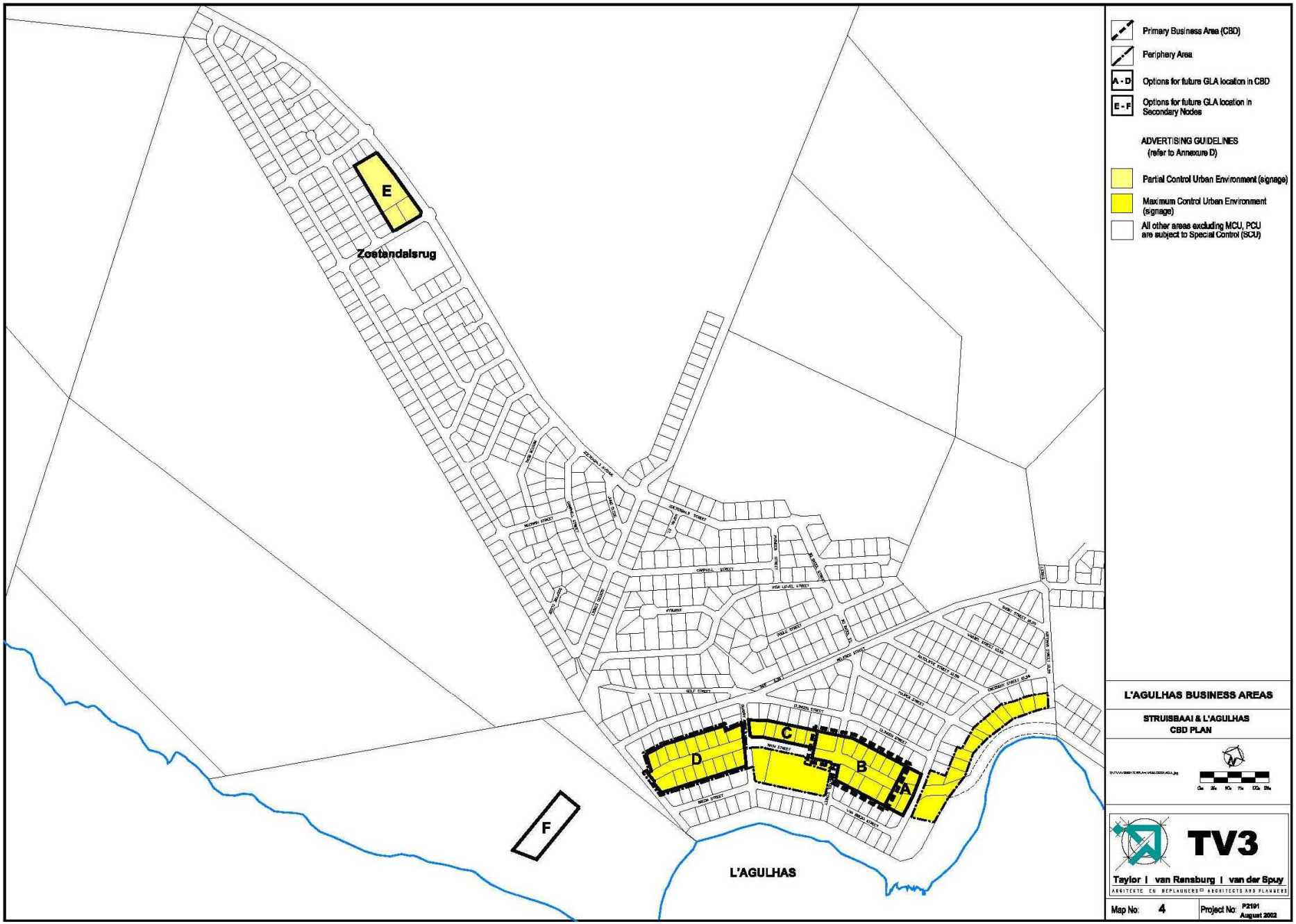



**Figure 2.5.4.2** **L'Agulhas Business Areas** (source: TV3, 2002)

### 2.5.5 Struisbaai Local Structure Plan, 1992

This approved structure plan was prepared in 1991 and makes the following proposals:

- The creation of a CBD;
- Connect the existing business nodes in the long term;
- Optimise the old church buildings as a focus point;
- Provide parking facilities;
- Reserve 6,8ha of land for commercial and office development;
- Existing industrial development is not well located, proposes a better location west of the R319 in front of Hotagterklip;
- Filling Stations to be located on Marine Drive of Lavern Drive or on the intersection (north western corner) of Marine Drive and Protea Way;
- Require 254ha of land for future residential development for erven no smaller than 500m$^2$;
- 30ha west and north of Molshoop is reserved for residential development of which 18ha is to be used for conventional housing;
- No additional school sites are proposed;
- Proposes an exiting vacant site for a caravan park;
- Erf 1250 can be used for accommodation facilities;
- Identifies parking and pedestrian movement areas;
- Can keep the exiting caravan park at Molshoop but new caravan park must make provision for day visitors and accommodation facilities;
- Additional sport ground can be developed at existing tennis courts;
- A golf estate can be developed between Struisbaai and Molshoop;
- Jurisdiction of the harbour to be transferred to the Local Authority;
- The harbour and surrounds should be planned as a precinct; and
- Malvern Avenue should be upgraded
- Investigate an alternative route next to the industrial area for L'Agulhas; and
- Dolphin Avenue must be extended and upgraded as a primary distributor.

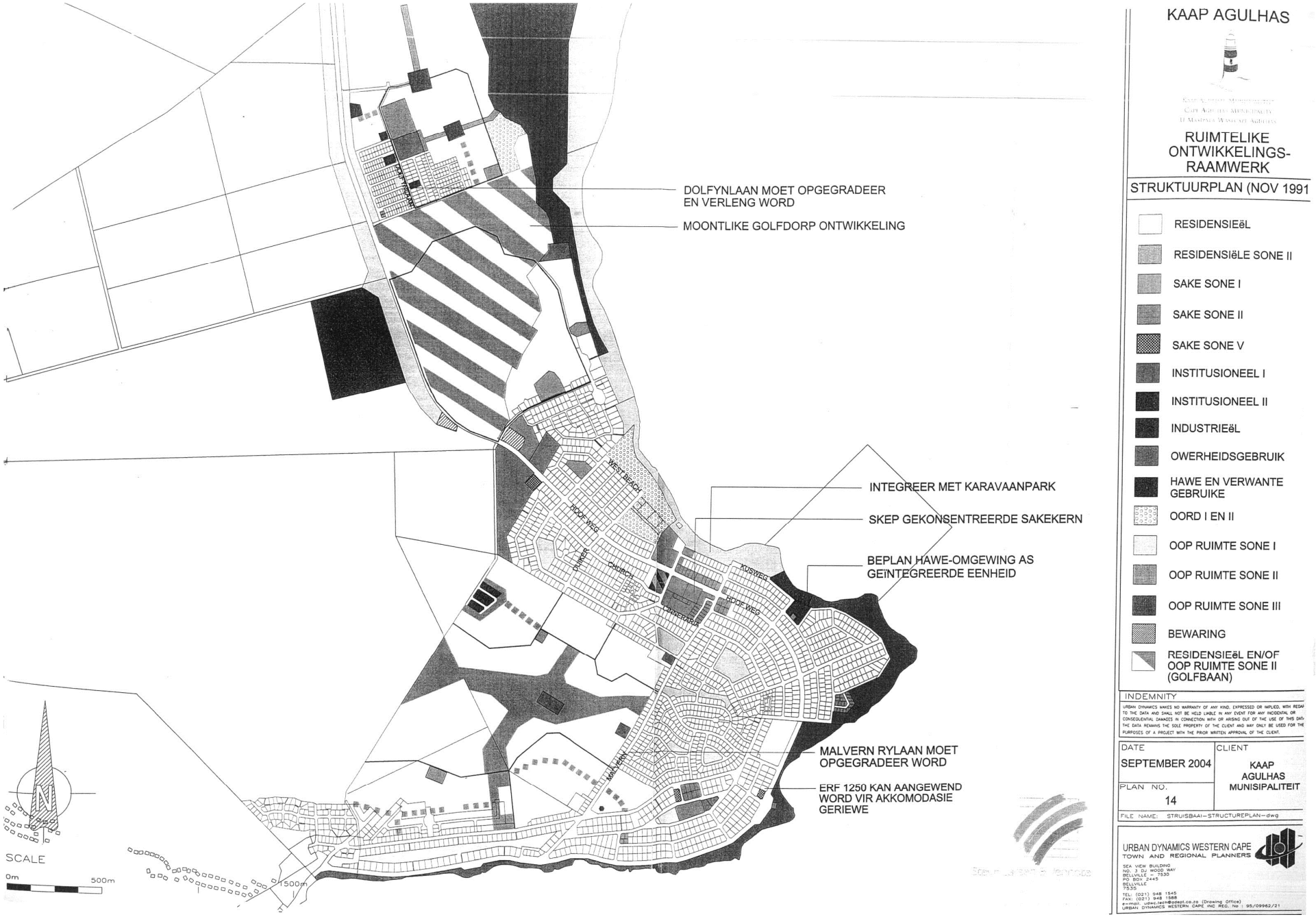



**Figure 2.5.5.1 Struisbaai Local Structure Plan** (source: Urban Dynamics, 2004)

### 2.5.6 L'Agulhas Local Structure Plan, 1992

This approved structure plan was prepared in 1992 and makes the following proposals:

- That the Central Business District (CBD) be extended in northern and southern directions and that erven 114 and 116 be used for parking;
- More chalets are to be developed as holiday accommodation facilities on erven 120 and 201;
- The caravan park be moved to erven 608 and 390 and that the caravan park west of Erf 668 continue to be used for as caravan park;
- Sites be identified for parking sites along with ablution and day recreation facilities.
- Identified a sportsfield site of 1,5ha next to the tennis courts;
- Sewerage be pumped to Struisbaai;
- Identified graveyard at Struisbaai be a regional graveyard;
- In the future and alternative site be identified as a landfill site;
- The coastal strip along Main road and north east of L'Agulhas as well as west of the lighthouse should continue as a nature areas;
- Lighthouse precinct should obtain formal conservation status;
- Parking area to be removed and rehabilitated with natural vegetation;
- Limit transport access to roads;
- 32ha is required for future growth;
- Residential development should be located north and north west of the town;
- No development should be permitted higher than the 45m contour line;
- Portions 4, 17, 20 and 35 of Farm 281 could be developed with conservation as the central theme;
- Portion 21 of Farm 281 should be conserved with limited development.

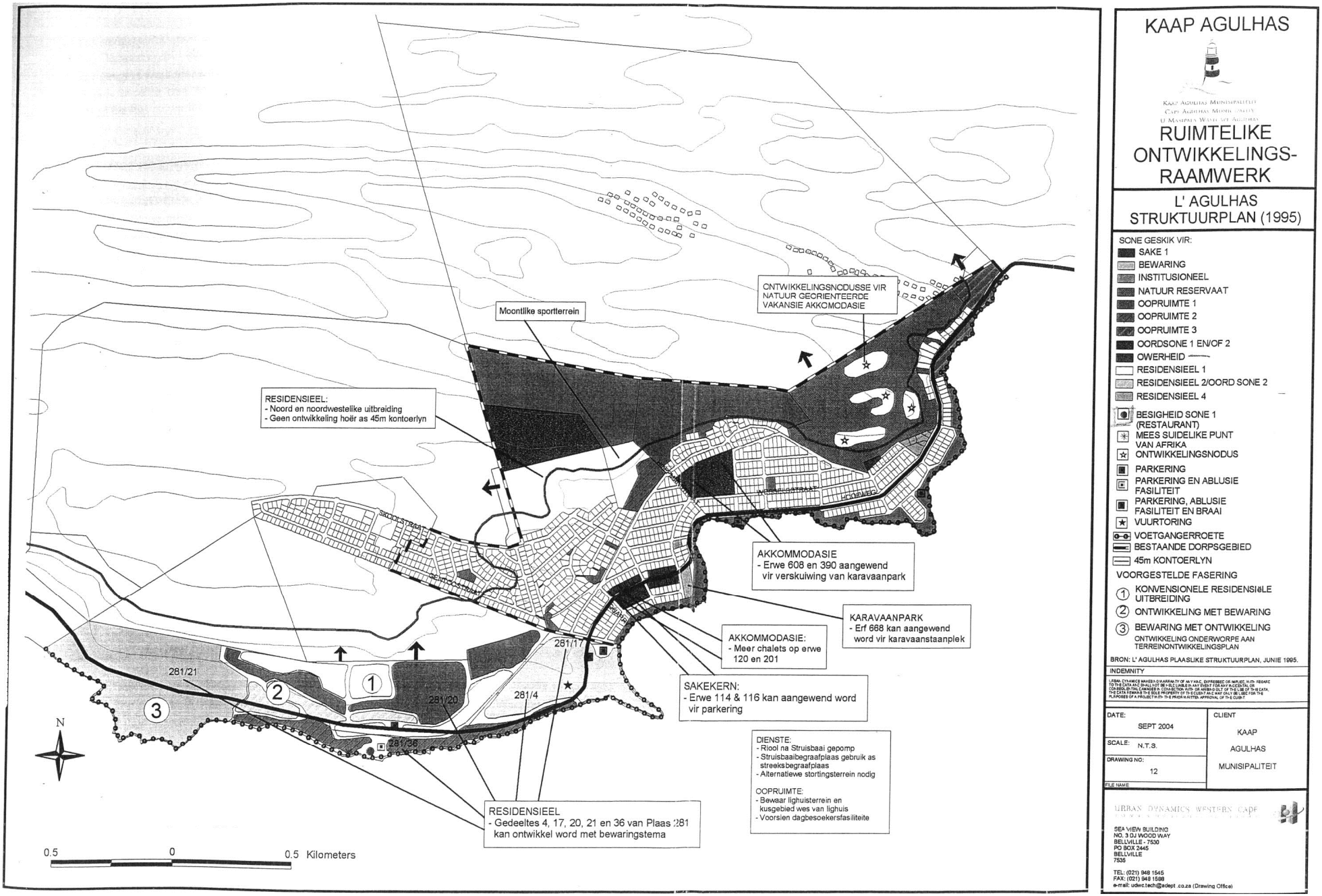



**Figure 2.5.6.1 L'Agulhas Local Structure Plan** (source: Urban Dynamics, 2004)

### 2.5.7 Napier Spatial Development Framework, Volume 2: Development Strategy, October 2002

The SDF aims to achieve the long-term goals for Napier by:

- Increasing the tourism potential of the town which in turn will provide a strong localised economic base;
- Protecting and conservation of existing heritage resources;
- Improving the social services of communities from infrastructure to the quality of the built and natural environments;
- Improving the traffic system by increasing safety and efficiency;
- Protecting natural areas and controlling development within areas of conservation worth.

To achieve these long term goals, the SDF has defined proposals for defining the developable areas, residential development, businesses, community facilities, industrial areas, bulk services provision, Historic Conservation District and the commonage.

#### *2.5.7.1 Developable areas*

By defining the Urban Edge the SDF proposes to exclude areas of conservation value form further future development and protect areas of high scenic value hence defining developable areas.

- *Bodorp Edge*: Defined by the 175m contour line and excludes the steep gradient areas.
- Skoolrand Edge: At the southern boundary of the cemetery and the school site travelling northwest.
- *Nuwerus Edge:* From the southern boundary of the valley, following the 170m contour line to the western boundary.
- *Western Edge:* Defined the centre of the Eland and Klipdrift Rivers.
- *Northern Edge:* From the exiting gravel road linking Klipdale Road with the Truck Road 316.
- *Small Holding Edge:* Southern extension of the existing small holding edge.

Problems are experienced where cadastral surveys have not been updated to ensure that residential erven and road reserves no longer clash, i.e. houses are in the road reserve and vice versa.

#### *2.5.7.2 Residential*

The SDF states that by the year 2012 the required dwelling units could range from 300-700. At a density of 10 units/ha, land required for development is estimated from between 30ha to 70ha. This requirement can be achieved by implementing a density strategy policy (high, medium, low and medium low density development) for Napier. Only selected erven should be re-subdivided for densification. The report also proposes that non-residential land uses be permitted for properties zoned residential to permit home enterprises (arts, crafts and pottery), occupational practises, bed and breakfast, guesthouses, keeping of animals and additional dwellings.

#### *2.5.7.3 Businesses*

The SDF proposes that all business related development be contained within the CBD. By concentrating business development along Sarel Cilliers Street the interaction between people, goods and activities will be promoted. The SDF includes the establishment of a Central Business District (CBD) with a secondary business area (acts as the buffer between the CBD and the residential area) and neighbourhood areas (mixture of businesses in residential areas) as part of the urban design concept. Secondary business areas

#### *2.5.7.4 Community Facilities*

The report has considered the future housing requirements, which will directly influence the increase of the demand of social services.

- *Schools:* No additional schools are required.
- *Health Services:* At present no further clinics are required.
- *Cemeteries:* Extension in the north-eastern direction if approval is granted by DWAF and expanding the cemetery at Napier Secondary School to the south and east.
- *Churches:* To be provided at one per 300 erven.
- *Open spaces:* 10% of developable land should be allocated for POS.

#### *2.5.7.5 Industrial*

Industrial erven along Klipdale road should permit light industrial land uses, businesses services and warehousing.

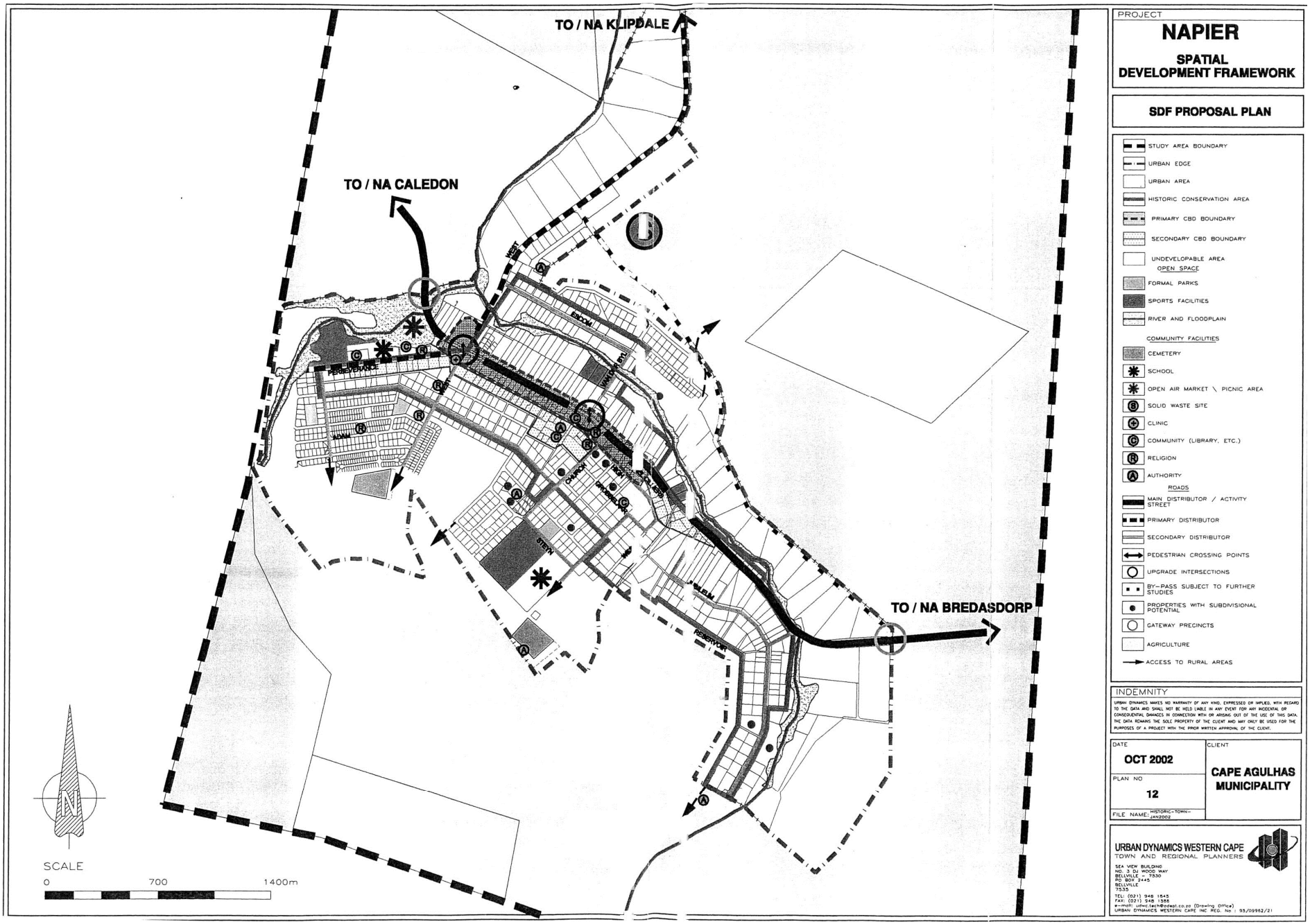



**Figure 2.5.7.1** **Napier Spatial Development Framework** (source: Urban Dynamics, 2002)

### *2.5.7.6 Bulk Services Provision*

- *Water:* A study is required to investigate the storage capacity.
- *Stormwater:* At present, the local authority has prioritised the upgrading of stormwater systems. The SDF proposes a stormwater Management study for Napier.
- *Electricity:* Council should consider replacing overhead powerlines with underground cables in the HCD.
- *Sewerage:* The remaining septic tanks should be upgraded.
- *Solid Waste:* A management plan is required that addresses methods of preventing ground water pollution and the burning of material that causes air pollution.

### *2.5.7.7 Historic Conservation District (HCD)*

The purpose of the proposed HCD is to manage land uses within the urban area and to conserve the historic district. The SDF proposed an overlay zone be approved as per the zoning scheme regulations that will define the development guidelines for the HCD.

### *2.5.7.8 Commonages*

This area provides future developable opportunities for commercial agriculture, removal of invasive vegetation, accommodating bulk infrastructure and agricultural holdings for farmers.

- *Commercial Agriculture:* This should be continued within the urban fringe and the commonage.
- *Environmentally Sensitive Areas:* The SDF proposed the protection of the slopes steeper than 1:10, drainage channels and sensitive vegetation areas.
- *Community and bulk infrastructure:* Reservoirs and dams, powerlines and substations, sewerage works, access roads, shooting ranges and recreation areas in the form of picnics sites and walking trails are proposed for inclusion in the commonage.

## 2.6 ABUTTING SPATIAL DEVELOPMENT FRAMEWORKS

Three local Municipalities abut Cape Agulhas Municipality:

### 2.6.1 THEEWATERSKLOOF SPATIAL DEVELOPMENT FRAMEWORK, SEPTEMBER 2010

The Theewaterskloof Spatial Development Framework was prepared in September 2010.

The policy document proposed for the following vision for the municipality: "To direct development into urban areas and rural locations with opportunity for economic growth and development. The spatial vision is to optimise development opportunities within transport corridors and to exploit tourism and agricultural development within selected locations."

The overarching development concept is based on the following objectives:

- To provide spatial definition to the vision and strategies priorities of the municipality;
- The identification of strategic priority areas for private/public sector investments;
- To establish a spatial framework that will assist the various decision makers with addressing development initiatives;
- Provide definitive direction to developers and private sector initiatives.

A small portion of the Theewaterskloof municipal boundary abuts the Cape Agulhas Municipality along its north western boundary.

The SDF has proposed that this area abutting the Cape Agulhas Municipality be designated as Core 1 and Intensive Agricultural. Core 1 areas are the highest priority areas for conserving biodiversity and natural system.

The Core 1 Spatial Planning Category could permit:

- Low intensity, non-consumptive, nature based recreation activities;
- The sustainable harvesting of natural resources;
- Education and research;
- Conservation management activities.

Land designated for Intensive Agriculture are valuable in respect of food production, maintaining ecosystem services, and protecting heritage assets.

The Intensive Agriculture Planning Category could permit:

- Limited expansion of existing cropping, commercial forestry, orchards and other forms of farming;
- Game-farming, extensive grazing;
- Sustainable harvest of natural resources;
- Farm buildings and structures, accommodation for farmworkers;
- Small-scale, farm-based tourism;
- Farm-based agro-industry and associated infrastructure;
- Farm-based recreation facilities;
- Mining and mineral extraction.

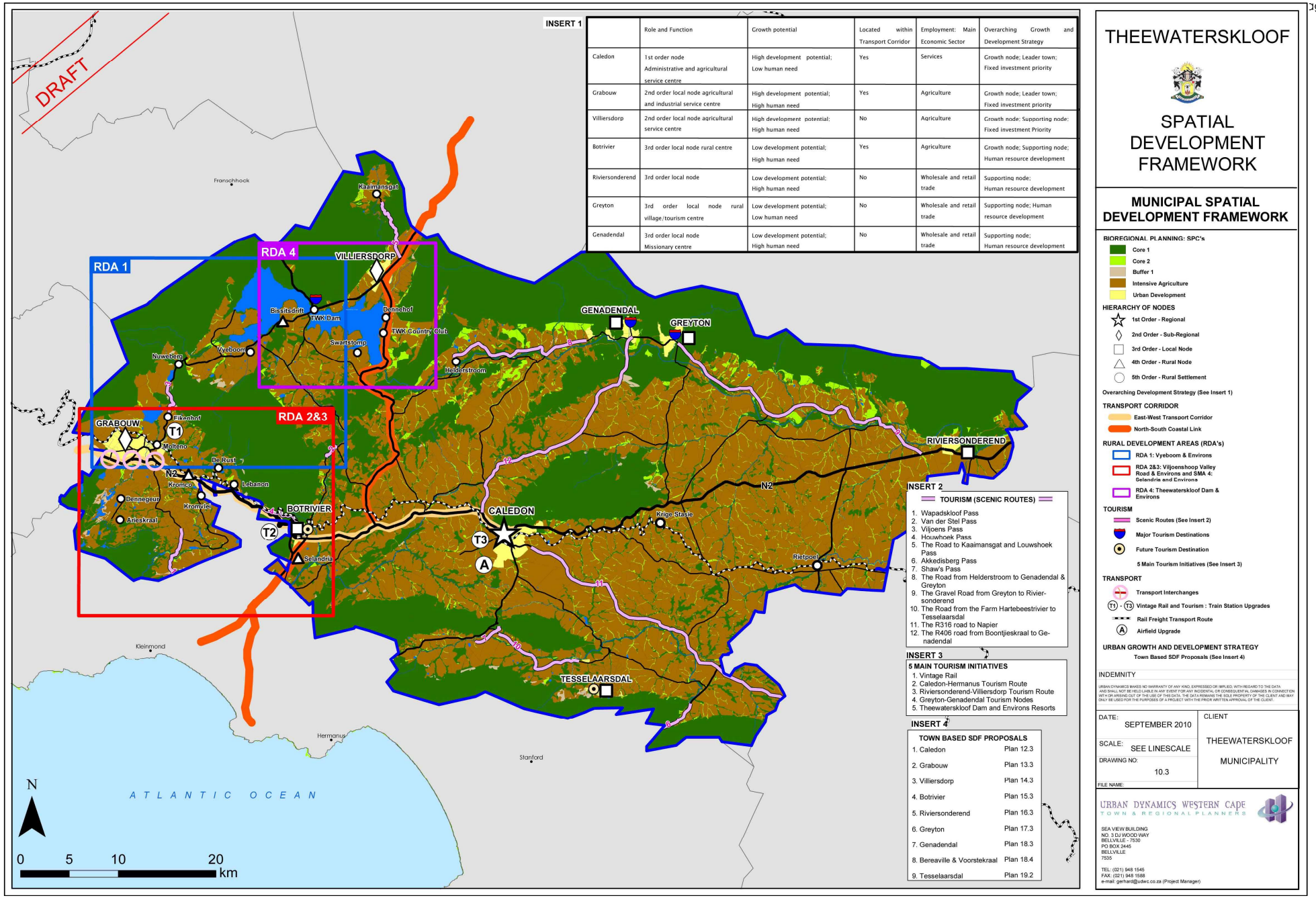



**Figure 2.6.1.1 Theewaterskloof Spatial Development Framework** (source: Urban Dynamics, 2010)

### 2.6.2 SWELLENDAM SPATIAL DEVELOPMENT FRAMEWORK (2008)

The Swellendam Municipality Spatial Development Framework was prepared in October 2008 and noted the following goals:

- implement an effective management system for the protection of biological diversity and ecosystems;
- develop and maintain a strong local economic base in rural areas, by promoting non-consumptive tourism and the role of agriculture in the municipal economy;
- protect and conserve the heritage resources of the area;
- provide an environmentally and economically sustainable bulk service infrastructure and road transport network;
- address the social needs and expectations of all sections of the community;
- promote the conservation and sustainable use of the natural resources;
- ensure that ongoing development pressure and its spatial implications are managed in a sustainable manner in order to protect the unique character of the existing cultural landscape and the place-specific character and form of the existing settlement pattern.

The southern border of the Swellendam Municipality abuts the Cape Agulhas Municipality.

The SDF proposed that this area that abuts the Cape Agulhas Municipality be designated as Core Agriculture and Conservation 2.

Conservation 2 areas area areas with the highest conservation status. They include unique areas, relatively large areas, clustered and/or discrete areas which are irreplaceable in terms of achieving national biodiversity conservation objectives, and/or areas which provide valuable ecosystem services.

Conservation 2 areas may permit:

- Low intensity, non-consumptive nature-based recreation;
- Harvest of natural resources on a sustainable basis, provided that such use is compatible with this area;
- Extensive grazing at an appropriate stocking rate;
- Education and research.

Core Agricultural Areas are largely transformed areas which may contain remnants of Critically Endangered or Endangered natural vegetation, which have value in terms of food production, maintaining ecosystem services, and protecting heritage assets.

Core Agricultural Areas may include:

- Limited expansion of existing cropping, commercial forestry, orchards and other forms of farming;
- Game-farming, extensive grazing;
- Sustainable harvest of natural resources;
- Ecotourism, farm-based tourism;
- Mining and mineral extraction, subject to environmental and specialist botanical assessment.


**Figure 2.6.2.1 Swellendam Spatial Development Framework** (source: Urban Dynamics, 2008)

### 2.6.3 OVERSTRAND SPATIAL DEVELOPMENT FRAMEWORK (2006)

The Overstrand Municipality Spatial Development Framework was prepared in October 2006 and noted the following goals:

- implement an effective management system for the protection of biological diversity and ecosystems;
- develop and maintain a strong local economic base in rural areas, by promoting non-consumptive tourism and the role of agriculture in the municipal economy;
- protect and conserve the heritage resources of the area;
- provide an environmentally and economically sustainable bulk service infrastructure and road transport network
- address the social needs and expectations of all sections of the community;
- promote the conservation and sustainable use of the natural resources; and,
- ensure that ongoing development pressure and its spatial implications are managed in a sustainable manner in order to protect the unique character of the existing cultural landscape and the place-specific character and form of the existing settlement pattern.

A small portion of the eastern border of the Overstrand municipal boundary abuts the Cape Agulhas Municipality.

The SDF proposed that this area that abuts the Cape Agulhas municipal boundary be designated as Conservation – Agriculture Buffer and Core Agriculture.

Conservation – Agriculture Buffer are areas that provide a buffer between the conservation and core agricultural areas. They are representative of ecological corridors, vegetation transition areas and are important for ecosystem goods and services.

Conservation – Agriculture Buffer could permit:

- limited cropssing, orchards and other forms of framing;
- game farming and extensive grazing;
- sustainable harvest of natural resources;
- education and research;
- small scale tourism, nature based recreation and farm based tourism.

Core Agriculture areas may contain remnants of Critically Endangered or Endangered Natural Vegetation, which are valuable in respect of food production, maintaining ecosystem services and protect heritage assets.

Core Agriculture areas may permit:

- limited expansion of existing cropping, commercial forestry, orchards;
- game farming and extensive grazing;
- sustainable harvesting of natural resources;
- ecotourism and farm based tourism; and,
- mining and mineral extraction.

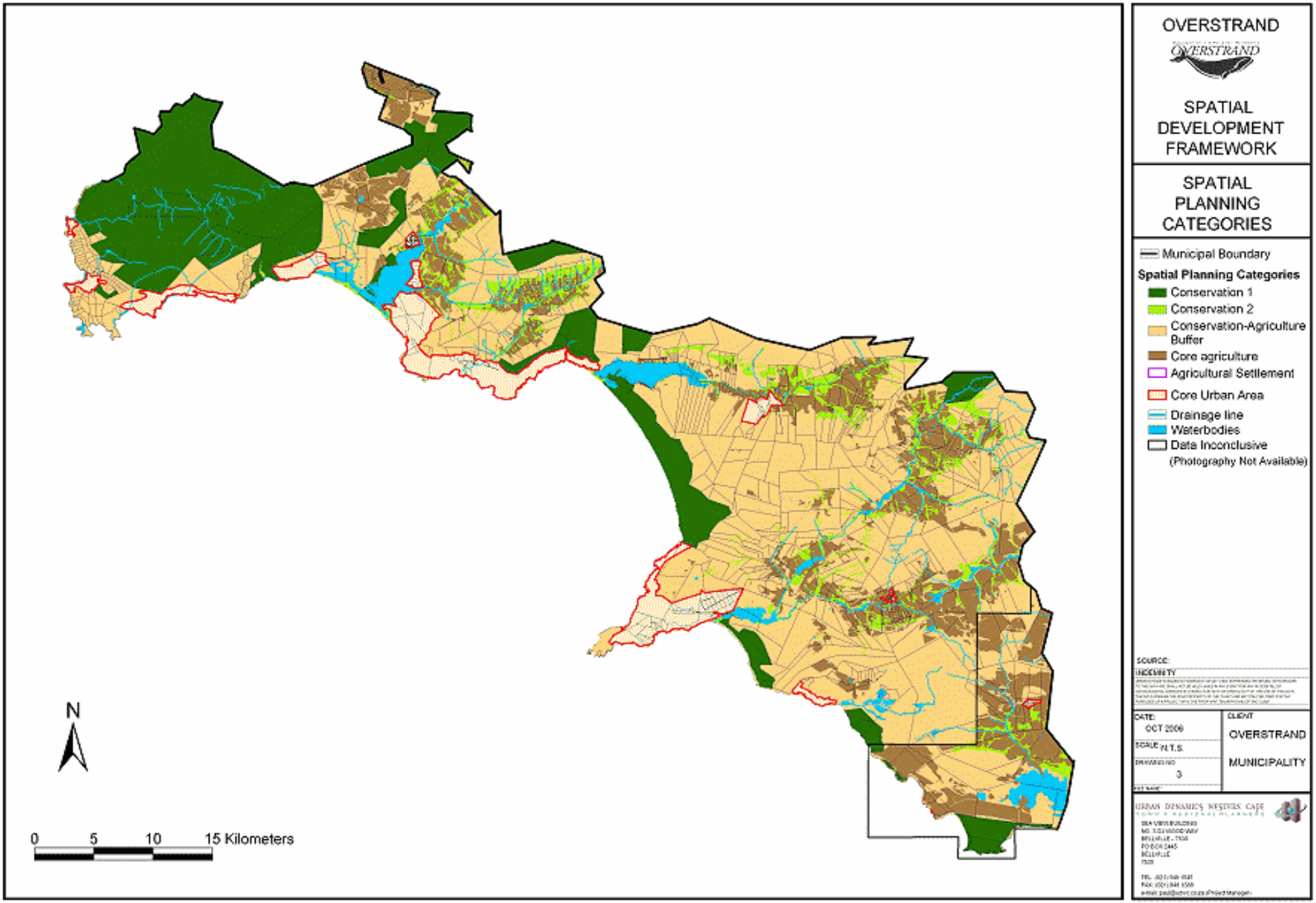



**Figure 2.6.3.1 Overstrand Spatial Development Framework** (source: Urban Dynamics, 2006)

## 2.7 ALIGNMENTS

### Implications for the SDF

| Key linkages and alignments | | Relevant SDF |
|---|---|---|
| with Theewaterskloof | | |
| A | Promote continuous landscape linkage along the Bredasdorp Mountain range with the Babylonstown Mountain Range. | Theewaterskloof / Overstrand |
| B | Promote continuous coastal wilderness and tourism corridors. | Overstrand / Hessequa |
| C | Promote linkage of northern band of Renosterveld islands into a corridor that links through to the Langeberg. | Hessequa |
| D | Promote linkage of eastern band of Renoserveld islands to nearby cluster of CBAs in adjacent Hessequa Municipality | Hessequa |
| E | Investigate viability of this sliver of Swellendam municipality along Breede River south bank and whether theyis area would not be better served by becoming part of CAM. | Swellendam / Hessequa |

The vertical and horizontal alignments between the Cape Agulhas SDF and the other planning policies affecting and affected by this SDF are illustrated on the previous two pages.

The vertical alignment shows the relationship and alignment between the proposals and policies of the Cape Agulhas SDF; and the NSDP; Western Cape Provincial SDF; and the Overberg District SDF and PGDS. The horizontal alignment shows graphically, on Figure 2.7.1 the relationship between the Cape Agulhas SDF and the abutting municipal SDF's.

The main proposals affecting the abutting and overarching mentioned policy instruments are:

- all urban settlements should be restructured according to the principles of walking distance;
- Investigate the establishment of a new agri-village / service node at the junction of the Malgas and De Hoop access road to serve the upgraded facilities at De Hoop and surrounding farms;
- re-establish mixed passenger services on the rail route between Bredasdorp and Cape Town. ;
- protect existing intensive agriculture from demands to convert it to urban development, and biodiversity conservation including ecological river corridors beyond that proposed in this SDF;
- Promote agri-tourism according to provincial guidelines for development outside of the Urban Edge.

This clearly shows that the main policy proposals in the Cape Agulhas SDF are in line with those of the mentioned overarching policy documents.

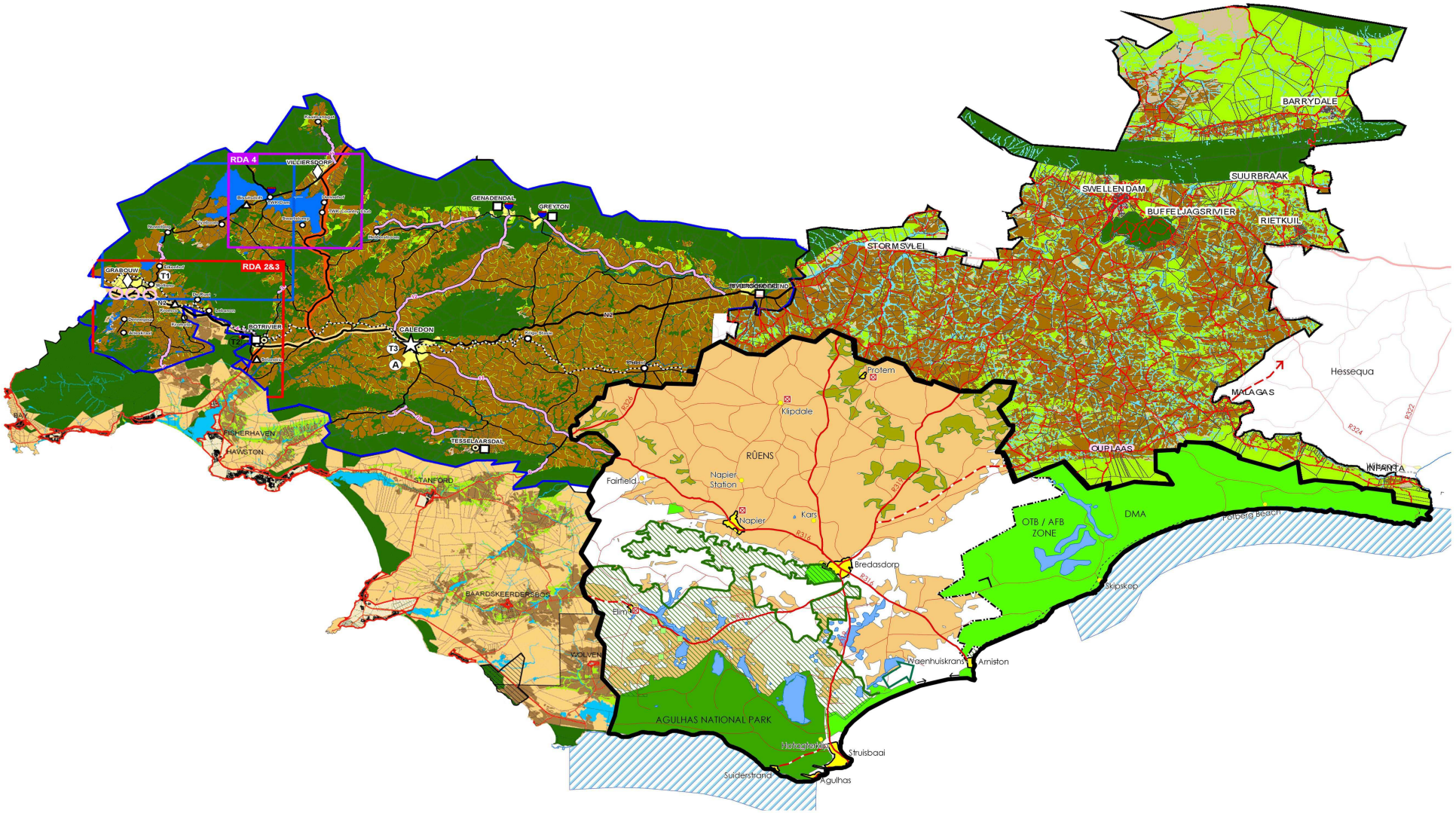



**Figure 2.7.1** **Cape Agulhas SDF showing alignment with surrounding SDFs**

# 3. OVERARCHING PRINCIPLES

The following principles are proposed to guide the SDF proposals for the Municipality as a whole and the settlements within.

## 3.1 BIOREGIONAL PLANNING

Bioregional planning has gained increasing importance in recent years as a methodology for simply and effectively addressing the issue of land use management in regional planning. Four main land use management zones or areas can be identified, see Figure 3.1.1.

### 3.1.1 Core Areas

These are based on the principle that there are important areas of biodiversity and ecosystems services functioning that should be disturbed as little as possible, for example:

- Mountain and river catchment areas;
- Wetlands;
- Sensitive coastlines; and,
- Important or rare areas of biodiversity.

In some instances it may be appropriate to identify ecological corridors which help to link and ensure the viability of separated areas of important biodiversity.

**Core 1** are existing areas of high conservation importance, terrestrial (land), aquatic (rivers, wetlands and estuaries) and marine (beach or rocky headlands) resources of high conservation importance (highly irreplaceable) that must be protected from change or restored to their former level of biodiversity functioning. These areas include:

- Proclaimed national parks and provincial nature reserves that may be added to from time to time, for instance, to complete the network of biodiversity corridors;
- Designated mountain catchment areas and forestry reserves (containing indigenous forest); and,
- Critically Endangered remnants of areas of biodiversity wherever they may occur.

**Core 2** areas are which may not yet exhibit high levels of biodiversity but shall be protected and restored so that this status can be achieved. These areas include river corridors and ecological corridors):

- Ecological Corridors link the Core 1 to create a continuous network that will permit animal and bird movement, seed transport and recreational and environmental educational opportunities such as hiking trails and bird watching. They differ from Core 1 areas in that they contain land that may be currently designated Buffer 1 and Buffer 2, Intensive Agriculture or Urban Development but which should be converted over time to Core Area. Urban Development and Intensive and Extensive Agriculture should be discouraged within these corridors even where these rights already exist using an offset mechanism;
- River Corridors include the main stems of all rivers and their tributaries which are protected by a minimum 30 metre buffer from urban development, and intensive (ploughing) and extensive (grazing) agriculture. River Corridors differ from Core 1 areas in that they currently contain land that may be designated Buffer 1 and Buffer 2, Intensive Agriculture or Urban Development but which should be converted over time to Core Area. Urban Development and Intensive Agriculture should be discouraged within these even corridors where such rights already exist using an offset mechanism.

### 3.1.2 Buffer Areas

Around these core areas are buffer areas of less ecological importance where extensive agriculture and other primary activities such as mining may be carried out according to sustainable principles. There are two types of buffers:

- **Buffer 1** areas contain endangered areas of biodiversity in which land may be converted to other uses if satisfactory offsets are provided;
- **Buffer 2** areas contain vulnerable and least threatened areas of biodiversity and no offsets are necessary in these areas.

All land not suitable for Intensive Agriculture outside Urban Edges shall be designated for Buffer Areas 1 and 2.

### 3.1.3 Intensive Agricultural Areas

Due to the important role that intensive agriculture plays in ensuring food security, providing low skilled employment and its scarcity in SA, which is an arid country, this activity is identified as a separate bio-regional planning zone.

### 3.1.4 Urban Development Areas

Outside of these areas are locations suitable for urban development where a high degree of land transformation can occur but taking care to ensure that the pre-conditions for effective settlement development are met.

The bioregional planning zones provide a high level land use guideline that can successfully be used to inform regional and urban development patterns.

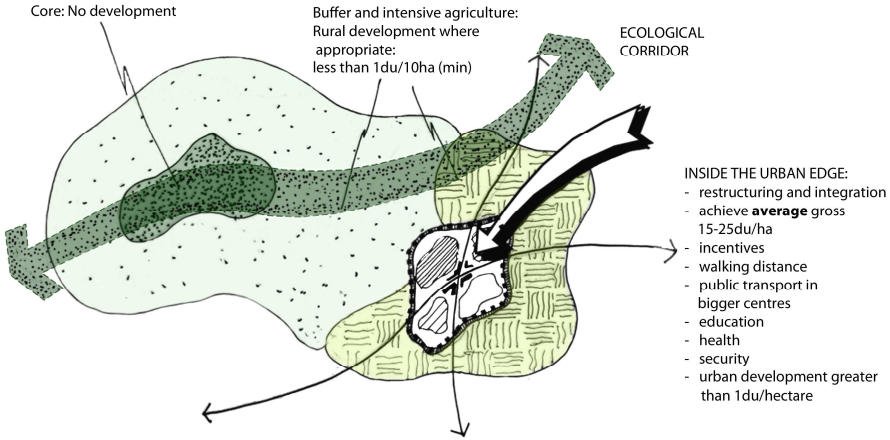



**Figure 3.1.1 Bioregional Planning Zones**

## 3.2 WALKING DISTANCE AS THE PRIMARY MEASURE OF ACCESS

A major component of spatial planning is understanding the relationships between different activities in terms of proximity, access, and time.

The extent to which these relationships are near or far is a major determinant on the efficiency, equity and general quality of life in urban settlements and rural areas. To date, there has been relatively little attention paid to the importance of space in this manner with the result that the current pattern of urban and rural space is generally grossly inefficient. In particular, access tends to be measured in terms of travelling times by private motor vehicles. If activities are considered close to each other it is usually because they are 5 minutes or 10 minutes drive. At 60km per hour 5 or 10 minutes travelling time translates into distances of between 5 and 10 kilometres. This is grossly discriminating and inefficient for commuters in general and the urban poor in particular who do not have access to private vehicle motor vehicles, may be unable to afford public transport, (in many instances public transport is simply not available), or have to walk extremely long distances to fulfil their daily needs.

Therefore, it is proposed that the primary measure of access is always appropriate walking distance.

Although walking distance speeds vary depending on the age, levels of health and the amount of parcels that may be being carried international and local studies have shown that a 20 minute walk is about the maximum that people can travel conveniently before there is a need for motorised, public or private transport.

An average walking distance of 20 minutes is approximately 1000m or 1km, see Figure 3.2.1 and Figure 3.2.2 where this is applied to Bredasdorp.

So, for the purposes of this SDF access, i.e. whether activities are acceptably near or far from one another, will be measured in terms of convenient walking distance.

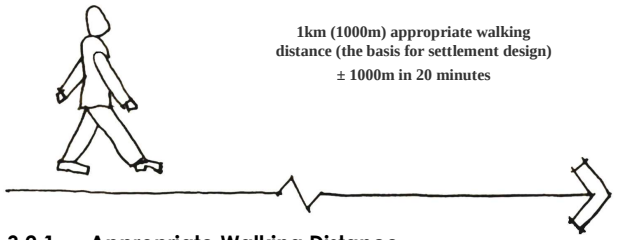



**Figure 3.2.1 Appropriate Walking Distance**

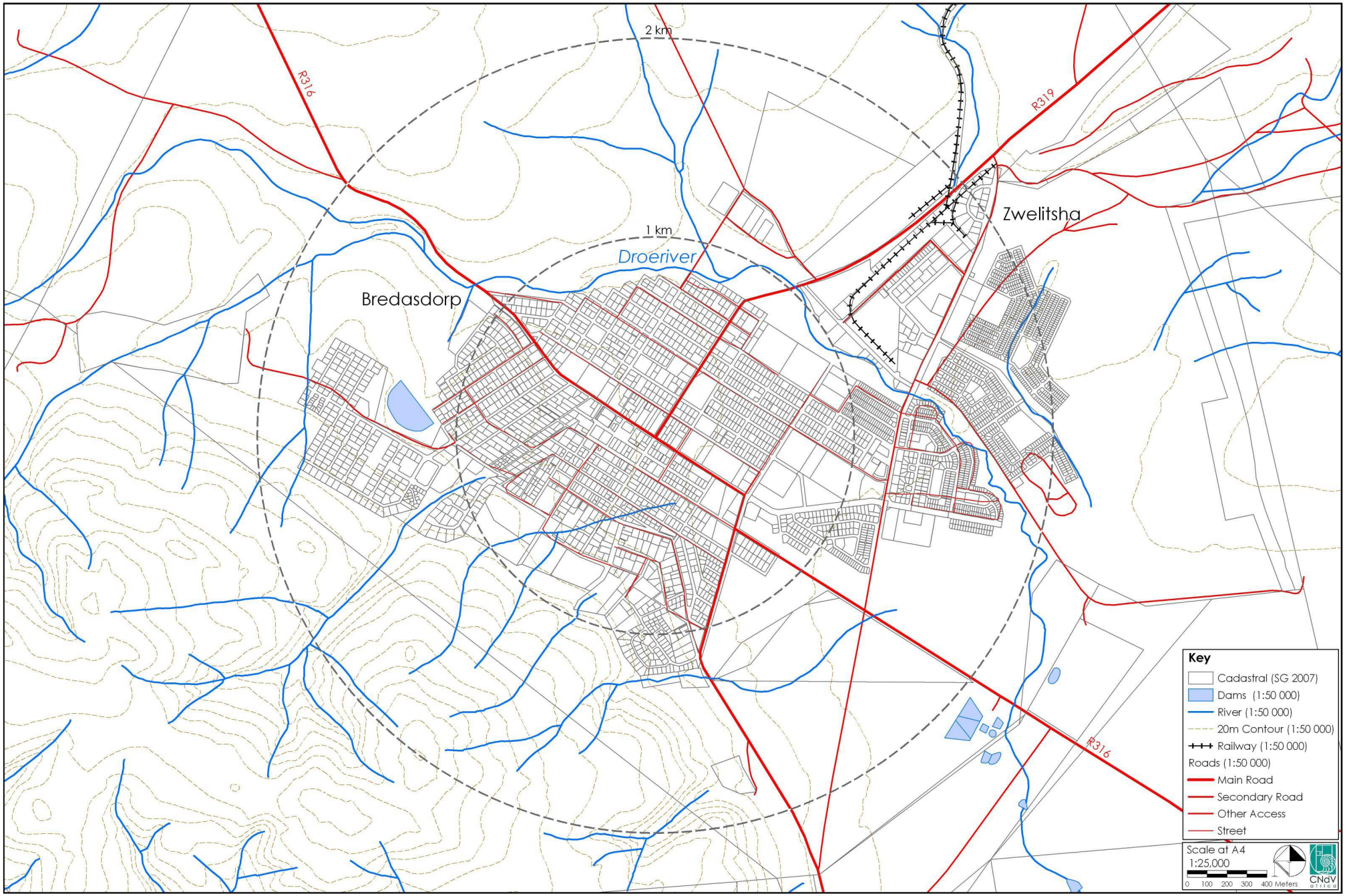



**Figure 3.2.2 Walking Distance Circles applied to Bredasdorp**

## 3.3 INTEGRATION OF URBAN ACTIVITIES

If walking distance is taken as the primary measure for access and convenience it can be seen that it will have a major transformational and restructuring impact on urban settlements particularly if the following principle is also fulfilled.

At least 50% of those activities found within an urban area should be within walking distance of where people live, see Figure 3.3.1.

At present distances are often large, particularly for people living in marginalised areas and public transport generally only serves residential place to employment trips and not all the other activities in which communities engage.

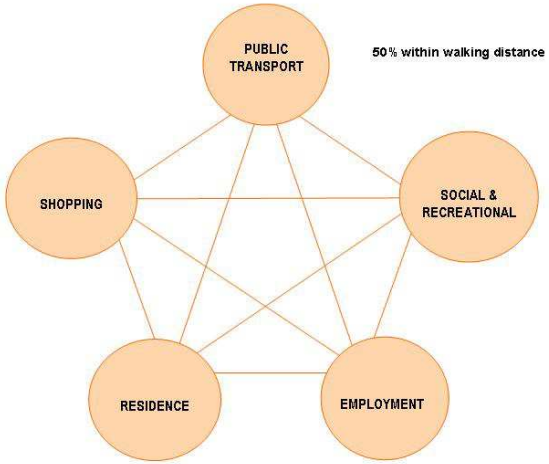



**Figure 3.3.1 Integration of Urban Activities**

## 3.4 SOCIO-ECONOMIC INTEGRATION

The complete socio-economic cross-section of a community should be sensitively located within easy access, i.e. within a 1km radius from an urban centre or sub-centre. This does not necessarily always mean that the lowest income housing should be in the most visible locations but this should still be within easy walking distance of urban opportunities, see Figure 3.4.1. This pattern should be according to the principle of the socio-economic gradient, see box.

***The principle of a Socio-Economic Gradient:***
This principle acknowledges that people of different levels of income and social kinship ties can live far closer to one another than is the case in most urban settlements in South Africa. However, care should be taken to ensure that there are small differences rather than large jumps between different sectors of a community abutting one another, hence the concept of "gradient".

This is a considerable departure from the current layout of most settlements where the complete range of socio-economic groupings is only found over distances of between 5 to 10km and even further in some large towns and cities.

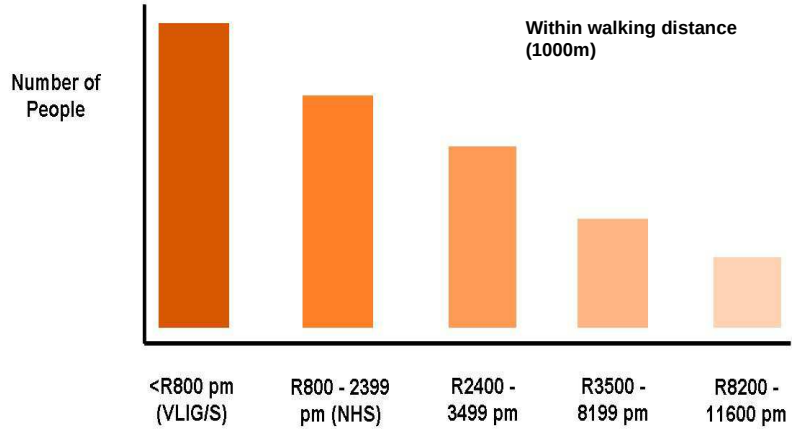



**Figure 3.4.1 Socio-economic Integration**

However, the process of socio-economic integration still needs to be informed by current realities facing South African socio-economic conditions. These include:

- the resistance that often manifests itself in for form of objections, appeals and court action as a result of the NIMBY syndrome (**n**ot **i**n **m**y **b**ack**y**ard), when it comes to integrating housing particularly when lower income or subsidy housing is proposed near middle income areas;
- the conservative nature of South African banks, particularly when it comes to property loan finance and the fact that bank valuers will downgrade property values if informal settlements or low income houses are near middle and high income urban development.

Therefore, there is a need to acknowledge a further principle in this regard. This principle recognises that communities with very large gaps in levels of living abutting one another can create considerable resistance and objections.

**The principle of the Socio-economic Gradient recognises that where there is a relatively small difference in levels of living and property prices between different communities it is generally possible to achieve a high level of integration.**

If this principle is applied sensitively, it is still possible to have a complete range of income groups living within a 1km radius of each other, see Figure 3.4.2.

If carefully done, this can result in high levels of urban efficiency and access particularly for the urban poor. For example, it could become possible for domestic workers and labourers to walk to their places of employment rather than having to take a number of long transport trips, often involving several changes in mode, in order to commute between work and home.

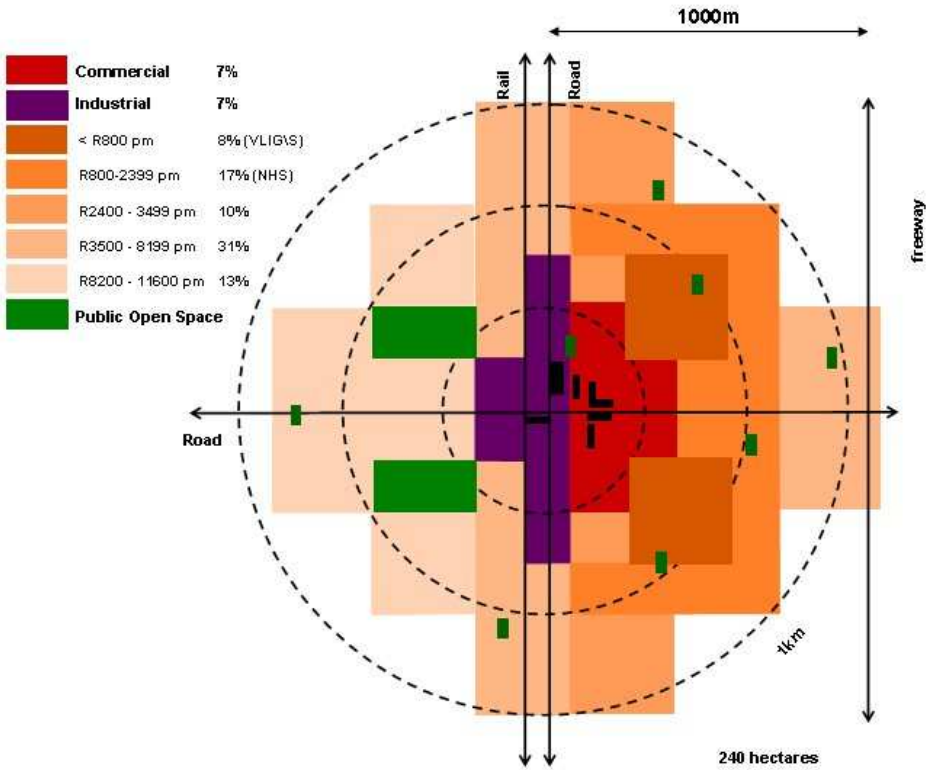



**Figure 3.4.2 Model of Socio-economic Integration**

Figure 3.4.3 shows the recent example of integration in the development of the Marconi Beam settlement. Here, a low income housing subsidy scheme is situated adjacent to a middle income housing scheme across the road from a high income housing area where luxury homes have magnificent views of the sea.

The low income and high income housing areas are approximately 700 metres apart. The major routes in the settlement are lined with private sector driven commercial development and abut a thriving industrial area.

This project is approximately 10 years old and there is no sign that the property values of the various urban development components have been negatively affected by the nearby location of the low and middle income housing.


**Figure 3.4.3 Marconi Beam, Milnerton, Cape Town**

## 3.5 DENSIFICATION AND THE URBAN EDGE

Achieving a settlement pattern that is largely based on walking distance and socio-economic and functional integration requires, in most cases, a fundamental adjustment to the land use patterns within urban settlements. This is because, compounded by the separated land use pattern, the population density of most settlements is too low for viable thresholds to provide sufficient support for public transport services, small businesses and community facilities, and the creation of an urban "vibe" that make settlements attractive, convenient and pleasant places to live in.

Therefore, there is a need for mechanisms to address these challenges.

### 3.5.1 Densification Plan

There are two main aspects to this challenge. The first is to promote densification whereby, according to a well thought out plan that takes into account environmental factors such as biodiversity and the water quality and quantity of river systems, public open space requirements and areas for economic activity, the densities of a settlement are increased.

In most South African settlements urban densities need to double.

Although the key relationship is population density, from an urban management point of view, densification is most easily managed through measuring dwelling units. There is a close relationship between population density and dwelling unit density, the number of dwelling units per hectare.

### 3.5.2 The Urban Edge

An important device to assist with the integration of an urban settlement's land use pattern and to increase its densities is the Urban Edge. An Urban Edge can assist to encourage inward growth of a settlement in order to achieve sustainable internal densities. An Urban Edge also plays an important role in protecting important agricultural, scenic, and biodiversity land resources in its immediate hinterland.

Traditionally Urban Edges in South African SDF's have tended to be located where the current low density urban growth trends can continue unchecked for another 10 to 20 years. This has led to numerous examples of urban sprawl with the associated urban management problems of increasingly far flung areas that are difficult and expensive to service as well as loss of important agricultural, scenic and land for biodiversity.

This pattern can be likened to a "doughnut" whereby there is an increasing move of low income, middle income and high income housing as well as industrial and office estates and regional shopping centres to the periphery of settlements; see Figure 3.5.1.1.

The antidote to this process is the "cupcake", whereby the outward growth of an urban settlement is constrained while urban restructuring and densification occurs within its interior.

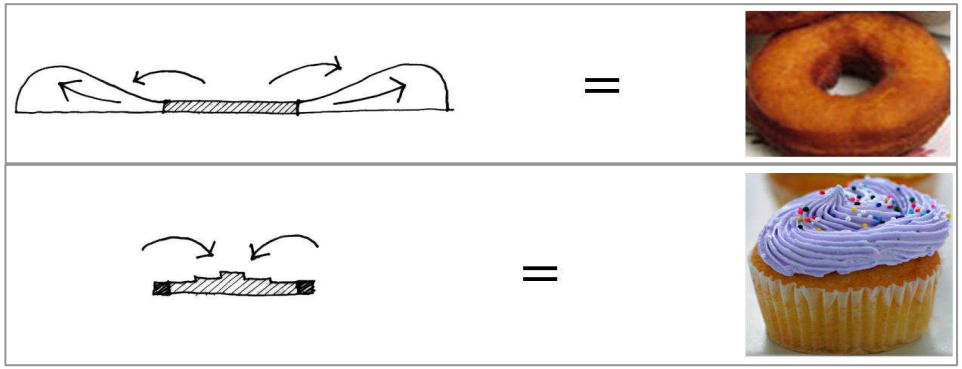


**Figure 3.5.1.1 From "Doughnut to Cupcake"**

However, it is important that densification does not occur willy-nilly but supports an overall plan and restructuring concept for the settlement.

## 3.6 PATTERN OF Ddensification

Research around the world has found that the minimum gross density at which urban settlements begin to achieve acceptable levels of performance, i.e. convenient public transport services, viable business thresholds, strong support of public facilities and supportive social environments occurs at an average of 25du/ha.

The word "average" must be stressed because it could well be that there are appropriately low densities on the urban periphery, forming an interface on the urban fringe, and much higher densities in the highly accessible cores of the settlement, see Figure 3.6.1.1.

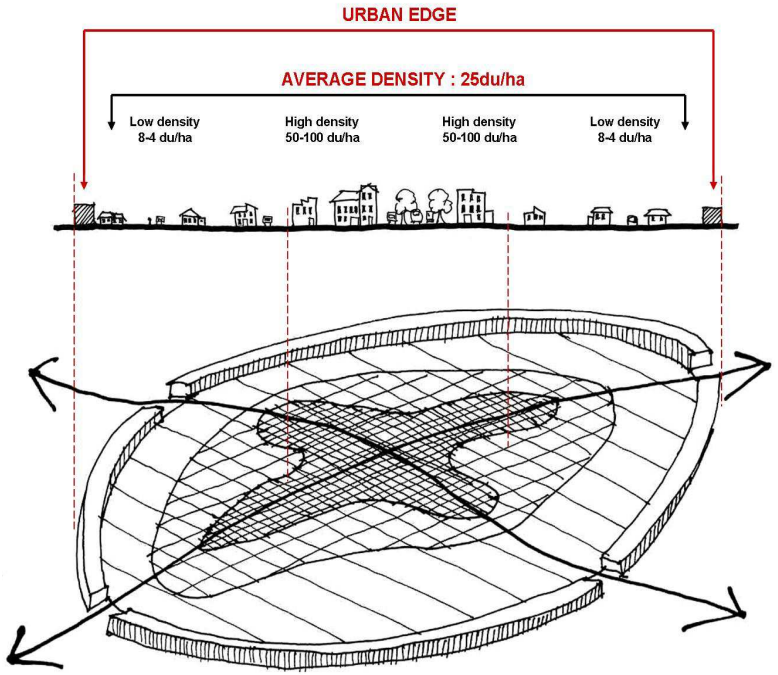



**Figure 3.6.1.1 Establishing an Urban Edge**

The implications of this pattern can be understood when it is realised that low income housing layouts currently being developed at about 50-60du/ha gross, should be located in the inner, more accessible parts of settlements instead of on the urban fringe which is where they are generally being located at present.

## 3.7 THE INTERFACE

### 3.7.1 Langebaan RDP Housing Scheme

Figure 3.7.1.1 shows how a sensitively designed low income housing scheme in Langebaan is located in the centre of the town immediately abutting a high income golf estate, currently under construction.

**Figure 3.7.1.1 Langebaan RDP Housing Scheme**

### 3.7.2 Pelican Park Housing Project

The residential areas comprise a number of superblocks that will perform as distinct neighbourhoods within their own right, thereby helping to create the sense of a smaller and more intimate community often missing in large mass housing schemes, particularly if they have significant BNG components.

The block edges are important as they define the larger movement and circulation pattern of the project, frame public spaces such as the landscaped kick-about axes and the squares. They also help to make the scheme easy to read indicating which areas are largely private for residential family life and where the more public and intense activities, community facilities, public transport access, shops and markets are to be found.

This clarifies the logic of the locations of the scheme's various housing markets and the interface boundaries and corridors between them. Thus:

- Market related housing is found on the highest value parts of the site facing;
- Single storey, single dwelling GAP housing forms the interface zones between the existing suburbs;
- Two types of GAP housing: either double storey, single, semi-detached and row freehold, or three storey sectional title line the main access corridors;
- BNG housing; single dwelling or semi-detached housing, either one or two stories, depending whether it is located along main routes and faces onto public open space areas (double storey) or is located elsewhere (single storey) in the middle of the site, conveniently located near the main shopping and community amenities but away from the interfaces with the existing suburbs;
- Mixed use housing, which has the potential to accommodate small scale business depending on market take-up and is designed in a double storey GAP configuration, occupies the strategic strip of land along the service road.

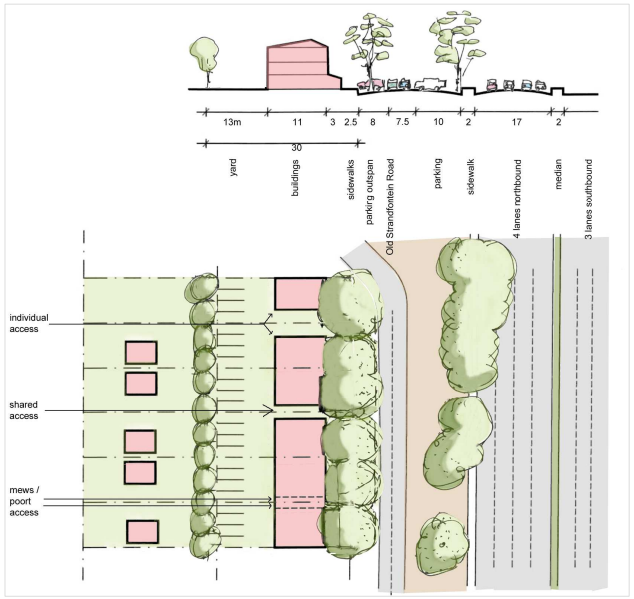



**Figure 3.7.2.1 Pelican Park Plan and Section**

**Figure 3.7.2.2 Pelican Park Street View**

**Figure 3.7.2.3 Pelican Park Section of Site Development Plan and 3D Perspective**

### 3.7.3 Imizamo Yethu Housing Project

Figure 3.7.3.1 shows the interface plots proposed for Imizamo Yethu which consisted of:

- 7.5m x 20m deep plots containing parking bays configured for either social or lower middle income housing;
- 10m rear building line to be enforced to conserve existing trees or can be replanted with new appropriate trees;

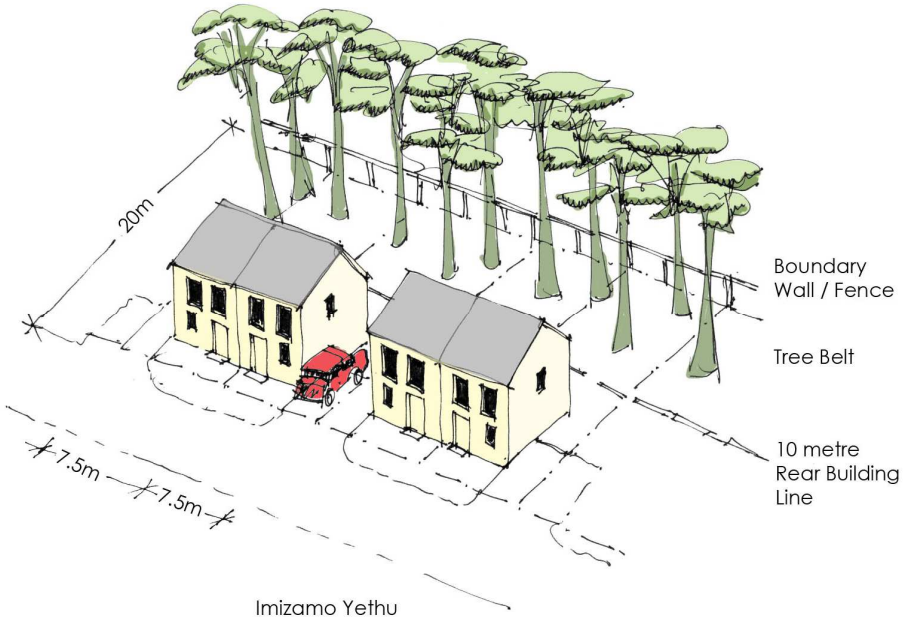



**Figure 3.7.3.1 Imizamo Yethu Proposed Interface Plots**

## 3.8 DISCOURAGE PAVILLION STYLE SINGLE DWELLINGS

This implies that the following must be encouraged in areas targeted for densification:

- a wider socio-economic range among residents. This will normally imply finding opportunities for social/middle income housing;
- employment, shopping and recreational activities at least 50% are accessible to residents on foot;
- a range of high quality and functional open spaces that accommodate passive recreation, kick-abouts and play parks, ornamental and indigenous gardens, tree planting including woodlots and fruit trees and horticulture (food gardens); and,
- urban development whose height, massing, scale and appearance should generally be in keeping with the sense of place of the area.

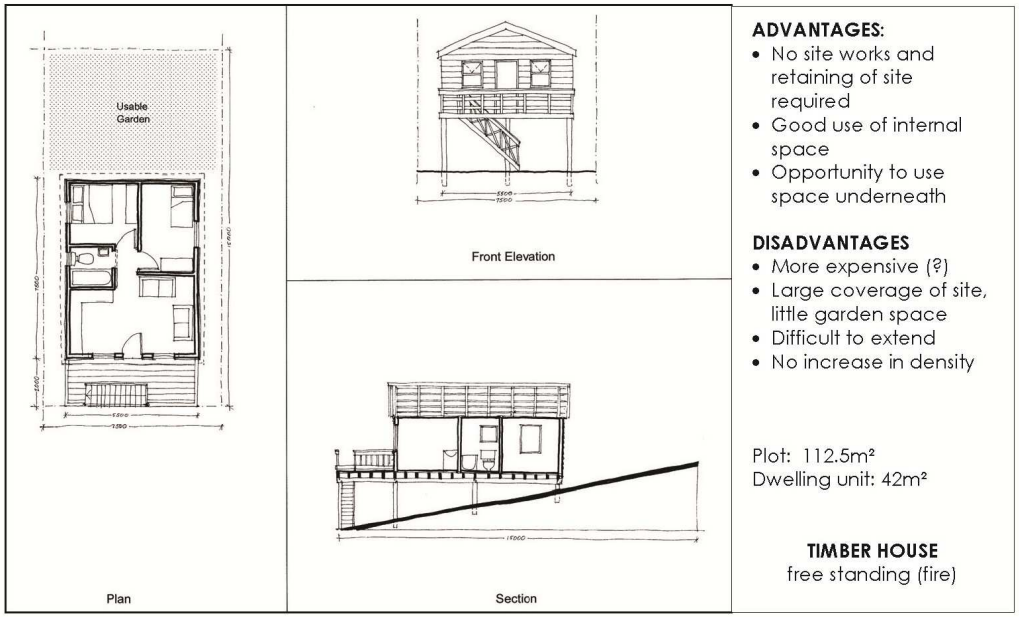
To accommodate an increase in unit numbers it will be necessary that new housing is built in a minimum of a semi-detached double storey configuration, see Figure 3.8.1. In other instances it will be necessary to build three to four storey apartment blocks.

Tenure in all of these configurations can be freehold sectional title or leasehold (rent). Although not common in South Africa it is possible to have three to four storey terrace housing with semi-basement garaging and a back garden on a freehold plot.

2-4 storey housing can also be combined with ground floor and retail if necessary.

It is essential that such housing is developed according to an overall urban design master plan that takes into account, among others, the following:

- reinforcing major activity routes with higher densities and heights;
- protecting the privacy and tranquility of lower density areas away from major routes;
- privacy and overlooking, especially between newer and older buildings;
- building front and side setbacks, stoeps and verandahs must also be carefully looked at. In most cases the single dwelling pavilion style "ziggurat" like setbacks that characterize most of the province's zoning schemes will be unsuitable. However, rather than attempting to revise the zoning scheme conditions which are entrenched as real rights a kit of standard departures that can provide the appropriate urban design quality should be developed.

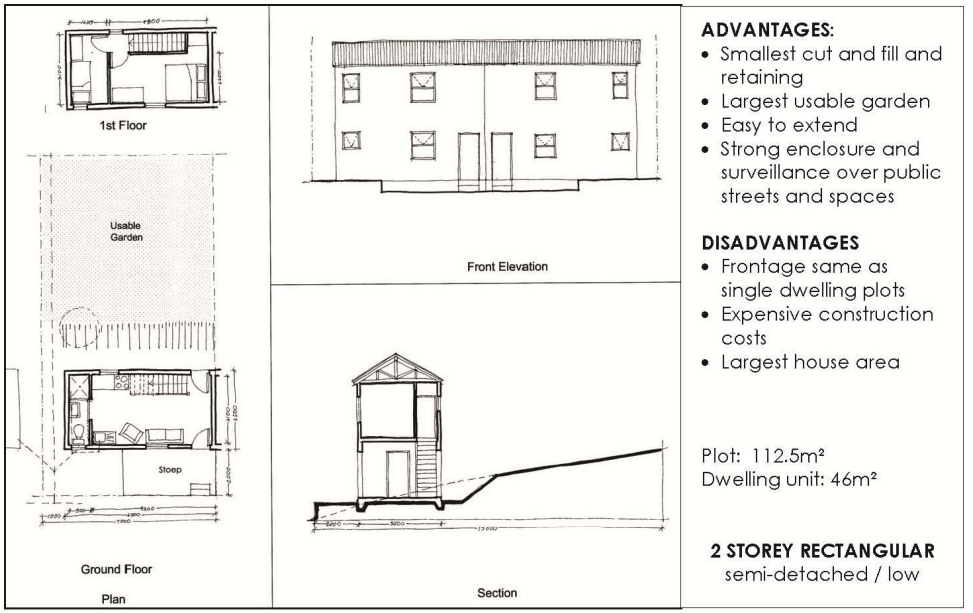



**ADVANTAGES:**
- No site works and retaining of site required
- Good use of internal space
- Opportunity to use space underneath

**DISADVANTAGES**
- More expensive (?)
- Large coverage of site, little garden space
- Difficult to extend
- No increase in density

Plot: 112.5m²
Dwelling unit: 42m²

**TIMBER HOUSE**
free standing (fire)

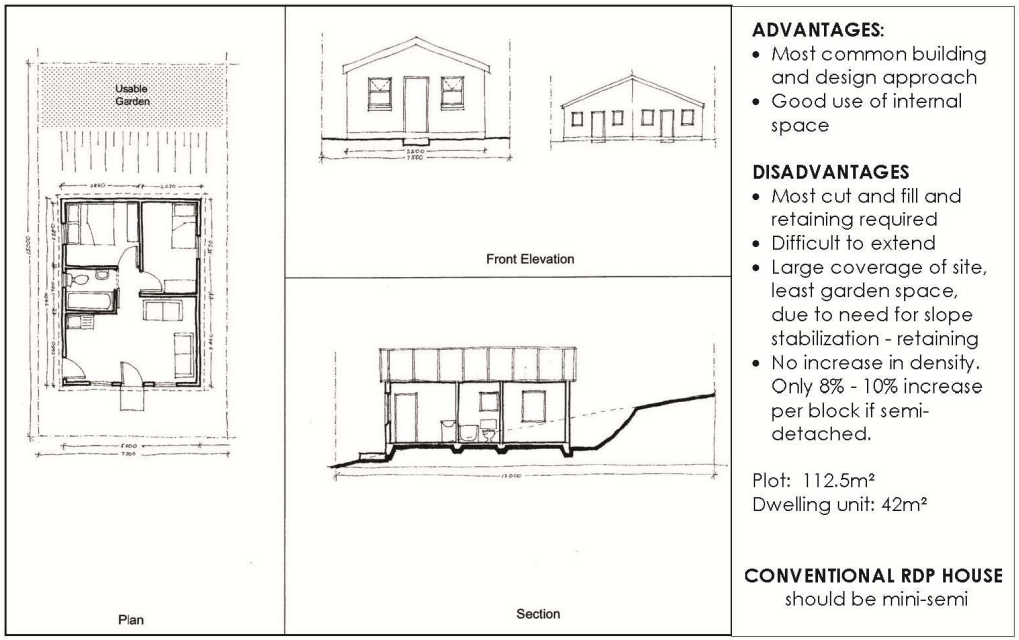



**ADVANTAGES:**
- Smallest cut and fill and retaining
- Largest usable garden
- Easy to extend
- Strong enclosure and surveillance over public streets and spaces

**DISADVANTAGES**
- Frontage same as single dwelling plots
- Expensive construction costs
- Largest house area

Plot: 112.5m²
Dwelling unit: 46m²

**2 STOREY RECTANGULAR**
semi-detached / low

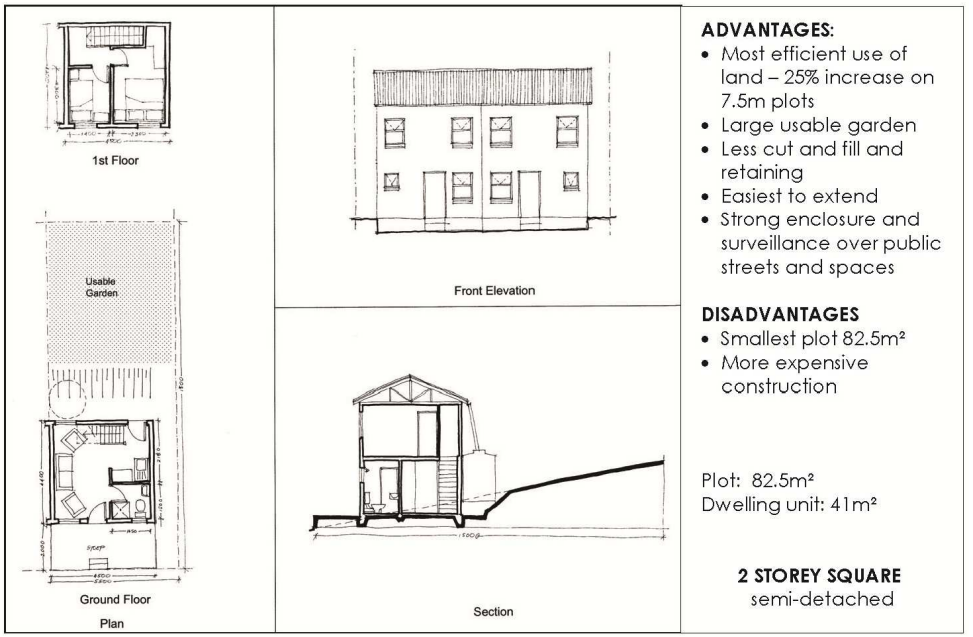



**ADVANTAGES:**
- Most common building and design approach
- Good use of internal space

**DISADVANTAGES**
- Most cut and fill and retaining required
- Difficult to extend
- Large coverage of site, least garden space, due to need for slope stabilization - retaining
- No increase in density. Only 8% - 10% increase per block if semi-detached.

Plot: 112.5m²
Dwelling unit: 42m²

**CONVENTIONAL RDP HOUSE**
should be mini-semi




**ADVANTAGES:**
- Most efficient use of land – 25% increase on 7.5m plots
- Large usable garden
- Less cut and fill and retaining
- Easiest to extend
- Strong enclosure and surveillance over public streets and spaces

**DISADVANTAGES**
- Smallest plot 82.5m²
- More expensive construction

Plot: 82.5m²
Dwelling unit: 41m²

**2 STOREY SQUARE**
semi-detached

**Figure 3.8.1 Examples of Single and Double Storey Housing :** Single dwellings to be discouraged. Semi-detached row and apartment housing to be promoted in all sectors of the market.

## 3.9 A NEW APPROACH TO ARTERIAL ROAD CROSS-SECTIONS

Often, limited access arterial roads in South African cities and towns carry some of the highest volumes of private and public motor vehicle traffic but have the lowest densities or urban development alongside. This is partially due to road access management conditions that seek to minimize direct access onto mobility routes and encourage abutting buildings to turn their back on such roads.

This has the effect of visually sterilizing the road corridor as well as destroying the potential of passing traffic to support economic activity and, thereby, create jobs.

One method to both protect the limited access mobility function of such routes as well as permit development alongside is to split the cross-section of the road between access and mobility sections, see Figure 3.9.1. Such a cross-section can carry high levels of abutting urban development, ideally in a mixed-use configuration.

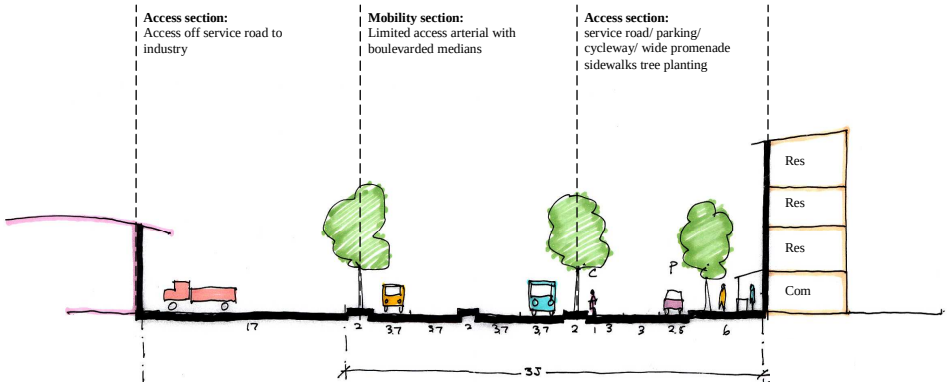



**Figure 3.9.1 Mobility/access cross section**

## 3.10 DENSIFY ALONG MAJOR ROUTES

The major routes in a settlement carry the largest amount of traffic, whether in private, public or non-motorised modes. Thus, their potential for maximizing urban opportunities is greater than minor roads. This implies that to maximize the economic advantages of these routes they should have as many people working and living alongside them as possible, see Figure 3.10.1. This also provides a pattern for predictability and consistency whereby erven abutting major routes can be earmarked for densification whereas erven within residential blocks can maintain their quiet, low density ambience. (Note: ideally this principle should **not** be applied along freeways or national routes as they are too dangerous, noisy and polluted.)

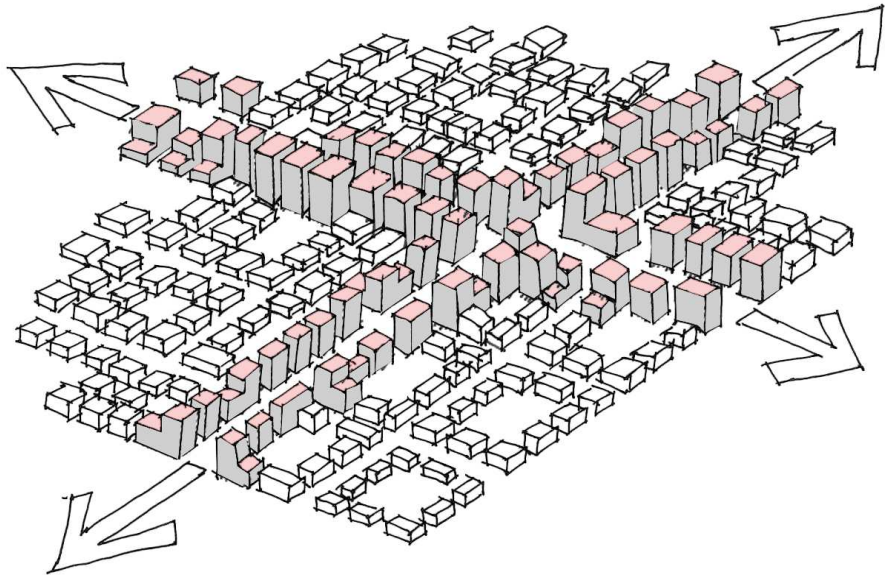


**Figure 3.10.1 Densification along Major Routes**

## 3.11 DENSIFY VACANT AND UNDER-UTILISED AREAS

Thus, land that is either vacant or has low density development not of heritage value provides good opportunities for densification for either public or private sector projects. Many poorly designed public open spaces fringed by the backyards of abutting houses and which are often unsafe as a result offer potential in this regard, see Figure 3.11.1.

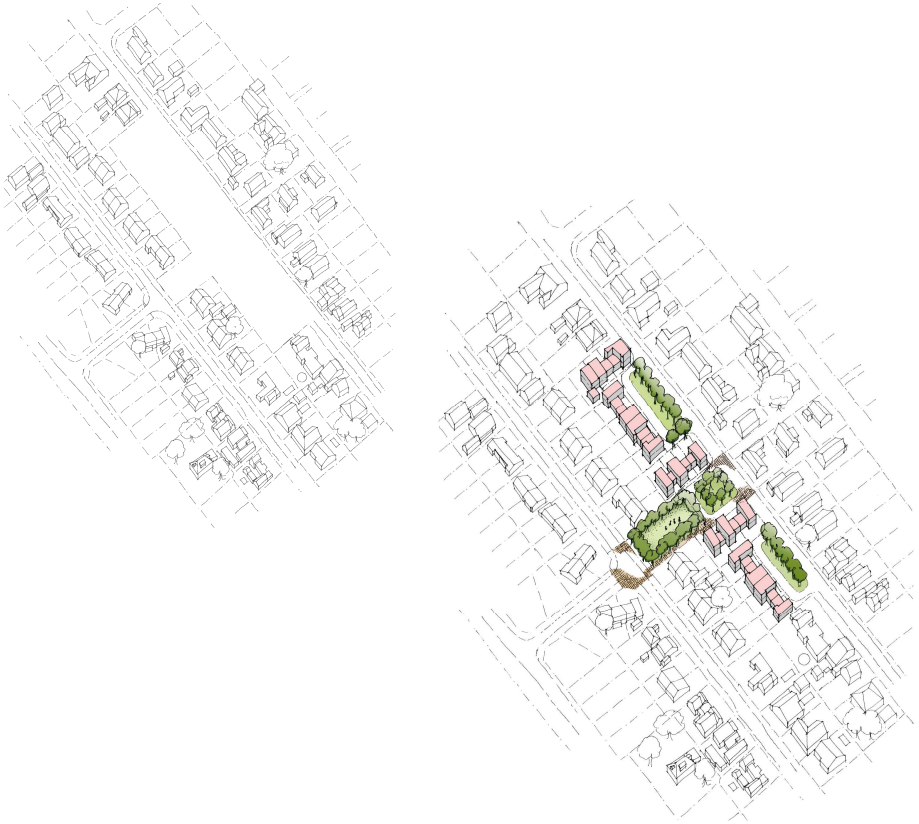


**Figure 3.11.1 Densification of Vacant and Under-utilised Areas**

## 3.12 AVOID "TOWN –CRAMMING"

It important that densification happens according to an overall framework that seeks to optimize public transportation and access to business and community facilities and is not "willy-nilly" directed at any piece of open space wherever it may be located in an ad-hoc and opportunistic fashion, see Figure 3.12.1. This kind of approach is likely to have an unnecessarily negative impact on people's perceptions of property values and create needless resistance to densification;

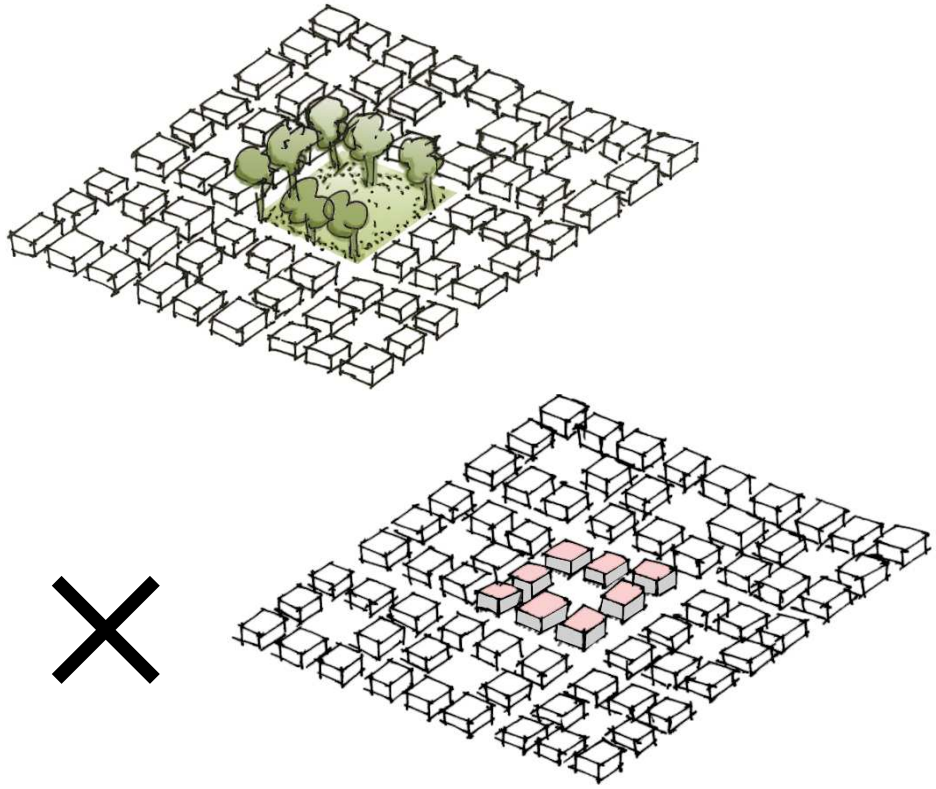


**Figure 3.12.1 Avoid "Town-Cramming"**

## 3.13 PRESERVE WELL-LOCATED OPEN SPACES

In fact, well located open spaces become more precious when there are more people in an area. In many instances, although it may be more complex, it may often be preferable to encourage the demolition and redevelopment of properties abutting the open space rather than developing the open space itself, see Figure 3.13.1.

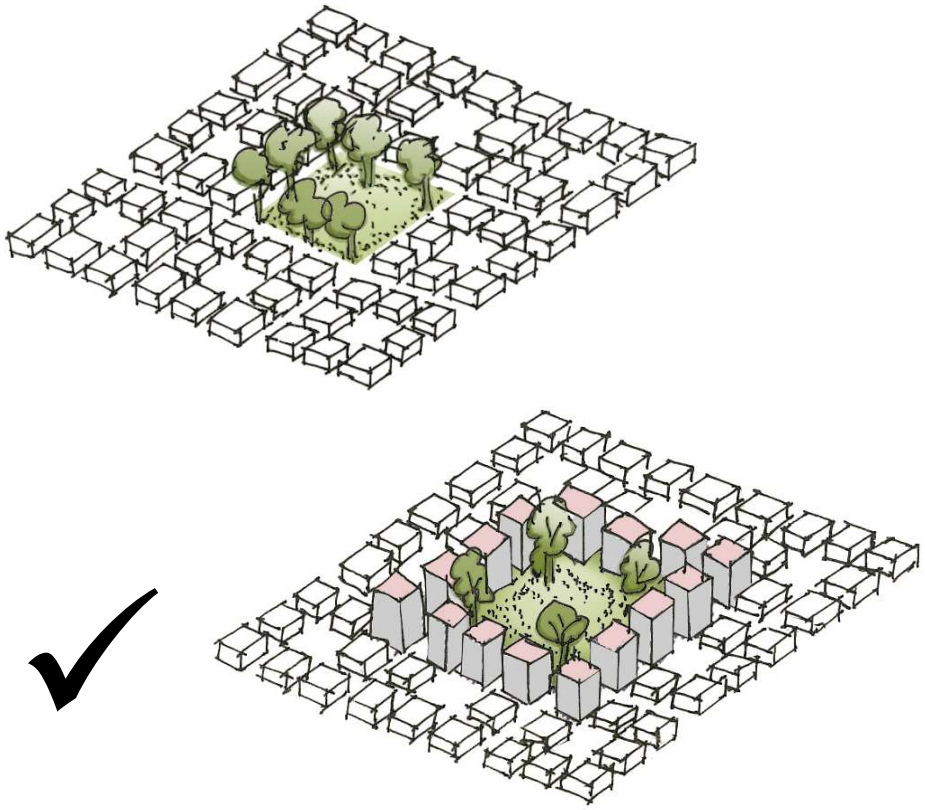


**Figure 3.13.1 Preserve Well-located Open Spaces**

## 3.14 SUSTAINABLE DEVELOPMENT

The overarching goal that should be informing SDFs, IDPs and State of the Environment Reports (SoERs) is sustainable development. The most appropriate definition of sustainable definition remains that of the Brundtlandt Commission.

> "Sustainable Development is the capacity to meet the needs of the present without compromising the ability of future generations to meet their own needs".

However, the term "Sustainable Development" is often used without there being any real understanding of the implications of this goal on current lifestyles, development processes, and how various spheres of government and the private sector conduct their business.

In Section 3.15 an "Ecological Socio-economic Relationship Framework" will be proposed in order to assist with how sustainable development can work in practice.

## 3.15 THE ECOLOGICAL SOCIO-ECONOMIC RELATIONSHIP FRAMEWORK

Various references have been made to the importance of environmental sustainability, see Section 3.14. This should be achieved at the same time as meeting a number of socio-economic demands and requirements as soon as possible.

Therefore, there is a need for some kind of a framework in which all of these competing requirements can be mediated. This has given rise to the Ecological Socio-economic Relationship Framework.

### 3.15.1 The Ecological Socio-economic Relationship Framework

This framework is based on the principle that the relationship between economic efficiency, social justice and human wellbeing, and ecological integrity is not one of equal and overlapping spheres where trade-offs in the one can be set off by enhancements in another. Rather, it recognises firstly, that economic efficiency is **wholly** dependent on the quality of human resources and their ability to deliver their productivity into an economic system; and,

Secondly, economic and social development cannot demand more from eco-system services than their capacity to deliver on a long term sustainable basis.

Because there is only one planet and it operates within a closed ecological cycle it is not possible to exceed the capacity of this system in the long term. Therefore, any over-demand in the short term will lead to long term negative consequences.

Figure 3.15.1 illustrates this relationship by depicting economic efficiency as a circle nesting **within** social justice and human capital which, in turn, both nest **within** the circle of ecological integrity. This illustrates graphically the dependence of economic development and human reproduction on eco-system services.

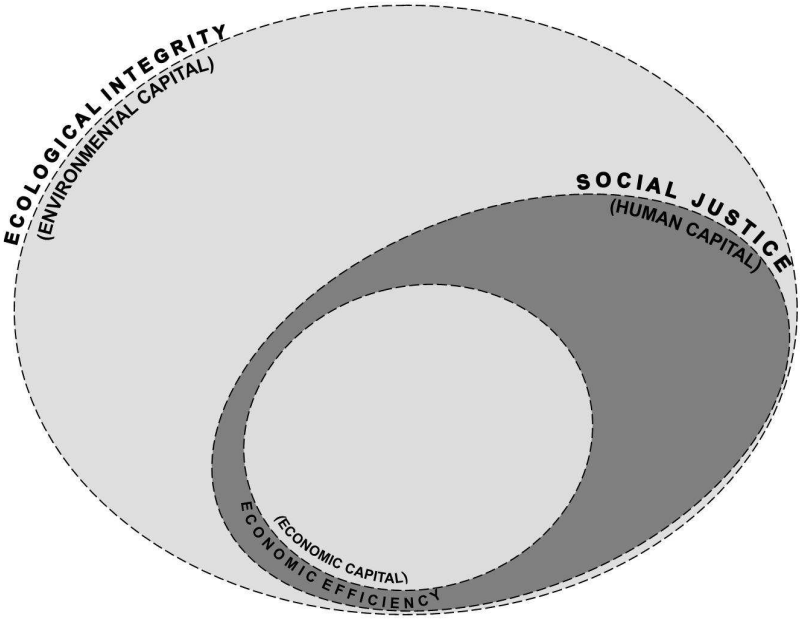



**Figure 3.15.1 The Ecological Socio-economic Relationship**

### 3.15.2 The Closed Ecological Cycle

The mediating relationship between the three components of the Ecological Socio-economic Relationship Framework is found within the closed ecological cycle. The closed ecological cycle acknowledges that levels of production cannot exceed what is available in terms of human resources and what can be extracted from the natural environment. In turn, for the cycle to remain in balance, waste outputs from economic production and human reproduction processes cannot exceed the capacity of environmental sinks to absorb them, see Figure 3.15.2.

The interaction between the Ecological Socio-economic Relationship Framework and the Closed Ecological Cycle creates a framework on which the inputs and outputs of a number of economic activities and eco system services can be measured.

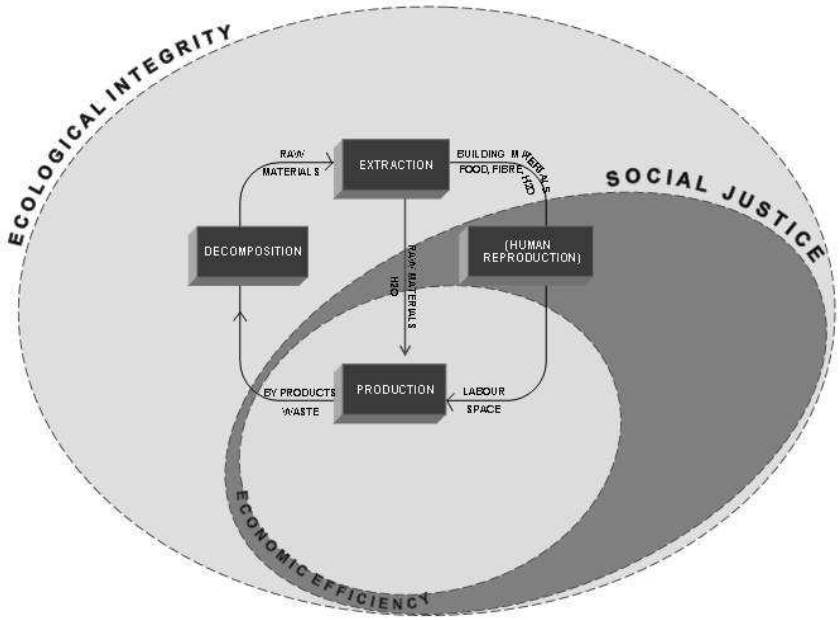



**Figure 3.15.2 The Closed Ecological Cycle**

### 3.15.3 Primary Extraction

Primary extractive economic activities such as mining, fishing, agriculture and forestry are directly dependent on the ability of land resources such as geology, soil, and biodiversity as well as water resources from rivers, groundwater and marine sources for their production. The extent and way in which these resources are extracted has a great bearing on their sustainability.

### 3.15.4 Human Reproduction

Similarly, the quality of human resource inputs into the system is dependent on a number of demographic indicators relating to education, health, housing, employment, entrepreneurial development, spiritual aspects such as the role of religion, and negative issues such as crime.

Aspects of these indicators, for example health are also dependent on the availability of primary extractive outputs such as water, food and fibre. There are indicators available to measure all of these factors which can be used to measure the success, or not, of policies programs and projects aimed at improving the quality of human resources.

### 3.15.5 Urban Settlement Structure

An important aspect of the ability of human resources to participate effectively in the economy as well as interact socially and engage spiritually lies with the structure of urban settlements and the extent to which they are efficient and conveniently structured. Indicators relating to layout densities, the level of social and economic spatial integration, the coexistence of functions, the appearance of buildings and streets, urban environmental quality and the delivery of services help to measure the extent to which urban settlements are positive or negative contributors to the overall socio-economic system.

### 3.15.6 Secondary and Tertiary Economic Sectors

In terms of economic production the main sets of indicators are found in the tertiary and secondary economic sectors. There has been much work done by economists and financial analysts over the years in terms of measuring various aspects of the performance economics of economic sectors and companies, but this is seldom done within a holistic context. As a result economic GDP growth and productivity imperatives have tended to overshadow the need to ensure the ongoing ability of ecosystem services and human resources to effectively continue to contribute to the overall system.

### 3.15.7 Decomposition and Environmental Sinks

The final set of relationships in the ecological cycle relates to decomposition and focus on the performance of environmental sinks such as waste water treatment works, landfill sites, and the absorption of atmospheric and aquatic pollution. If environmental sinks are unable to cope with the loads deposited in them, this will lead to an increasing inability of the eco-system to continue to provide the services that are required in terms of the various extractive components.

There are a number of external drivers to the framework. They include, see Figure 3.15.3.

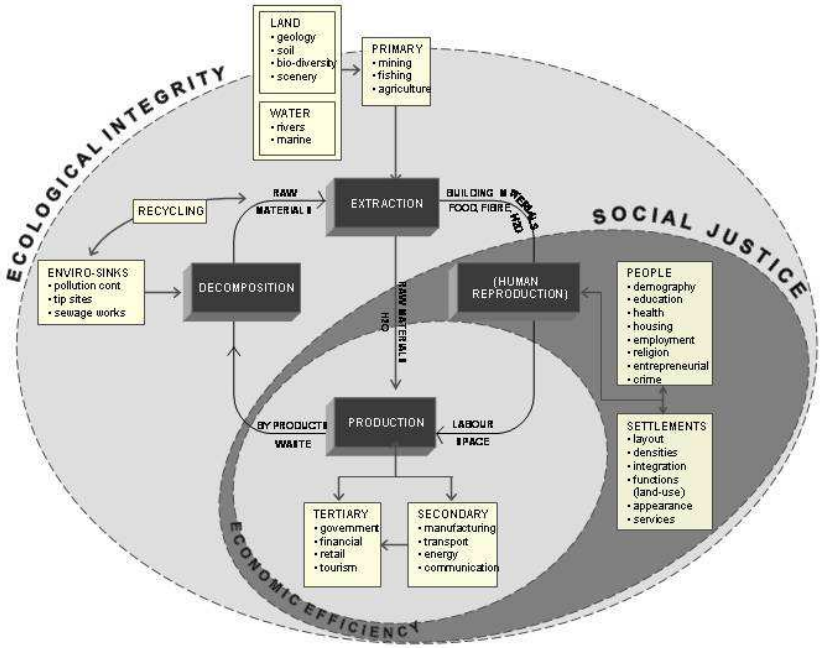



**Figure 3.15.3 The Relationship with Key Performance Indicators**

### 3.15.8 The Property Market

The dynamics of the property market in terms of tourism, residential, industrial, commercial, agricultural and rural property has an enormous bearing on the extent to which the system is able to keep in balance and redistributive policies to be implemented. The issue of land reform and spiralling land prices is an example of the impact of this driver. Understanding property market dynamics should play a major role in the compilation of spatial development frameworks.

### 3.15.9 Economic and Financial Returns

The second important external relationship driver relates to funding and the importance of the following returns:

- Wages (labour);
- Capital (interest);
- Rent (land and property);
- Profit (business enterprises); and,
- Tax (municipal-rates, provincial-tariffs, fees and levies, national–income, VAT, corporate, CGT, STC).

Funding is an important lubricator of the economic system in which South Africa operates. Access to funding plays a major role in decision making and the extent to which the triple bottom line relationship is able to keep in balance. A particularly obvious example of the impact of this driver is the perception of municipalities that in order to balance their budgets they need to increase their rates income and thereby encourage high income property development. However, there is little clarity as to whether the costs of such development, often hidden or not fully described are, in fact, covered by the additional rates income.

### 3.15.10 The First and Second Economy

The third external driver of the Triple Bottom Line Relationship relates to the relationship between the first and second economies and the extent to which all of the various activities are structured in such a way that lessens or deepens the barriers between the "haves" and the "have nots". These barriers are beginning to create an economic underclass which is increasingly unable to participate in the mainstream economy. Most activities in the Relationship Framework can function in either more capital intense modes or more labour intense modes. It is critical that the implications of the choice of a particular mode of production are understood. There is a great danger of deepening the divide between the first and second economy and growing an underclass which could threaten the stability of the entire socio-economic system.

### 3.15.11 Governance and Legislation

The final set of relationships relates to governance and the efficiency with which it is able to take action, administer development control, and have the capacity to implement major projects, see Figure 3.15.4.

An important aspect of this capacity is the extent to which the administration of legal framework at national, provincial and local level is

enabling or is becoming so unwieldy as to create blockages that destroy rather than create value and opportunity.

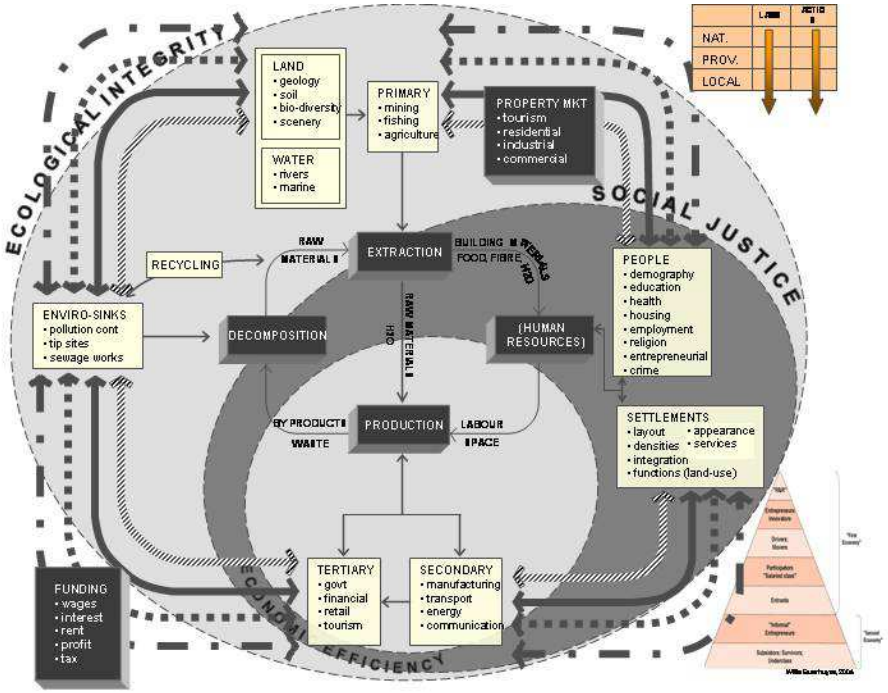



**Figure 3.15.4 External Drivers**

## 3.16 FOOD MILES

This is a relatively new sustainability concept that focuses on the issue of how much energy is required to put food on the table. Initially this work focused on the distances food was being transported but then also started to explore the energy embodied in the production of food from various sources and methods of production. Implications include:

- Reducing the distance between production and consumption.
- Promoting local economic development.
- Conservation of well located agricultural resources, land and water, becomes paramount.
- Clash with dynamics created by buying forces of major food chains, driving down prices for primary producer, long distribution channels, need for long storage life, and conditions for small producers – versus Fairtrade – Marks & Spencers.

## 3.17 LOCAL ECONOMIC DEVELOPMENT

The Overberg District Municipality is facing net emigration from its towns as well as its rural areas.

The main reason for this would seem to be the increasing inability of the land and urban settlements to sustain reasonable livelihoods.

Rural-urban emigration is a worldwide phenomenon and is happening in all rapidly modernizing economies, particularly in India and China.

Migration theory has identified a number of push factors; declining rural resource base in the primary sectors, lack of education and health facilities, discrepancies between rural and urban incomes; and pull factors "the bright lights" (aspirations driven by consumer advertising), exposure to greater business markers and tertiary education facilities.

Todaro, the development economist, identified that it was possible to have significant urban migration in the face of high unemployment levels based on the expectations of finding an urban job rather than certainty that such a job was available. He noted that the higher the difference between rural and urban incomes the greater unemployment levels could be and people would still migrate to urban areas.

This migration forces raise questions about the appropriate nature of local economic development.

In South Africa a reversal of this trend has been noted where middle class, mainly white retirees move to rural towns pushed by the crime and grime of cities and the pull of quiet rural environment, relatively cheap housing, picturesque towns, good quality internet connections and a range of sporting facilities.

Three types of people who remain in rural areas can be identified:

1. Survivalists who don't have the skills or aspirations to move to towns;
2. Those who can find work to fulfil globalised aspirations locally, mainly public sector but also some tourism, farmers, miners and service sector entrepreneurs; and,
3. Retirees, generally living off pension or passive income transfers from elsewhere.

## 3.18 LINKING 1st AND 2nd ECONOMIES

Cape Agulhas is characterized by having many participants in the 2nd economy and few in the first. Part of the development challenge is to provide as many opportunities as possible for 2nd economy participants to link with the 1st, see Figure 3.18.1. Many of these links are regulatory, experiential or educational and beyond the scope of an SDF. However, a critical component of these opportunities is found in space.

This is most easily understood in terms of formal and informal retail space opportunities. Retail space opportunities form a hierarchy from regional shopping centres with anchor tenants paying low and line shops often extremely high rentals, through to neighbourhood centres, high street shops, markets, spaza, and street traders.

Informal traders, operating in the 2nd world economy are prohibited by high rentals, argued as excessive by even exclusive national retail chains such as Hilton Weiner and Aca Joe (Platinum Group) from trading in regional and neighbourhood shopping centres. Municipal by-laws often also exclude them from high street shopping precincts or attempt to herd them into markets, often poorly located from a trading point of view.

Therefore, it is proposed that a hierarchy of trading opportunities is made available to informal traders and SMMES comprising the following:

- 20% of the space in regional and neighbourhood shopping centres including a market area – which may be linked to a public transport drop-off point and mall and sidewalk opportunities;
- Centrally located market, which may be linked to a public transport interchange, able to intercept significant pedestrian flows;
- Range of sidewalk, verge and median opportunities that cater for permanent traders e.g. fruit and vegetable, refreshments, newspapers and magazines and periodic, crafts, junk, second-hand, antiques, clothes;
- All of these opportunities should be properly managed and enforced with reasonable permit conditions enforced, and, depending on levels of security and facilities provided (toilets, paving, shade, services) rentals charged;
- Areas within CBD's should be set aside, and if necessary expropriated to provide SMMEs access to the best located parts of CBD's for formal retailers, service providers and manufacturers.

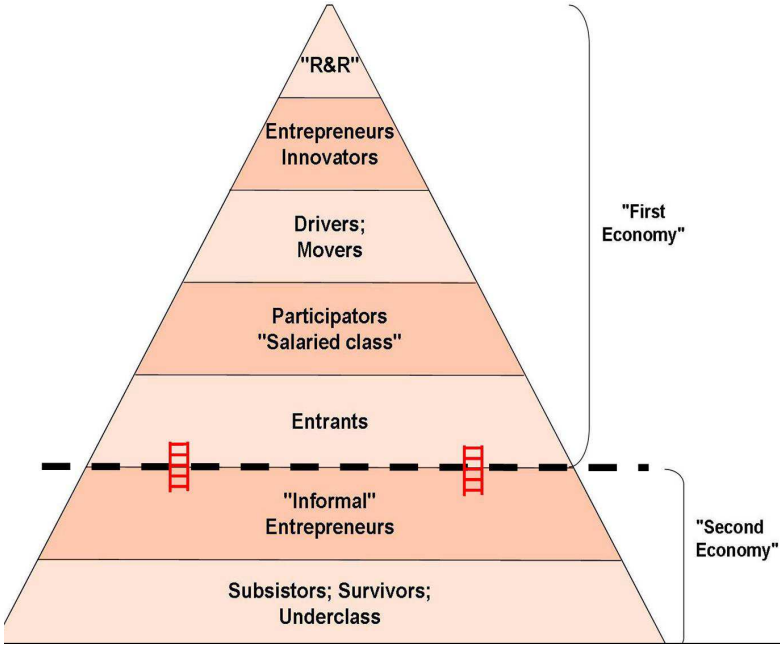



**Figure 3.18.1 Linking the 1st and 2nd Economies** (source: Willie Esterhuyse, 2004)

# 4. THE CURRENT STATE OF THE MUNICIPALITY

## 4.1 A FRAMEWORK OF INTERRELATED SYSTEMS

There is always tension between the reality that life and all of its components function and are experienced as a single interrelated system, and the need to disaggregate these components for the purpose of research and teaching (hence the divisions at school into subjects and at university into faculties) and administration (compartmentalisation of government into departments and ministries). The last three to four decades have seen this tension emphasise separation to the extent that governments and educational institutions have become increasingly unable to address, cohesively, the various demands made of them.

However, an holistic approach can only be effective if it is carried as a golden thread through all the activities of government including background research, proposal formulation and implementation. This places a considerable challenge on the Cape Agulhas and DMA SDF to go beyond the traditional rational comprehensive approach to spatial planning in order to avoid compartmentalisation and to support the achievement of holistic governance. This is done in the Cape Agulhas and DMA SDF through the use of a "framework of interrelated systems", which recognises that activities in the Municipality occur as a multi-layered matrix in a single space - the geographical extent of the Municipality. Although there is clearly exchange outside the boundaries, e.g. imports and exports, fiscal transfers, energy transmission and cyclical and permanent migration, ultimately the Municipality depends on the resources within its boundaries.

Figure 4.1.1 illustrates this relationship by showing how the 26 layers of the matrix of the Municipal's analysis are all interrelated within the spatial extent of the Municipality, even though they may be separated for the purposes of research, implementation and management. At the macro level the layers can be grouped into three categories.

**Bio-physical**
Natural systems are the primary or foundational layer on which all of the others rest, acknowledging the natural capital base on which the other two set of layers must feed, in a sustainable way. Thus, geology, soils and climate form the basic geomorphological relationship which gives rise to hydrological, topographical and biodiversity patterns. Agriculture and mining are included in this sub-set due to their close relationship with the natural environment.

**Socio-economic**
Previous research (Gasson, 1998) shows a primary correlation between population distribution and the underlying resource pattern of natural environmental distribution, rather than with the pattern of the built environment. The pattern of the built environment is a derived rather than primary relationship. It is nothing more than a reflection of how the relationship between population requirements and natural resources is resolved. Therefore, the next set of layers resting on top of the natural systems layers relates to socio-economic trends.

**Built**
The final set of layers deal with the built environment, and the analysis that follows will show that it is with these layers and the patterns they follow that most problems with resource sustainability occur.

Planning, heritage and environmental policy are seen as three golden threads that have a transverse relationship with all the layers of the framework.

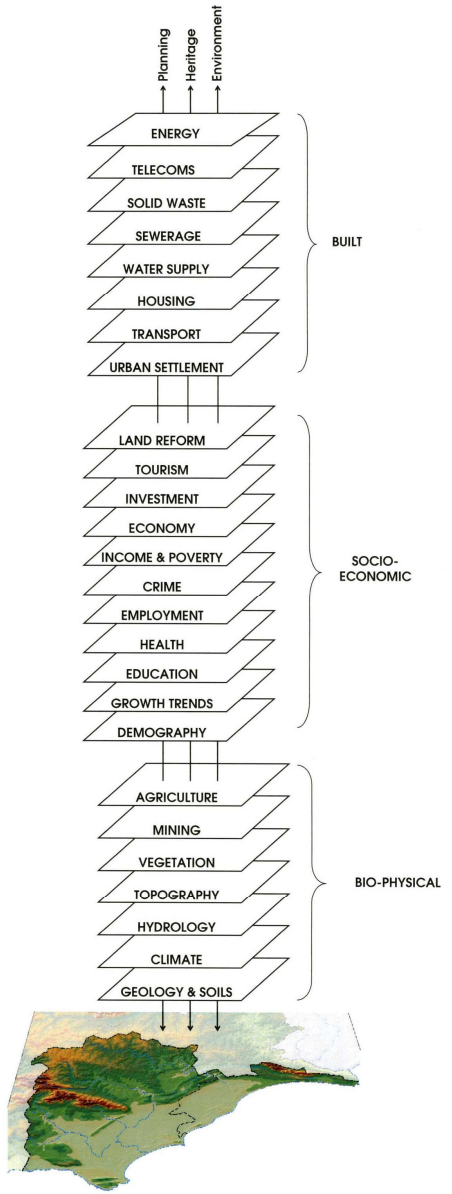



**Figure 4.1.1 A Framework of Interrelated Systems**

## 4.2 NATURAL SYSTEMS

### 4.2.1 Geology and Soils

The majority of the Municipality's area is comprised of three types of geological formations: shale, limestone and arenite, see Figure 4.2.1.1.

The shale is a fine grained sedimentary rock that is located in the northern areas of the Municipality.

The limestone is located along the coastal plan generally covering the entire old DMA area and from Arniston through Struisbaai to areas such as Hermanus (outside this study area).

The arenite formation, a metamorphosed sedimentary rock, is found along the Bredasdorpberg mountain range and along the south eastern boundary of the former DMA. Some Phyllite and granite are also mixed between the arenite along the Bredasdorp mountain range and south of Elim.

Figure 4.2.1.2 shows the soil depth which indicates that the soil depths are generally between 450mm and 750mm.

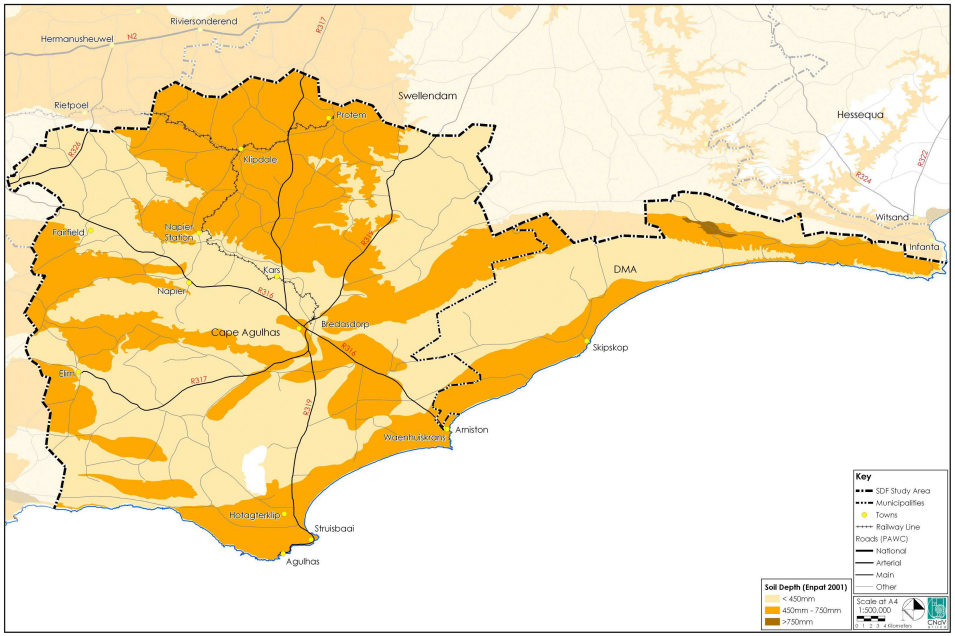



**Figure 4.2.1.2 Soil Depth**

**Photo 4.2.1.1 Rolling Cape Agulhas landscape** (source: CNdV Africa, 2008)

**Photo 4.2.1.2 The Rûens of the Overberg**
(source: The Overberg Inland from the Tip of Africa -Melanie Cleary, Karena du Plessis, struik)

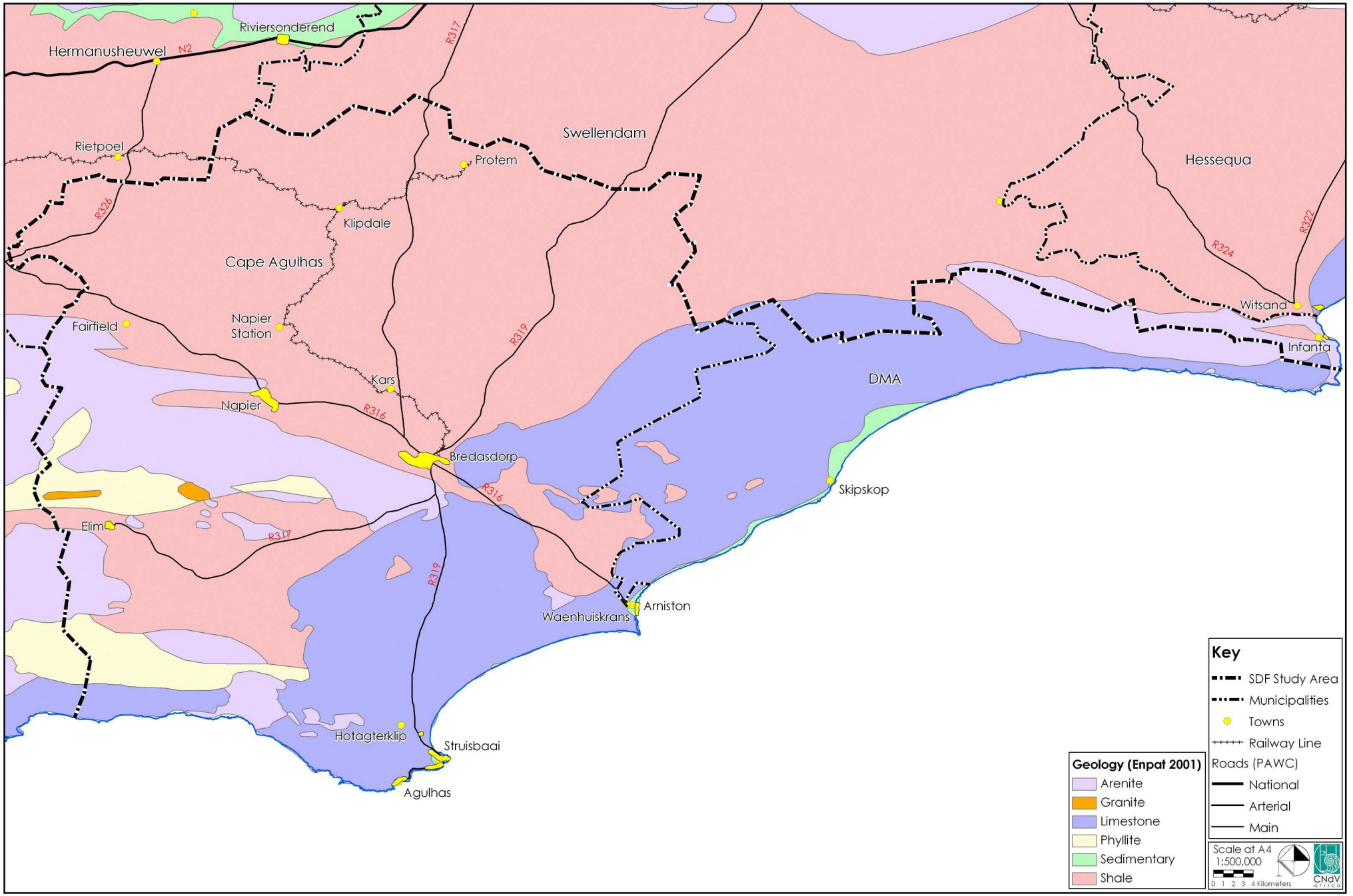



**Figure 4.2.1.1 Geology**

Figures 4.2.1.2, 4.2.1.3 and 4.2.1.4 show the soil depth, clay content and the soil capability for the study area, respectively.

The areas with the high clay content are generally the high mountain ranges such as the Bredasdorpberg and Swartberg. Their clay content ranges between 15% and 35%. The remaining areas, generally the coastal plain, has clay content between 0% and 15%, see Figures 4.21.3.

Figure 4.2.1.3 which should be read in conjunction with Figure 4.2.1.2 shows the expected soil capability classification based on the underlying soil quality. This classification indicates that the majority of the municipality is ideally suited for grazing and cultivation with a limited area that is suited for wildlife activities.

**Photo 4.2.1.3 Stock grazing** (source: CNdV africa, 2008)

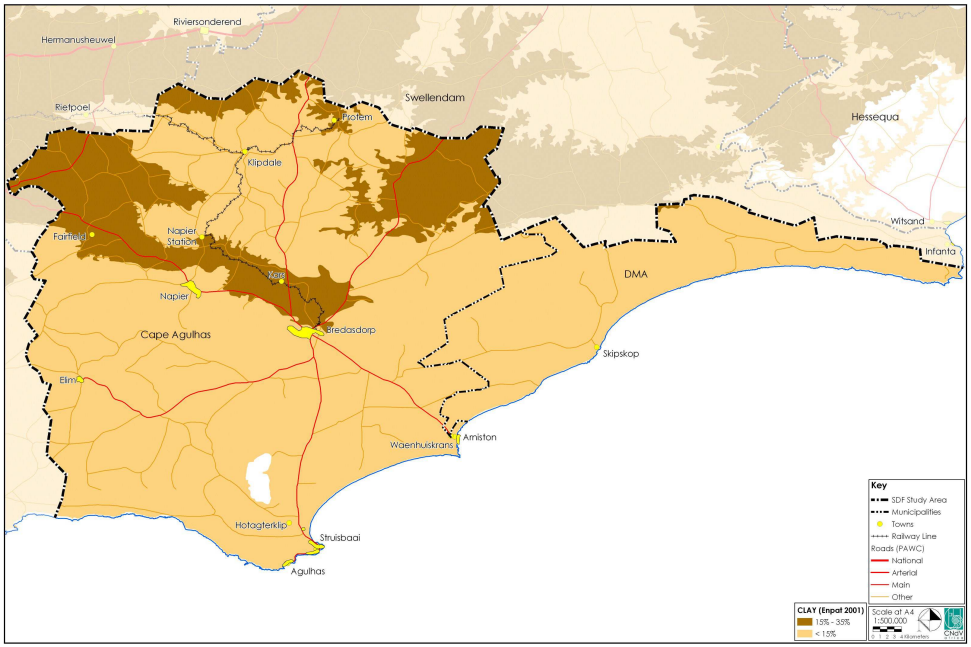



**Figure 4.2.1.3 Clay**

**Photo 4.2.1.4 Canola fields** (source: The Overberg Inland from the Tip of Africa -Melanie Cleary, Karena du Plessis, struik)

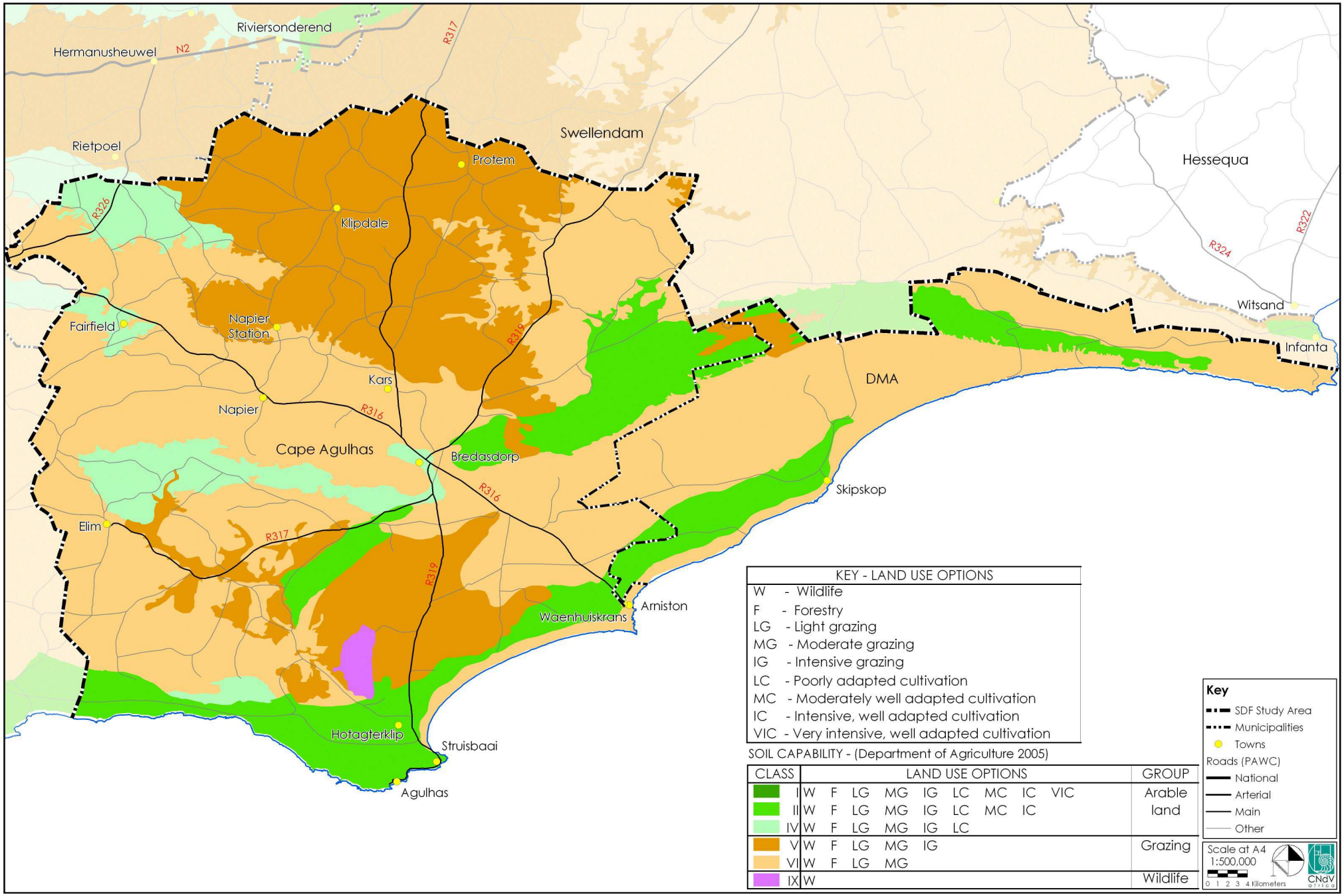



**Figure 4.2.1.4 Soil Capability**

## 4.2.2 Climate

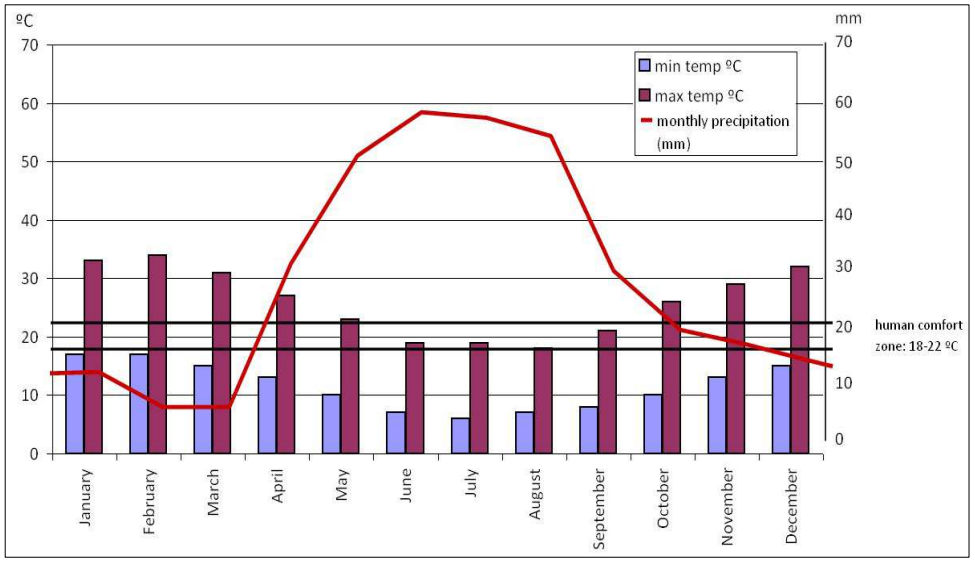
### 4.2.2.1 Current Patterns

The area has a Mediterranean climate with temperatures ranging from 8ºC (average winter low) to 26ºC (average summer high). (source: Agricultural Research Council)

Figure 4.2.2.1 shows the mean annual rainfall distribution across the Municipality. The mean annual rainfall is approximately 500mm. The two patches of high rainfall coincides with the Swartberg (outside the study area) and Bredasdorpberg Mountain ranges along the western boundary of the Municipality. The average mean annual rainfall for these areas is 750mm.

The remainder of the Municipality – the coastal plains - receives a lower rainfall, on average a mean annual rainfall of 500mm.

The average total rainfall for October to March is 165mm and from April to September, the higher rainfall period, 271mm. (source: Agricultural Research Council)




**Graph 4.2.2.1 Average Annual Temperature and Rainfall 1998-2007**
(source: South African Weather Service, 2008)

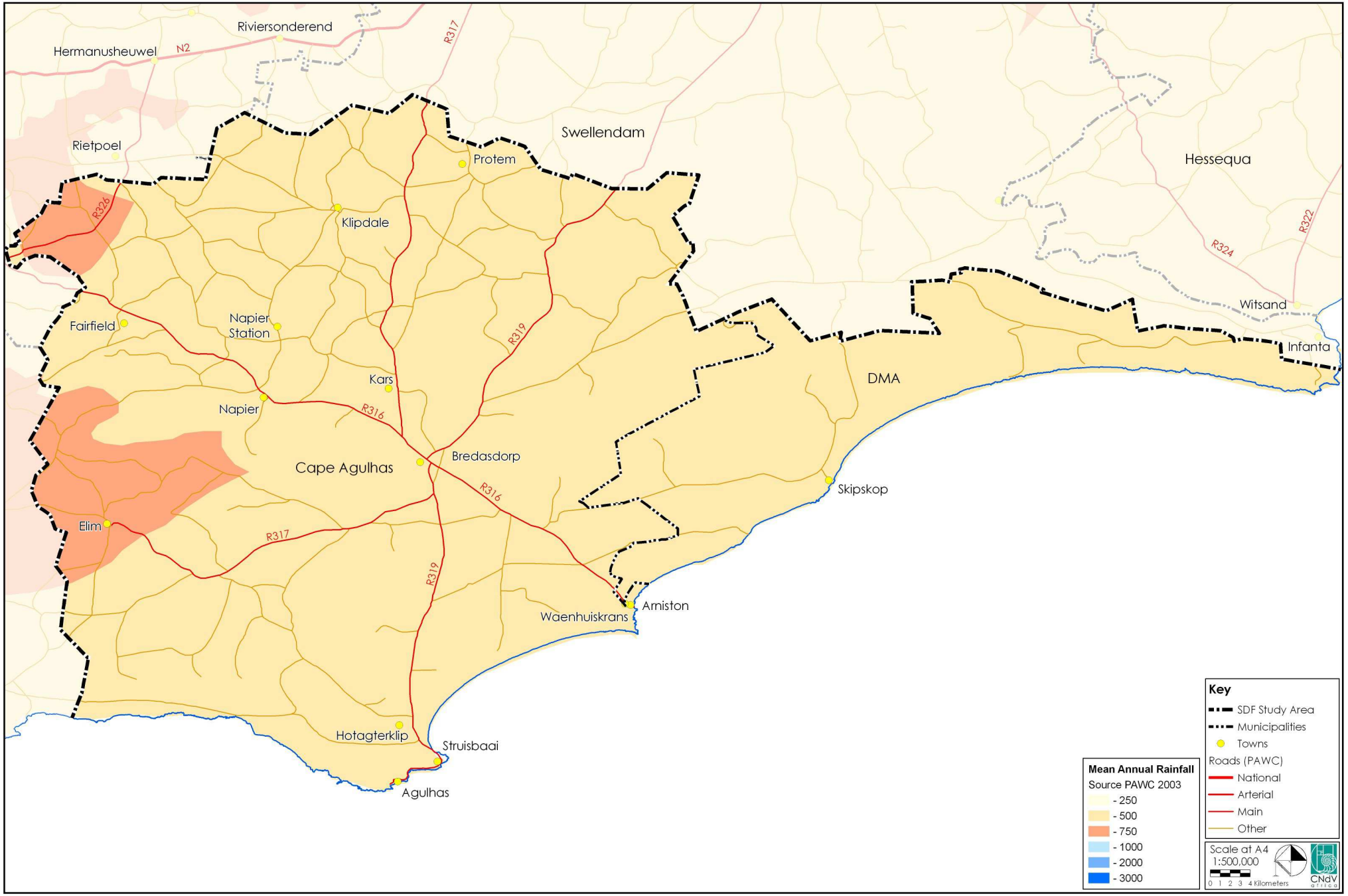



**Figure 4.2.2.1 Rainfall**

### 4.2.2.2 Climate Change

The vision for Sustainable Energy Use in the Western Cape is for the province to have a "secure supply of quality, reliable, clean and safe energy, which delivers social, economic and environmental benefits to the Province's citizens, while also addressing the climate change challenges facing the region and the eradication of energy poverty" (White Paper for Sustainable Energy Use in the Western Cape, 2010).

The White Paper for Sustainable Energy Use in the Western Cape (2010) sets targets in respect of sustainable energy use for the province. It stipulates that 15% of electricity consumed in the Western Cape Province is to be sourced from renewable energy sources by 2014 – this has been measured against the 2006 Provincial consumption.

The policy framework recognises that in order to fulfill international commitments to sustainable development and climate change, the use of renewable energy as a source of electricity is to be promoted.

The Western Cape Climate Change Strategy (2008) identified a number of possible likely stress factors in the period 2030 – 2045 that could affect the province:

- An increase in the annual average temperature of at least 1 °C by 2050 (the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report released in February this year shows an expected increase of between 3 and 5 °C by 2100);
- Possible increase in the frequency and intensity of extreme events;
- An increase in conditions conducive to wildfires (higher temperatures and increased wind velocity);
- Reduced rainfall in the western parts of the Western Cape;
- Decreased water resources;
- Reduced soil moisture from an increase in temperature coupled with a decrease in average precipitation;
- Temperature impacts on crop activities – crop burn, drought, pests and microbes resulting in yield reductions, and loss of rural livelihoods.

The goals and objectives of this strategy, with specific reference to energy is to reduce the Provincial carbon footprint by means of air quality management; household fuel replacement; cleaner fuels for transport; energy efficiency and renewable energy – maximizing benefits through stimulating and subsidizing innovation in clean and renewable technologies.

Four vulnerable systems were identified:

- Natural systems – water, biodiversity, and coastal and marine systems and resources
- Economic sectors – agriculture, tourism and fisheries
- Economic resources and infrastructure – energy, transport, health and air quality
- The built environment, livelihoods and disasters – social systems, extreme events (floods, fires).

**Photo 4.2.2.1 Soetevlei Farm windmill with rain clouds in the background**
(source: The Overberg Inland from the Tip of Africa -Melanie Cleary, Karena du Plessis, struik)

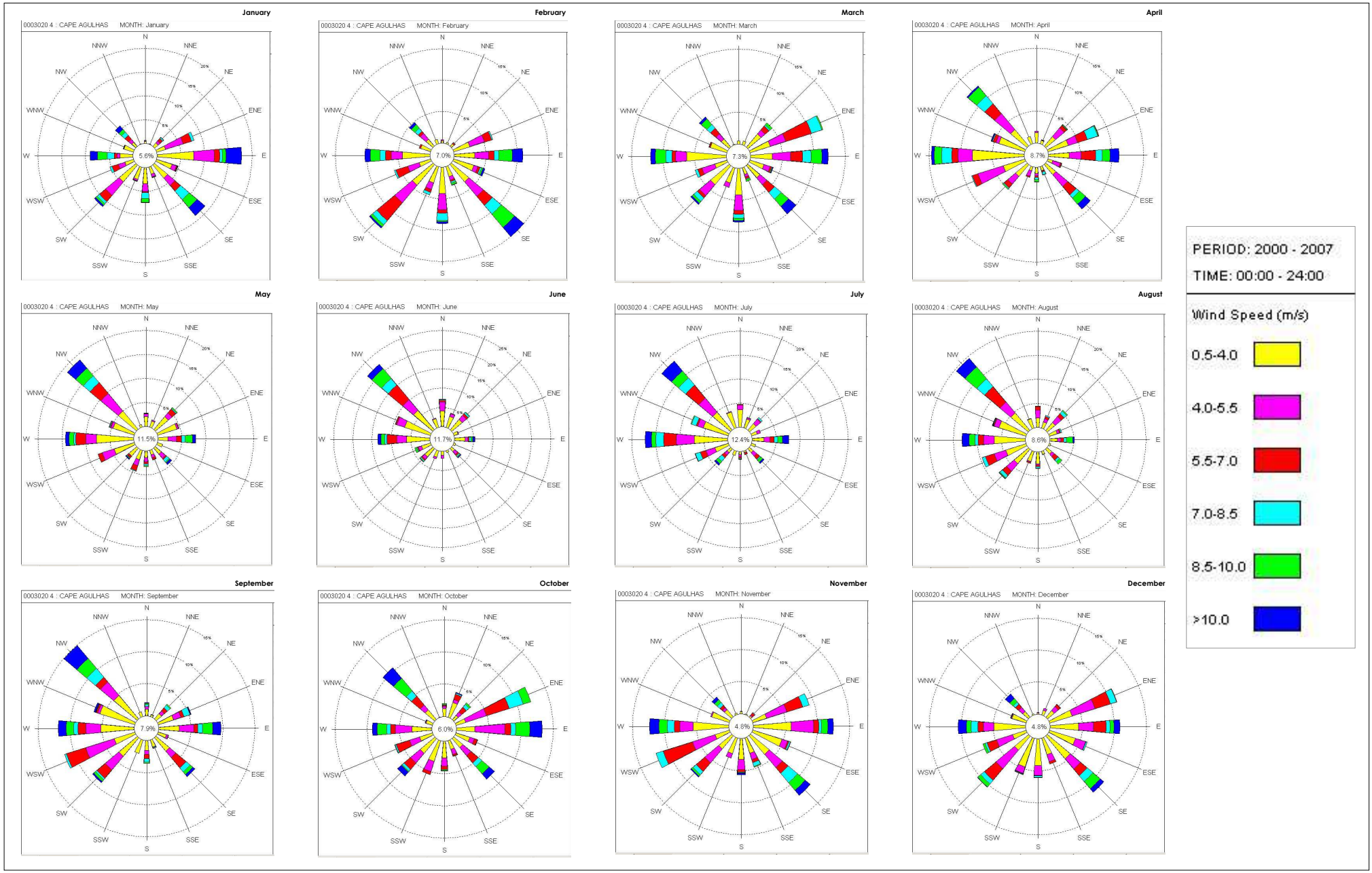



**Figure 4.2.2.2 Wind Speed and Direction for Cape Agulhas** (source: South African Weather Services, 2008)

### 4.2.3 Topography and Slopes

The topography of the Municipality is indicated in Figure 4.2.3.1. This topography has arisen from the interplay between climate and geology in the Municipality.

The Municipality is divided into two topographical landscape rooms namely the higher lying north western inland plain sloping from the north western to south eastern direction along the Bredasdorp mountain range and the lower lying south eastern section along the Agulhas coastal plain.

The inland plain comprises rolling hills of the Rûens at an altitude of about 250 to 400m. A number of river valleys fall off this plain including the, Nuwejaars, Heuningnes, Kars and Sout.

The highest inland plain areas are along the Bredasdorpberg mountain range that reaches a height of approximately 1000m.

The eastern coastal strip comprises a wide coastal plain, the Agulhas, at about 15m to 50m. The Heuningberg and Soetmuisberg are the higher lying areas in this plain area.

Figure 4.2.3.2 shows slopes greater than 1:4 (20%) in the municipality. These are generally considered too steep for conventional housing and urban development and other uses such as agriculture, particularly annual crops. These steep slopes are generally found along the Bredasdorpberg mountain range and along the eastern boundary of Potberg Mountain range.

The flatter coastal plain has slopes below 1:20 (5%).

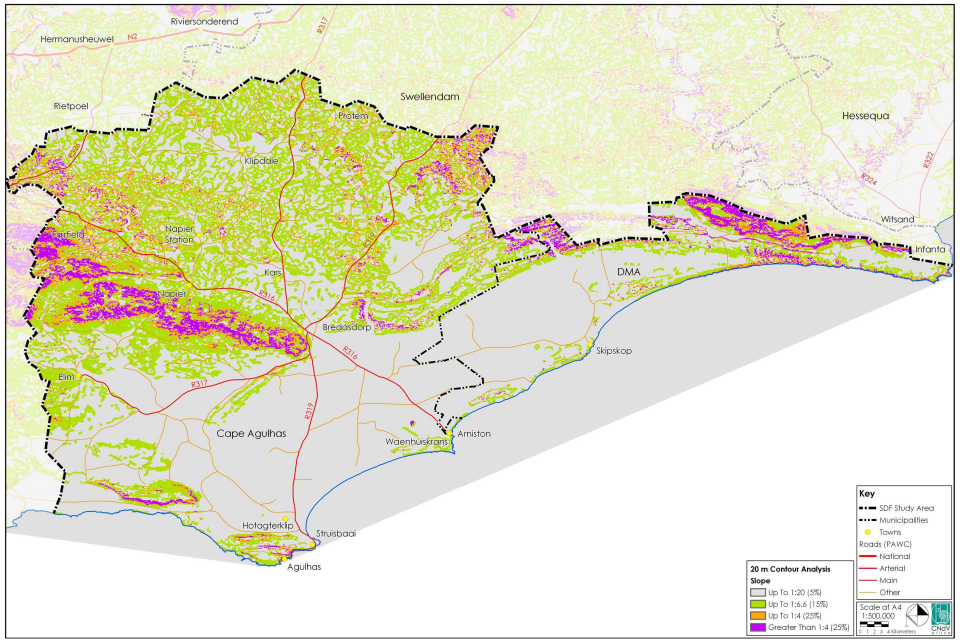



**Figure 4.2.3.2 Slope**

**Photo 4.2.3.1 Mountain Ranges** (source: CNdV Africa, 2008)

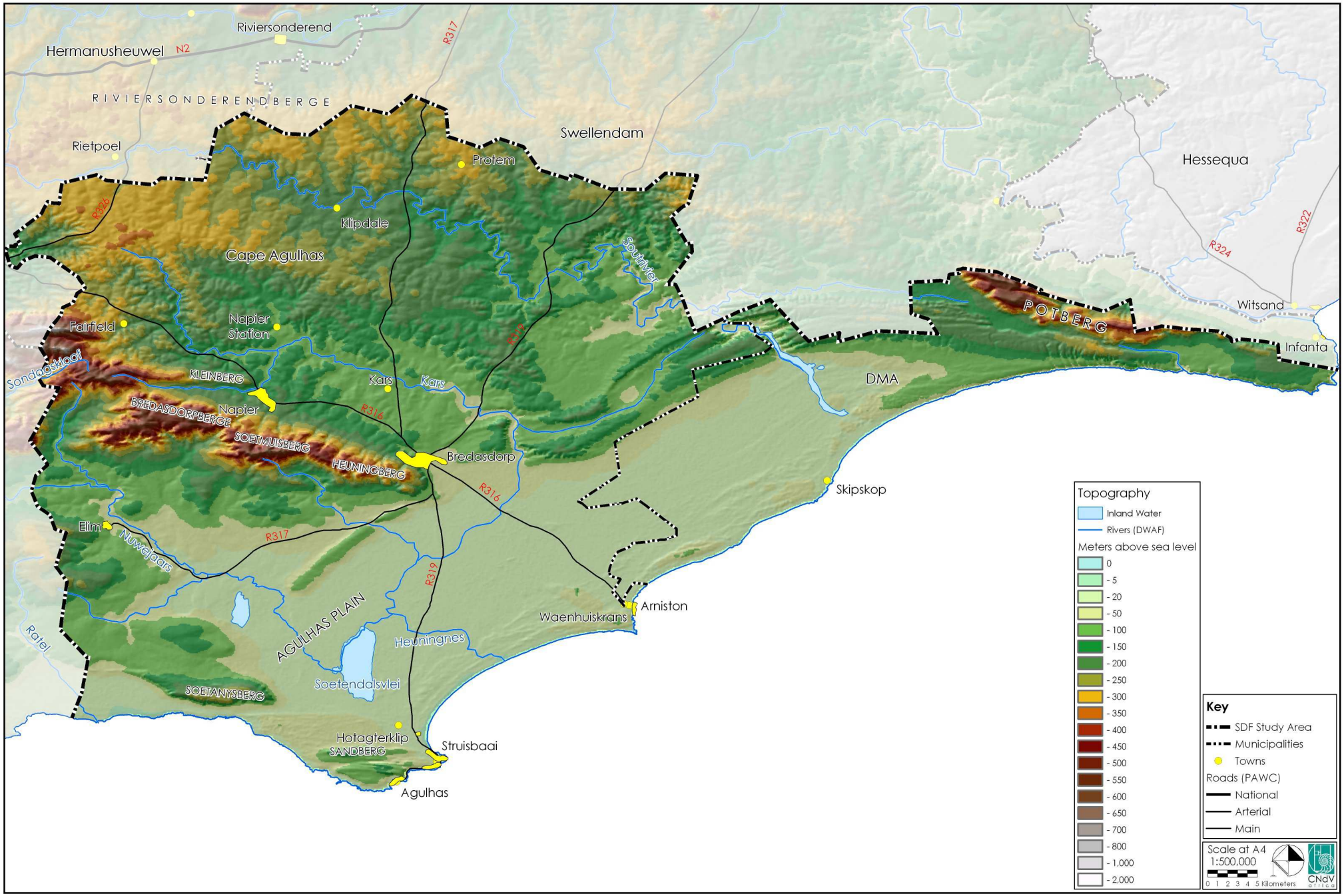



**Figure 4.2.3.1 Topography**

### 4.2.4 Water Resources (Hydrology)

Figure 4.2.4.1 indicates the rivers systems in the Municipality. Three main river systems are perceived, namely the Nuwejaars leading into the Heuningnes; the Kars and the Sout Rivers. The Sout River is a blind system flowing into the De Hoop vlei.

Figure 4.2.4.2 shows that all of the rivers in the municipality are in a poor quality being classified critically endangered or endangered.

The poor state of the rivers in the Municipality could be ascribed to poor riparian land use practices including river bank ploughing, removal of indigenous riparian vegetation, poor erosion control, pollution by agricultural chemicals and over abstraction.

The rivers and their flood and ecological corridors require urgent attention if this situation is to be effectively and timeously addressed.

Various vleis are connected to the rivers systems, namely the Soetendalsvlei (and Voëlvlei) on the Nuwejaars River; the Karsrivervlei on the Kars River and the De Hoop vlei on the Sout River. This is predominantly in the southern section of the study area.

Soetendalsvlei is the second largest wetland that is a permanently flooded lake, bigger than 8ha and more than 2m deep (i.e. lacustrine), in South Africa. (Urban Dynamics, 2004)

Seasonal flooding creates shallow vegetated wetlands, including marshes, swamps, bogs, fens and vleis (called palustrine) in the study area between the lower Nuwejaars River and De Mond to the coast and is of significant importance for waterfowl, see Figure 4.2.3.2. (Urban Dynamics, 2004)

South Africa has 19 Ramsar Sites of which five are located within the Western Cape. Of the Five Ramsar Sites in the Western Cape, two are located within the Cape Agulhas Municipality, see Table 4.1. The two Ramsar Sites in the study area are De Mond (Heuningnes Estuary) and De Hoop Vlei, see Figure 4.2.4.1.

| # | Name | Date | Size |
|---|---|---|---|
| 1 | De Hoop Vlei (Cape Agulhas) | *12/03/75* | 750ha |
| 2 | De Mond (Heuningnes Estuary)(Cape Agulhas) | *02/10/86* | 918ha |
| 3 | Langebaan | *25/04/88* | 6 000ha |
| 4 | Verlorenvlei | *28/06/91* | 1 500ha |
| 5 | Wilderness Lakes | *28/06/91* | 1 300ha |
| TOTAL | | | 10 468ha |

**Table 4.2.4.1 Ramsar Sites in the Western Cape**
(source: http://www.ramsar.org/sitelist.doc, 25 September 2008)

A Ramsar site is a wetland site that has been adopted to form part of the list of the Convention on Wetlands of International Importance that was signed in 1971 in an Iranian Town called Ramsar. The objective of Ramsar is to stem the progressive encroachment on and loss of wetlands now and in the future. Ramsar seeks to promote the wise use of the wetlands and the special protection for wetlands on the list.

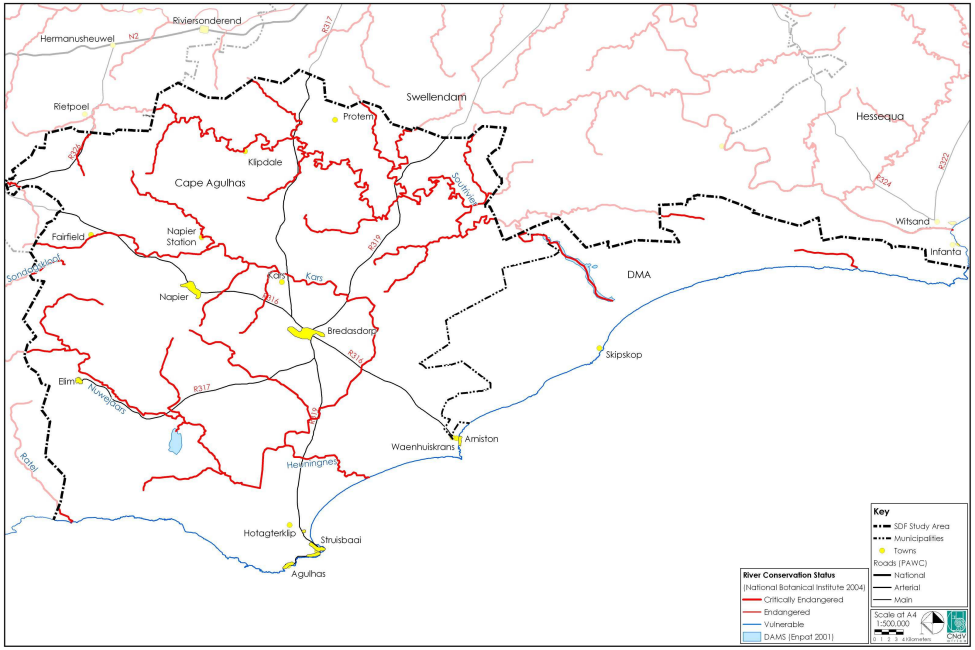



**Figure 4.2.4.2 River Conservation Status**

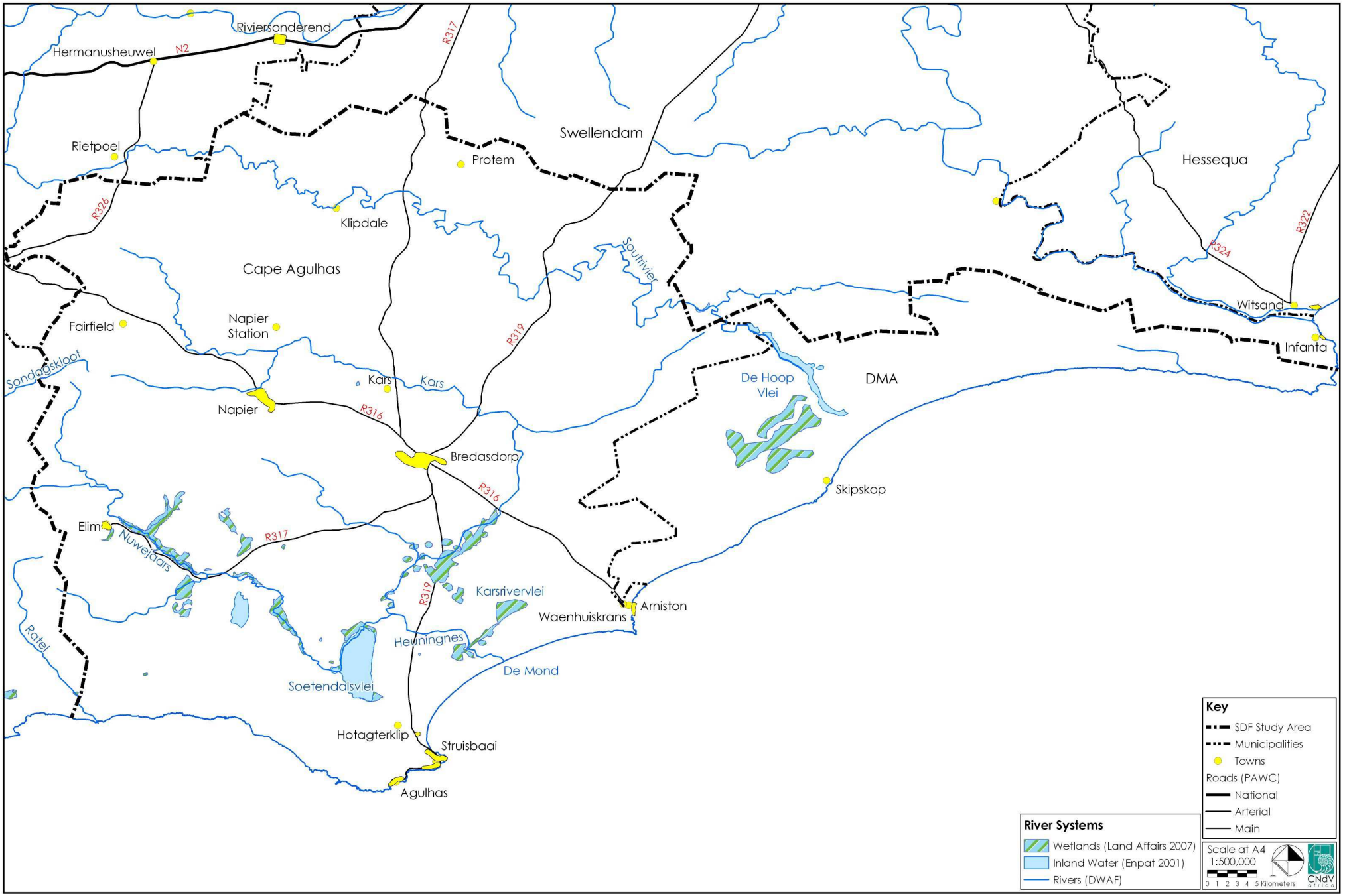



**Figure 4.2.4.1 River Systems**

### 4.2.5 Biodiversity

Biodiversity refers to genes, species (animals and plants), ecosystems, and landscape and the ecological and evolutionary processes that allow these elements of biodiversity to exist.

Five percent (5%) of South Africa's terrestrial ecosystems are critically endangered and the majority of these are in the lowland parts of the fynbos biome, in the Western Cape Province. The other biomes in the Western Cape is the Nama Karoo biome. Figure 4.2.5.1 shows National Spatial Biodiversity Assessment (NSBA, 2004) classification of the terrestrial ecosystems in the Cape Agulhas Municipality. This assessment uses the following four classifications:

- Least threatened ecosystems (LT) that have lost only a small proportion of their original habitat and are largely intact (although they may be degraded to a varying degree);
- Vulnerable ecosystems (VU) that have lost some of their original habitat and their functioning will be compromised if they continue to lose natural habitat;
- Endangered ecosystems (EN) that have lost significant amounts of their original habitat with the result that their functioning is compromised; and
- Critically endangered ecosystems (CR) that have lost so much of their original habitat that ecosystems functioning has largely broken down and a significant proportion of species associated with that ecosystem has been lost is likely to be lost. (De Villiers ed, 2005)

Figure 4.2.5.1 shows that the approximately half of the study area is Critically Endangered (CR), mainly the northern areas to around Bredasdorp and the areas from about Elim along the Nuwejaars River. Approximately another quarter of the Municipality is either Endangered (EN) or Vulnerable (VU). The area generally along the coastal plains and the Bredasdorp mountains are least threatened (LT).

Vegetation is also often used as a surrogate for biodiversity and native plants make up the different vegetation types. This is to be encouraged. A common example of the use of vegetation as a surrogate for biodiversity is where a target (e.g. 10 to 20 per cent of area of remaining vegetation type) is set in a catchment to protect a vegetation ecosystem and its biodiversity. This approach may be adequate if the species found in the overall vegetation ecosystem are well represented in the portion of this ecosystem chosen for protection, and if the habitat requirements of these species can be met by the portion setaside.

**Photo 4.2.5.1 Diversity of vegetation at L'Agulhas Lighthouse** (source: Sanparks.org)

**Photo 4.2.5.2 Diversity of vegetation** (source: CNdV Africa, 2008)

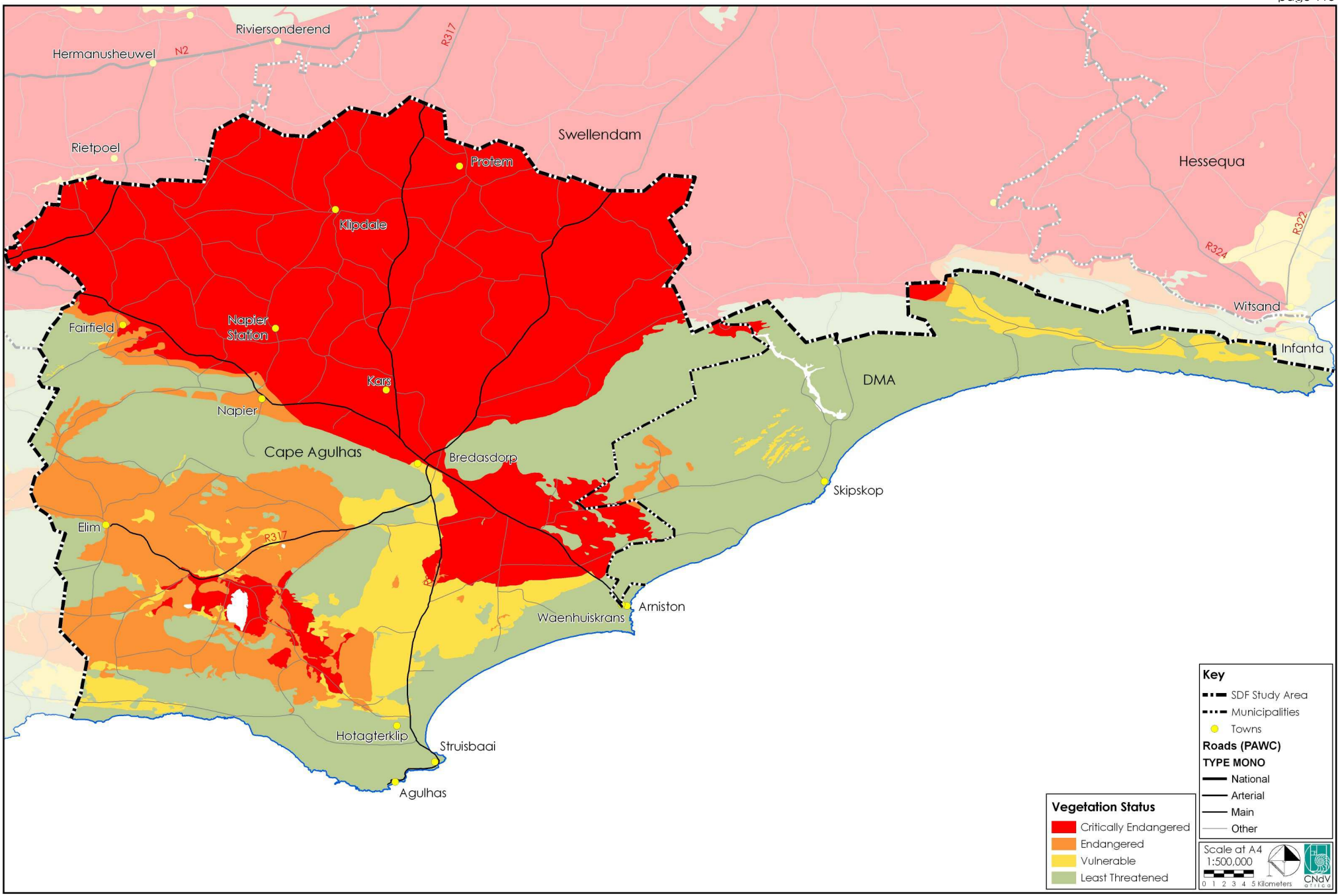



**Figure 4.2.5.1 Ecosystem Status**

### 4.2.6 Vegetation

The Western Cape Province is one of the most biologically sensitive parts of the world containing substantial parts of the Cape Floristic Region, Succulent Karoo and Maputoland – Pondoland – Albany hotspots.

The Cape Floristic Floral Kingdom is one of 6 floral kingdoms in the world and covers 0.06% of the surface of earth. About 8700 species appear in the kingdom of which 68% is endemic.

The Western Cape is internationally renowned for the Cape Floristic Region (fynbos biome that is mostly along the coastal plains) and the Succulent Karoo biome. (CNdV, 2005)

The Cape Floristic Region is one of 9 priority areas for biodiversity conservation in South Africa and the Renosterveld habitat, which is extensive in the Cape Agulhas Municipal area, constitutes a large part of these critically endangered and endangered systems, see Figures 4.2.5.1.

The Cape Action Plan for the Environment (C.AP.E) programme identified the Cape Renosterveld Lowlands in the Overberg and the Swartland, where less than 10% of the original habitat remains, as top conservation priorities in the Cape Floristic Region, see Figure 4.2.6.1.

Four Renosterveld vegetation types (all Critically endangered) have been identified in the study area, namely: Western Rûens Shale Renosterveld; Central Rûens Shale Renosterveld; Eastern Rûens Shale Renosterveld; and Rûens Silcrete Renosterveld. All four of these Renosterveld vegetation types are critically endangered and are national biodiversity priorities (Urban Dynamics, 2004), see Figure 4.2.6.2.

About 2500 plant species of which 99 are listed as threatened species are known to be found in the Agulhas plain area. More than 112 species are not found elsewhere in the study area. The Elim Ferricrete Fynbos is an endangered vegetation type and is found nowhere else. Limestone Fynbos is also endemic to the Cape Agulhas Municipal Area. (Urban Dynamics, 2004)

Agriculture in the form of crop cultivation or grazing is noted as by far the most important threat to the loss of habitat in Renosterveld in amongst others, the Agulhas and Rûens plain. (De Villiers, 2005)

Table 4.2.6.1 and Figure 4.2.6.3 below show the different vegetation types and their corresponding conservation status in terms of the National Spatial Biodiversity Assessment.

| Vegetation Types | Conservation Status |
|---|---|
| Central Rûens Shale Renosterveld | Critically endangered |
| Western Rûens Shale Renosterveld | Critically endangered |
| Eastern Rûens Shale Renosterveld | Critically endangered |
| Rûens Silcrete Renosterveld | Critically endangered |
| Cape Inland Salt Pans | Endangered |
| Elim Ferricrete Fynbos | Critically Endangered |
| Agulhas Sand Fynbos | Endangered |
| Cape Lowlands Freshwater Wetlands | Vulnerable |
| Overberg Sandstone Fynbos | Critically endangered |
| Western Coastal Shale Band Vegetation | Least threatened |
| Overberg Dune Strandveld | Least threatened |
| Agulhas Limestone Fynbos | Vulnerable |
| De Hoop Limestone Fynbos | Least threatened |
| Southern Afrotemperate Forest | Least threatened |
| Cape Seashore Vegetation | Least threatened |
| Southern Coastal Forest | Least threatened |
| Freshwater Lakes | N/A |
| Notes: 1. Water habitats are not included in the conservation status assessment for vegetation type.<br>2. The conservation status categories apply *only* to remaining natural vegetation, i.e. they do not apply to areas where natural vegetation has already been lost. | |

**Table 4.2.6.1 National Conservation Status of Vegetation Types** (source: Urban Dynamics, 2004)

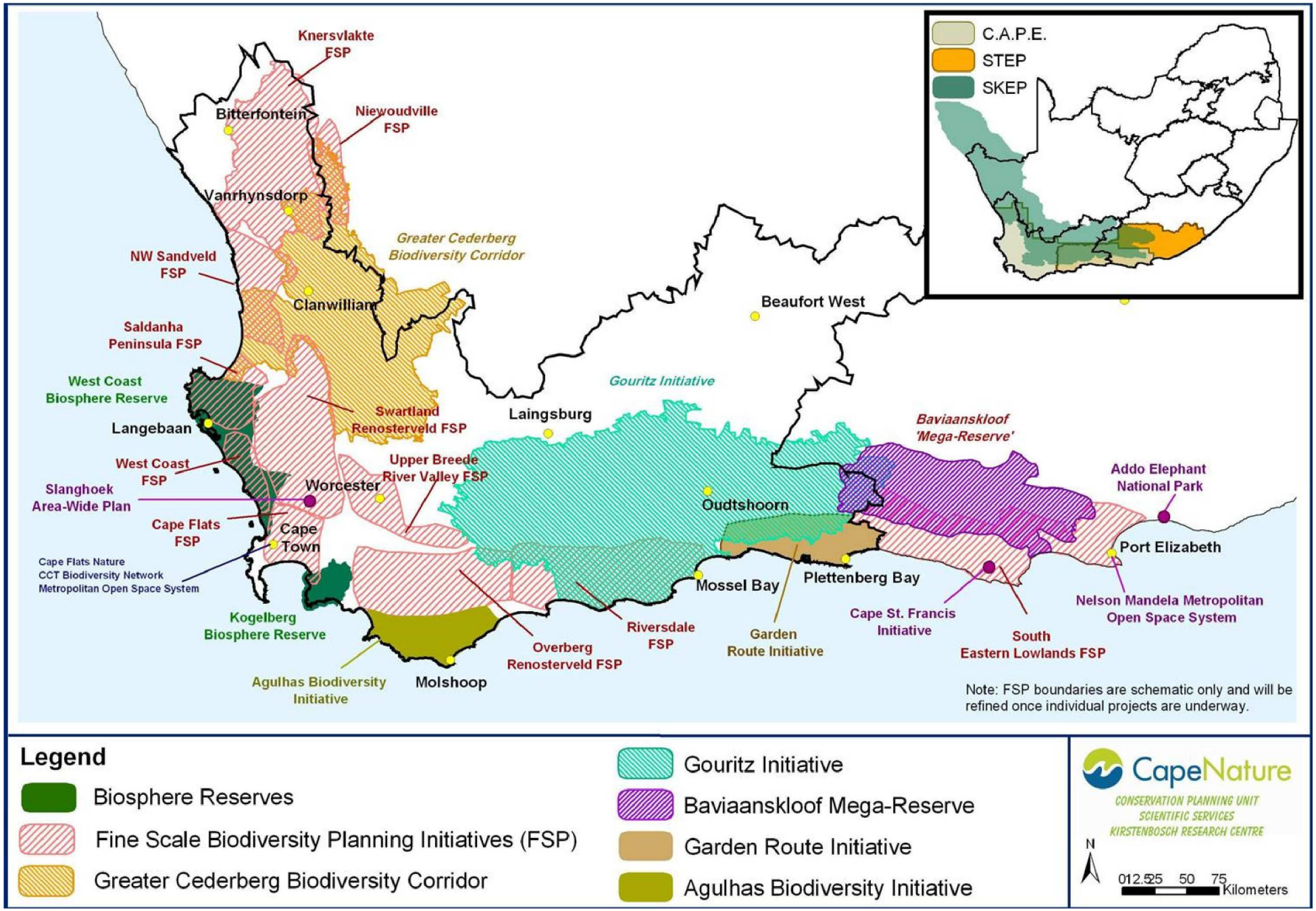



**Figure 4.2.6.1 Biodiversity and Agricultural Planning Initiatives** (source: Cape Nature)

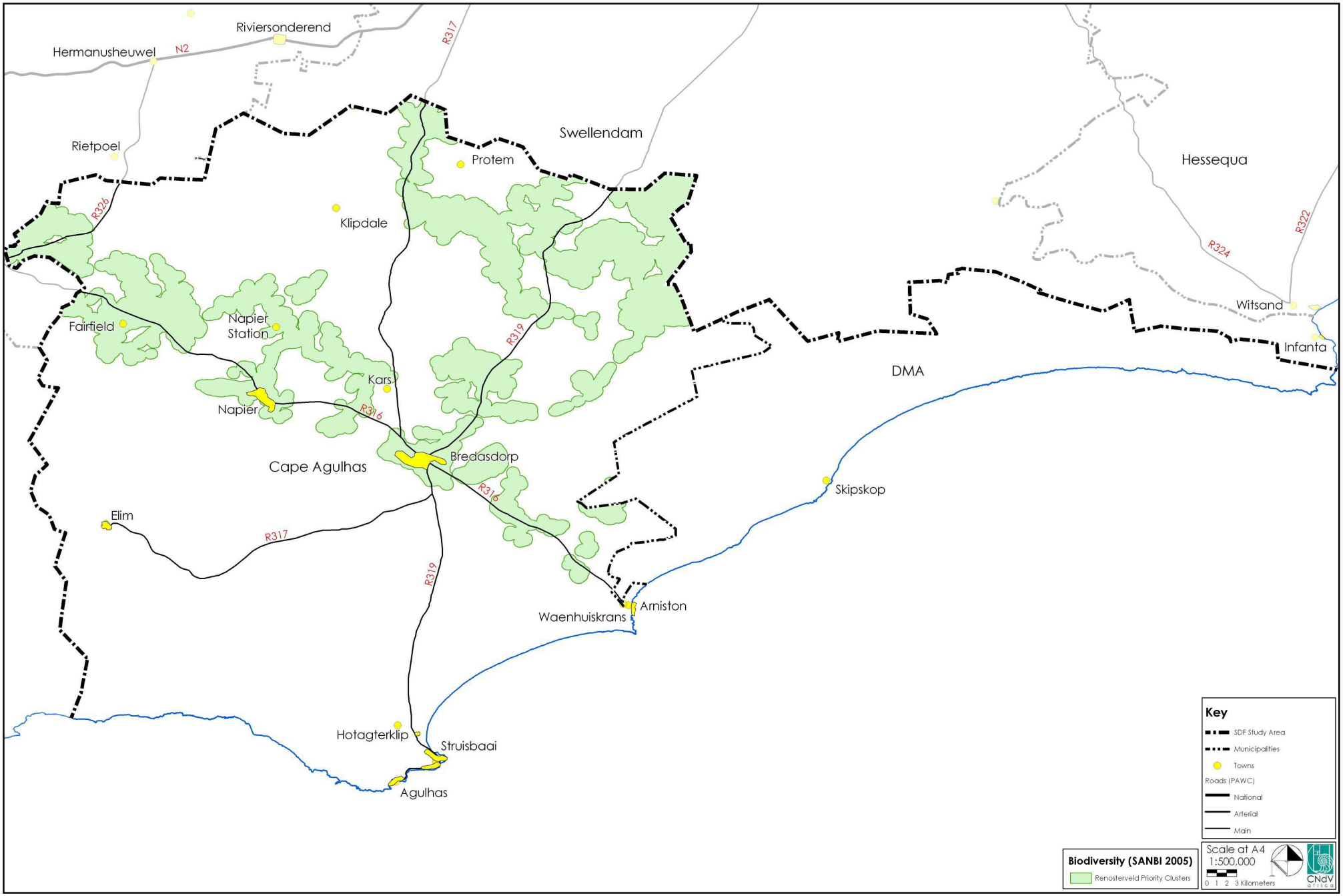



**Figure 4.2.6.2 Renosterveld Priority Clusters**

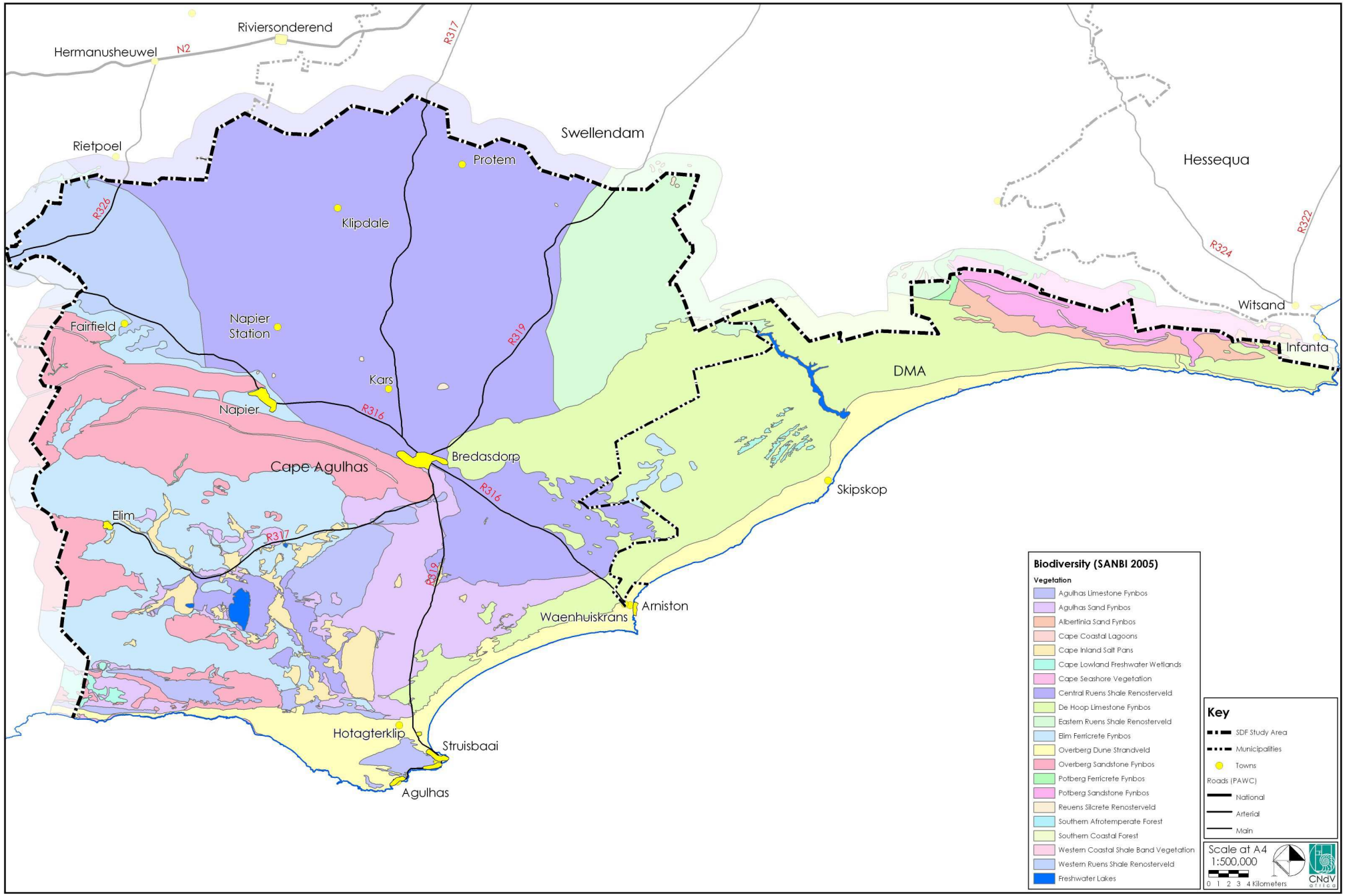



**Figure 4.2.6.3 Vegetation Types**

### 4.2.7 Conservation Areas and Marine Coastal Management

The Agulhas Biodiversity Initiative was launched by SANParks as a cross-sectoral conservation initiative in the Agulhas Plain, see Figure 4.2.6.1.

When Figure 4.2.5.1 is compared with Figure 4.2.7.1 it can be seen that the majority of the conservation worthy areas, i.e. critically endangered and endangered areas, are not under any formal conservation status.

Figure 4.2.7.1 and Table 4.2.7.1 below shows the various conservation initiatives in the Municipality, namely: National Parks, Private Nature Reserves, Provincial Nature Reserves, Local Authority Nature Reserves and National Heritage Sites (Paapekuilfontein) and their respective areas.

| Type of Conservation | Ha | Total Ha |
|---|---|---|
| Agulhas National Parks | | **13186 ha** |
| **Provincial Nature Reserves** | **Ha** | **33 777ha** |
| De Hoop | 32177 | |
| De Mond | 927 | |
| Soetendalsvlei | 406 | |
| Waenhuiskrans | 267 | |
| **Local Nature Reserves** | **Ha** | **905ha** |
| Heuningberg | 905 | |
| **Private Nature Reserves** | **Ha** | **2410ha** |
| Andrewsfield | 978 | |
| Brandfontein-Rietfontein | 634 | |
| Brian Mansergh | 72 | |
| Heunings River | 293 | |
| Jan Malherbe | 245 | |
| Rhenosterkop | 188 | |
| The Lagoon 2 PNR | ..... | |
| De Walle | ..... | |
| Freshwater Sands | ..... | |
| **National Heritage Sites** | **Ha** | **1422ha** |
| Brandfontein | 407 | |
| Paapekuilfontein | 827 | |
| Renosterkop | 188 | |
| | **TOTAL** | **51 700ha** |

**Table 4.2.7.1 Terrestrial Conservation Areas**

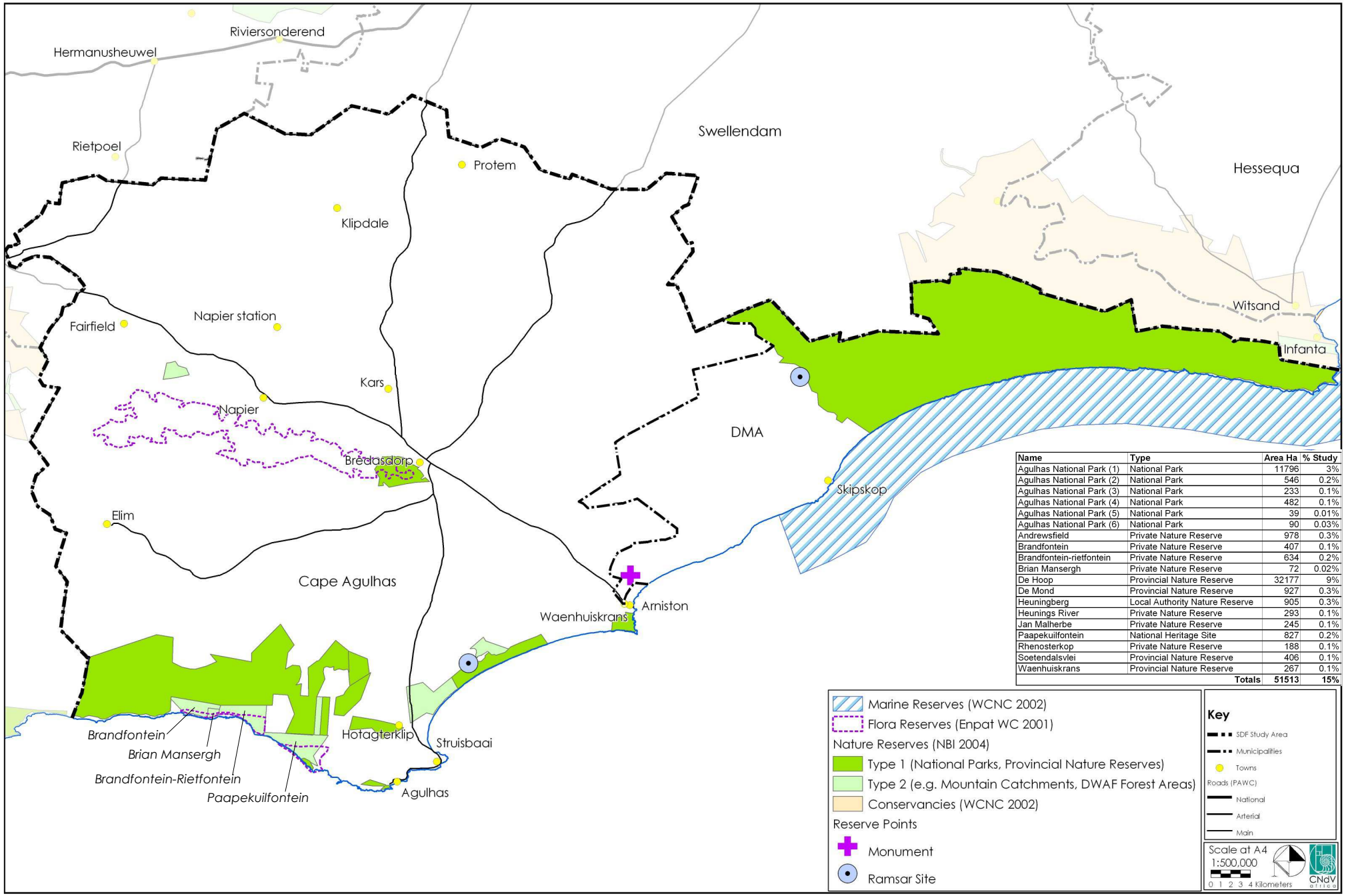
Figure 4.2.7.1 also shows that most of the former DMA Municipal area is comprised of the De Hoop Nature Reserve. The marine area, 6km wide, between Skipskop and Infanta is protected and forms part of the De Hoop Marine Reserve.

Figure 4.2.7.2 shows the special habitats in the study area that are significant for the support of biodiversity in the study area:

- Wetlands (Note : many wetlands on the ground are not represented on this map as they are currently not mapped anywhere);
- Silcrete patches: these form prominent outcrops in the landscape and are difficult to plough through and then often serve as habitats for indigenous vegetation; and
- Indigenous forest patches: these are protected by law and are either Milkwood thicket or Dune thicket in the study area. The largest patch is in the form of flora reserves along the Soetendalsvlei. The other areas, where these can be found, are along the major rivers, such as the Heuningnes, Nuwejaars and Kars. The Milkwoods generally occur along the base of the limestone ridges, along riparian areas and with deeper soils. The Dune thickets form in transition zones, between duneveld and strandveld vegetation along the coastline.

Fine scale planning was done to guide the conservation actions towards priority sites and to influence land use planning, in the study area.

The Putting Biodiversity Plans to Work two year project was undertaken by the Botanical Society (Botsoc) and aimed to mainstream the use of systematic conservation plans in the land use planning and decision-making also to prevent habitat loss in priority biodiversity conservation areas. This was done for the Cape Agulhas area.




| Name | Type | Area Ha | % Study |
|---|---|---|---|
| Agulhas National Park (1) | National Park | 11796 | 3% |
| Agulhas National Park (2) | National Park | 546 | 0.2% |
| Agulhas National Park (3) | National Park | 233 | 0.1% |
| Agulhas National Park (4) | National Park | 482 | 0.1% |
| Agulhas National Park (5) | National Park | 39 | 0.01% |
| Agulhas National Park (6) | National Park | 90 | 0.03% |
| Andrewsfield | Private Nature Reserve | 978 | 0.3% |
| Brandfontein | Private Nature Reserve | 407 | 0.1% |
| Brandfontein-rietfontein | Private Nature Reserve | 634 | 0.2% |
| Brian Mansergh | Private Nature Reserve | 72 | 0.02% |
| De Hoop | Provincial Nature Reserve | 32177 | 9% |
| De Mond | Provincial Nature Reserve | 927 | 0.3% |
| Heuningberg | Local Authority Nature Reserve | 905 | 0.3% |
| Heunings River | Private Nature Reserve | 293 | 0.1% |
| Jan Malherbe | Private Nature Reserve | 245 | 0.1% |
| Paapekuilfontein | National Heritage Site | 827 | 0.2% |
| Rhenosterkop | Private Nature Reserve | 188 | 0.1% |
| Soetendalsvlei | Provincial Nature Reserve | 406 | 0.1% |
| Waenhuiskrans | Provincial Nature Reserve | 267 | 0.1% |
| | **Totals** | **51513** | **15%** |

The Agulhas Coast has several large bays of which 43% are sandy beaches, 39% rocky and 18% wave cut rocky platform. (CNdV, 2005, 4-36 PSDF). A few of these beaches have been identified as susceptible to sea level rise due to climate change, see Figure 4.2.7.3.

The De Hoop Nature Reserve has about 50km of protected coastline.

The Integrated Coastal Management Programme (CMP) for the Western Cape in 2003 was prepared in terms of the Coastal Zone Management Bill and the Coastal Zone Policy. The objectives of CMP are to "facilitate improved planning of coastal resources and well as allow for better targeted investment from government and non government organisations to support sustainable coastal development." (source: DEA&DP, Western Cape Key Elements of the Integrated Coastal Management Programme.) The Coastal Zone Management Programme for the Western Cape notes defines the following coastal areas in the Cape Agulhas area, see Figure 4.2.7.3.

- important bird and other faunal/ floral species and estuaries;
- current or proposed development opportunities;
- current or proposed development opportunities; and,
- areas with important bird and other faunal/ floral species;

The Regulations promulgated in terms of the National Environmental Management Act, 1998 (Act 107 of 1998 – NEMA) requires that any development within 100m of the high water mark be subject to an Environmental Impact Assessment (EIA). This is to determine the possible impact of the proposed development on the sea environment and to ensure that there is adequate protection for development close to the sea given the concerns around sea level rise.

**Photo 4.2.7.1 Struisbaai** (source: The Overberg Inland from the Tip of Africa -Melanie Cleary, Karena du Plessis, struik)

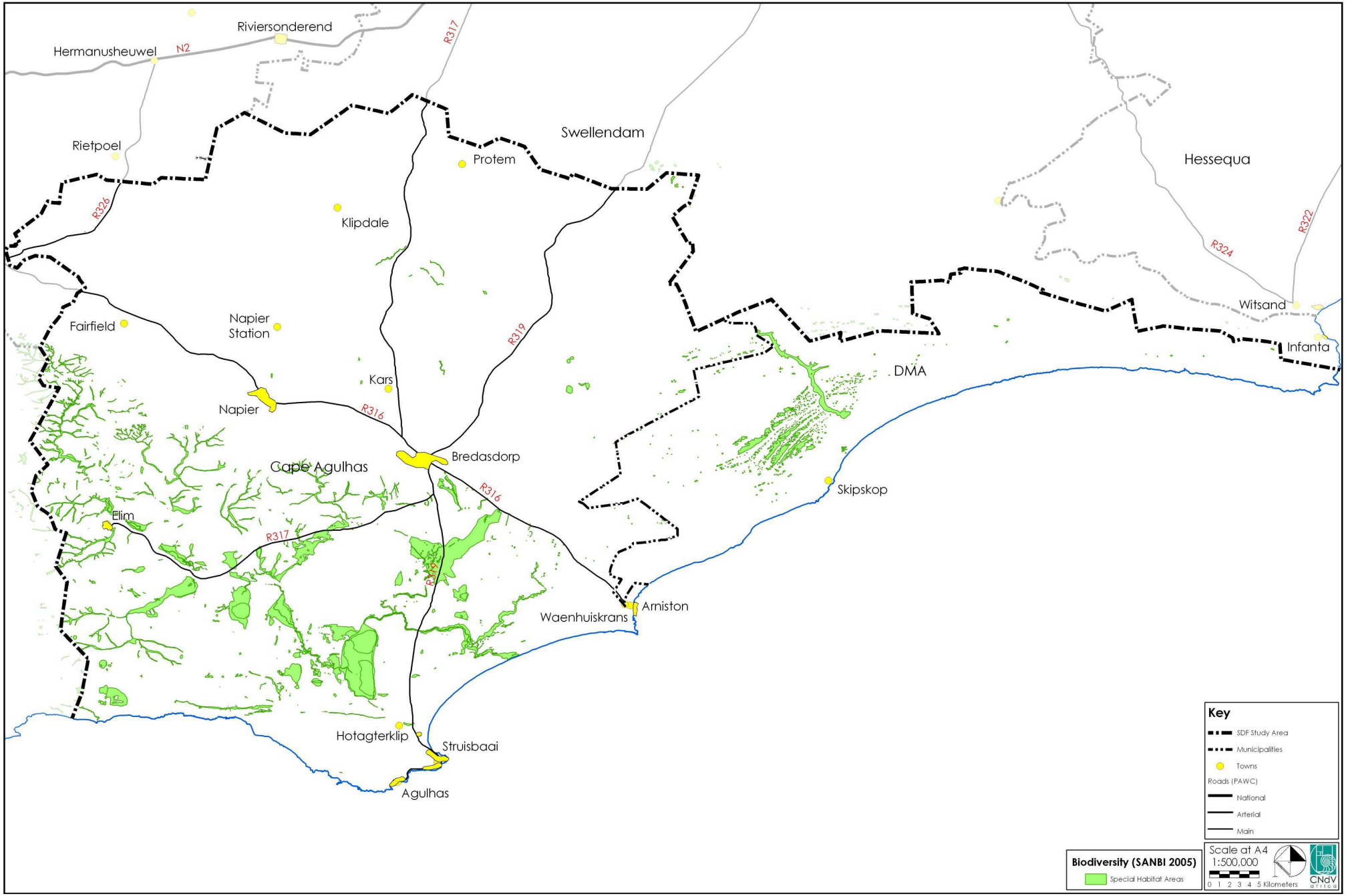



**Figure 4.2.7.2 Special Habitats**

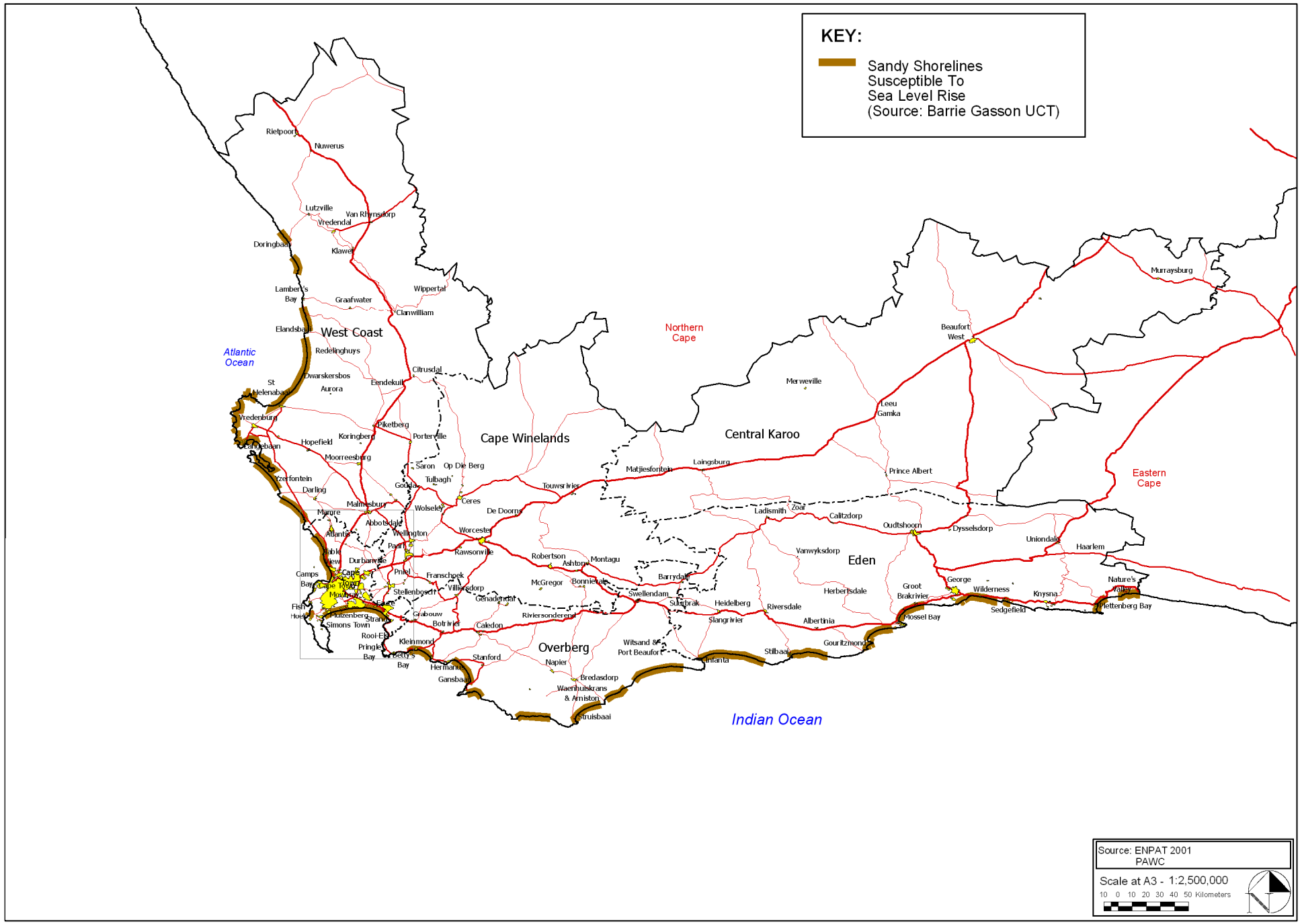



**Figure 4.2.7.3 Coastal Zone Management Map** (source: PSDF, 2005)

### 4.2.8 Agriculture

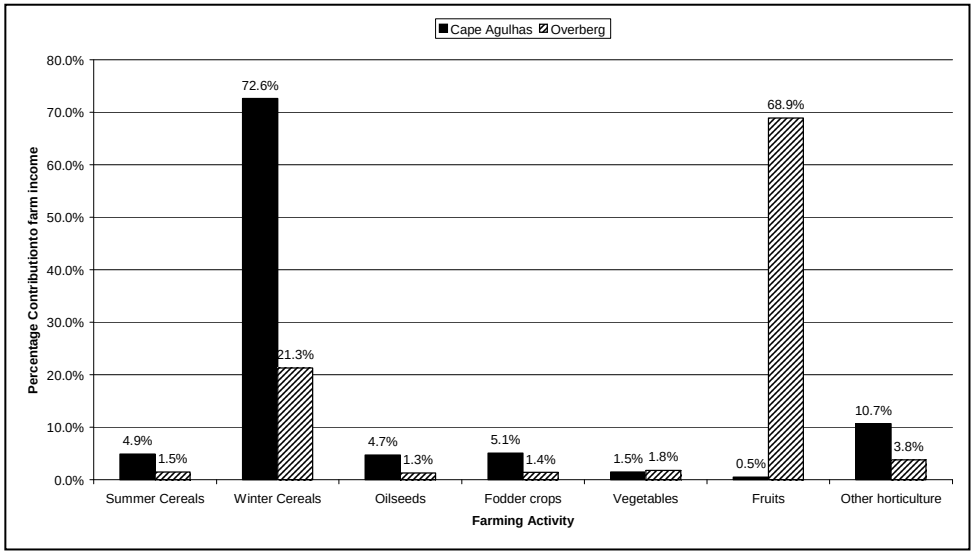
Farming is the dominant land use activity in the Cape Agulhas municipality. Table 4.2.8.1 below indicates the relative contributions of the different types of farming activities:

| Contribution to gross farm income by main activity (R'000) | | | |
|---|---|---|---|
| Summer Cereals | Maize for Grain | 5,215 | 4.2% |
| | Grain sorghum | 771 | 0.6% |
| Winter Cereals | Wheat | 50,694 | 41.1% |
| | Barley | 37,337 | 30.3% |
| | Other | 1,580 | 1.3% |
| Oilseeds | Sun flower seed | 104 | 0.1% |
| | Other | 5,669 | 4.6% |
| Fodder crops | Lucerne | 1,434 | 1.2% |
| | Maize for silages | 35 | 0.0% |
| | Other | 4,870 | 3.9% |
| Vegetables | Potatoes | 1,555 | 1.3% |
| | Green Mealies and sweet corn | 18 | 0.0% |
| | Onions | 198 | 0.2% |
| | Pumpkins | 88 | 0.1% |
| | Sweet Potatoes | 42 | 0.0% |
| Fruits | Deciduous | 585 | 0.5% |
| Other horticulture | Tea | 18 | 0.0% |
| | Cultivated and wildflowers | 12,952 | 10.5% |
| | Other | 194 | 0.2% |
| | **TOTAL** | **123,359** | **100%** |

**Table 4.2.8.1 Contribution to gross farm income by main activity** (source: (OAB, 2008)

Table 4.2.8.1 shows that the main contributors to the gross farming income and therefore the main farming activities in the municipality are Wheat (41,4%); Barley (30,3%) and Cultivated and wildflowers (10,5%). These make up 82,2% of the farming income of the Municipality.

Graph 4.2.8.1 compares the main farming contributors in the Overberg District and Cape Agulhas. There is a distinct difference between the two. Fruit farming contributes 68,9% to the farming income of the District but only 0,5% to the Municipality. The main contributor to farming income in the municipality is the winter cereals (72,6%) which is the second highest contributor in the District (21.3%).




**Graph 4.2.8.1 Comparison of contributions to farming income Overberg District vs Cape Agulhas** (source: OAB, 2008)

**Photo 4.2.8.1 Wheatfields** (source: The Overberg Inland from the Tip of Africa - Melanie Cleary, Karena du Plessis, Struik)

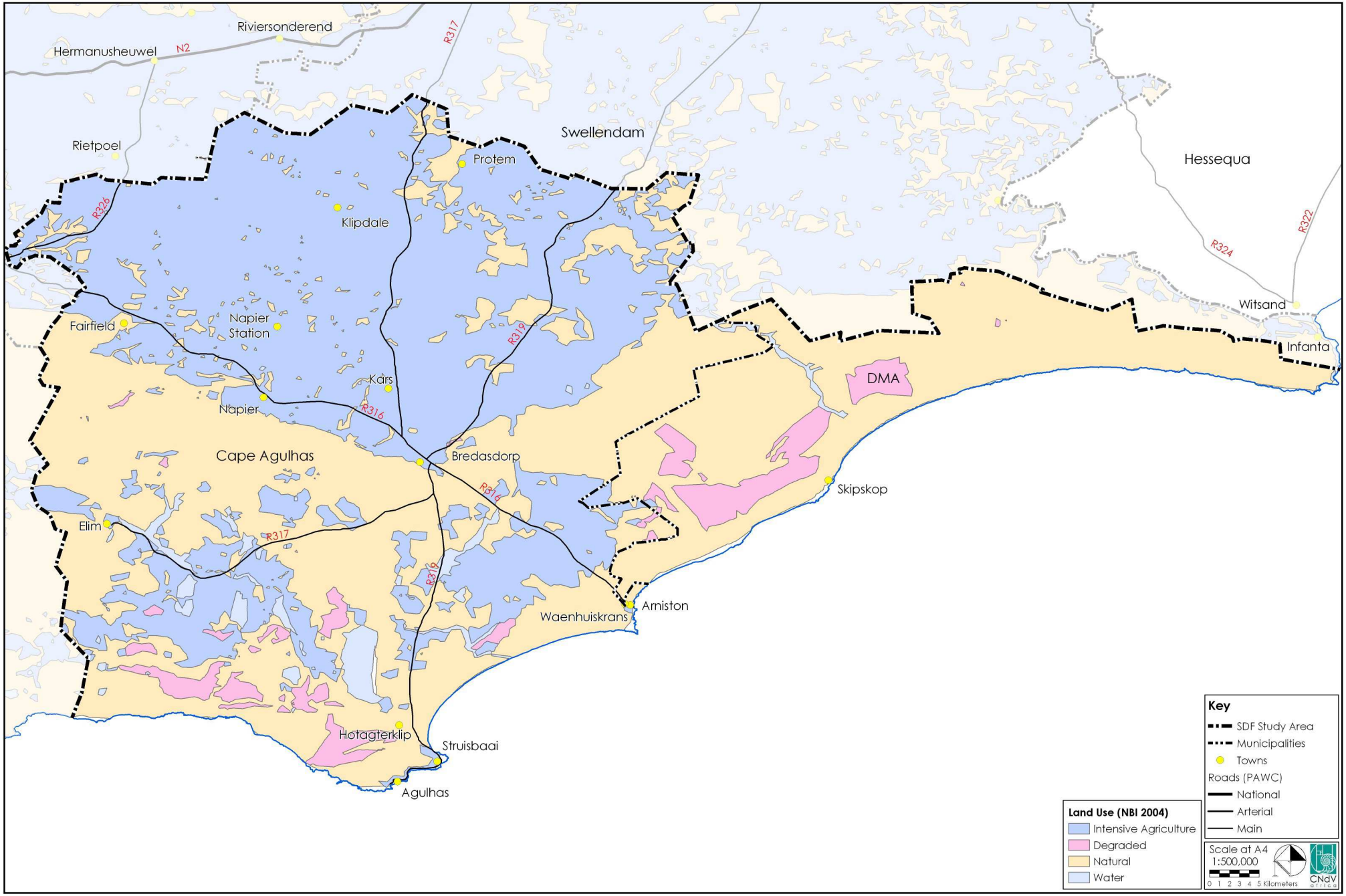



**Figure 4.2.8.1 Agriculture in the Municipality**

Extracts from the Area Based Plan (CNdV, 2008) relating to the different types of agricultural practices in the Overberg indicated the following for Wheat; Barley : Other crops; Fynbos; Olives; Dairy and sheep farming:

- ***Wheat***

The demand for wheat is driven by food and biofuel needs. The Wheat price is expected to rise even while the South African biofuels strategy is discouraging the use of staple food grains for bio-fuel production.

Key factors impacting on wheat production in the Overberg include:

- "Wheat production in the Overberg is likely to be less effected by global climate change than other production areas;
- Although high oil prices will affect wheat production it would appear that this will be offset by increasing food prices;
- Wheat farming is likely to remain a mainstay of agriculture in the Overberg as it is also very important for sheep farming;
- Although wheat consumption per capita is decreasing overall demand volumes are likely to increase due to population growth and overall demand increases from increasingly affluent populations in Asia, Middle East and Africa" (Source: CNdV, 2008)

- ***Barley***

Barley is used as a rotation crop in the Overberg District. Factors affecting barley production in the Overberg include:

- " As the Rand weakens and importing becomes more expensive a switch is expected to more local barley;
- There is a stable demand for barley as it is used to produce specific premium beers for which demand is growing over time" (Source: CNdV, 2008)

- ***Other Crops***

Other crops include Korog, Oats, Lucern and Lupines. These are all mainly used for crop rotation purposes and as animal feeds.

- ***Fynbos***

Fynbos products, in particular proteacae, are seen as a potentially large and profitable tourist attraction as well as being an eco-friendly and sustainable form of farming. It forms a growing export market into Europe and it is forecast as being able to tenfold over the next decade. However, the crop may be vulnerable to downturns in the European consumer and luxury market in the short and medium term.

- Proteas, Honey bush and Buchu are indigenous to the Western Cape and better quality plants can be grown here than elsewhere, for example, Australia; (Source: CNdV, 2008)

- ***Olives***

Although Olive production in the Overberg is a relatively small industry more than 70% of SA's demand is imported. There has been growing local demand as a result of the increased cost of imports and the growing health awareness of the importance of a Mediterranean diet. (Source: CNdV, 2008)

**Photo 4.2.8.2 Fynbos Proteas** (source: The Overberg Inland from the Tip of Africa - Melanie Cleary, Karena du Plessis, Struik)

- ***Dairy***

Production in the Overberg is dominated by corporate producers including Parmalat, Nestle, Lancewood, Morning Milk and Ladismith Cheese.

- Due to its more even rainfall spread the Overberg enjoys a comparative advantage in milk production and is able to utilize pastures with a minimum of balanced feed rations;
- Because a relatively high milk producer price is expected in the medium term the Overberg should be in a good position to capitalize from this;
- The Overberg's comparative advantage will be further strengthened by its relative efficiencies in producing grain, an important input into dairy farming which will become more expensive in other local and international growing regions due to the impact of the bio-fuel industry. " (Source: CNdV, 2008)
- There is currently a fairly successful dairy land reform project in Elim.


**Photo 4.2.8.3 Overberg Cheese** (source: The Overberg Inland from the Tip of Africa - Melanie Cleary, Karena du Plessis, Struik)

- ***Sheep (wool/meat)***

- Prices for wool are expected to increase in the medium term due to demand from China but increased production from Australia is expected to put downward pressures on price;
- The growth of synthetic and cotton fibres also fuelled by Chinese demand is expected to have a dampening effect on wool prices in the short term;
- Mutton prices are not expected to change much in the short term but will grow increasingly after 2010;
- Similar to dairy production sheep farming enjoys a comparative advantage in the Overberg due to the all year round rainfall pattern. (Source: CNdV, 2008)

**Photo 4.2.8.4 Sheep farming** (source: The Overberg Inland from the Tip of Africa - Melanie Cleary, Karena du Plessis, Struik)

## 4.3 SOCIO-ECONOMIC CONDITIONS

### 4.3.1 Demographic Profile

#### 4.3.1.1 Ethnic Groupings

The Cape Agulhas Municipality has a population of 26 182 excluding the DMA (Source: Census, 2001) comprising the ethnic groups as shown in Table 4.3.1.1 below. The Coloured group is in the majority, namely 68,8%, with the Whites and African/ Blacks at 25,5% and 5,6% respectively. Overall Coloureds comprise 68,7%, whites 25,6% and African / Blacks 5,5%. The Indian/ Asian population is negligible. In the municipality 91.8% of residents speak Afrikaans at home and 3.7% speak English.

| Ethnic group | CAM | CAM % | DMA | DMA % | TOTAL | % |
|---|---|---|---|---|---|---|
| African / Black | 1460 | 5,6% | 18 | 3,5% | 1478 | 5,5% |
| Coloured | 18 013 | 68,8% | 334 | 65,1% | 18347 | 68,7% |
| Indian/ Asian | 35 | 0,1% | 0 | 0,0% | 35 | 0,1% |
| White | 6 674 | 25,5% | 161 | 31,4% | 6835 | 25,6% |
| **TOTAL** | **26 182** | **100%** | **513** | **100%** | **26695** | **100%** |

**Table 4.3.1.1 Ethnic Groupings** (source: Dennis Moss Partnership, 2004)

#### 4.3.1.2 Growth Rate

The population growth rate between 2001 and 2006 is estimated at 2,5%. If this growth rate continues over a ten year period the increase in population would be about 5 700 people. Table 4.3.1.2 below shows the population per settlement and the anticipated growth per settlement, given the average growth rate of 1,7% pa for 2006 to 2010 Note the growth rate between 2001 and 2006 is 2,1%. (Provincial Treasury, 2006) The total population is estimated to 32 360 by 2011.

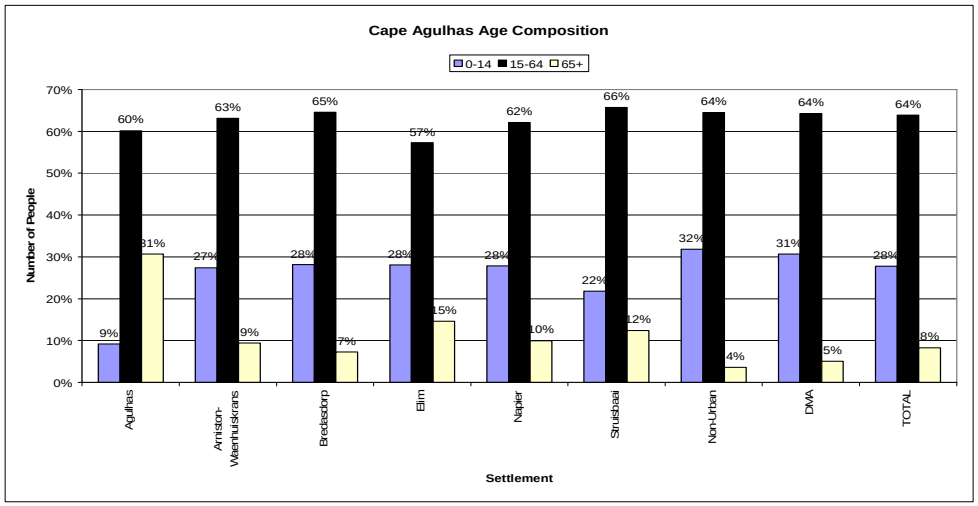
The population density is 10.86/ km².

| Place | 2001 Population | 2010 Est. Population | 2030 Projected Est. Population | 2030-2010 |
|---|---|---|---|---|
| Agulhas | 391 | 474 | 664 | 190 |
| Arniston-Waenhuiskrans | 1 251 | 1 517 | 2125 | 608 |
| Bredasdorp | 12 750 | 15 458 | 21656 | 6198 |
| Elim | 1 306 | 1 583 | 2218 | 635 |
| Napier | 3 226 | 3 911 | 5479 | 1568 |
| Struisbaai | 2 768 | 3 356 | 4702 | 1346 |
| Non-Urban | 4 490 | 5 443 | 7625 | 2182 |
| DMA | 512 | 618 | | |
| **TOTAL** | **26 694** | **32 360** | **44469** | **12727** |

**Table 4.3.1.2 Growth Rate** (source: Urban Dynamics, 2004)

#### 4.3.1.3 Age Structure

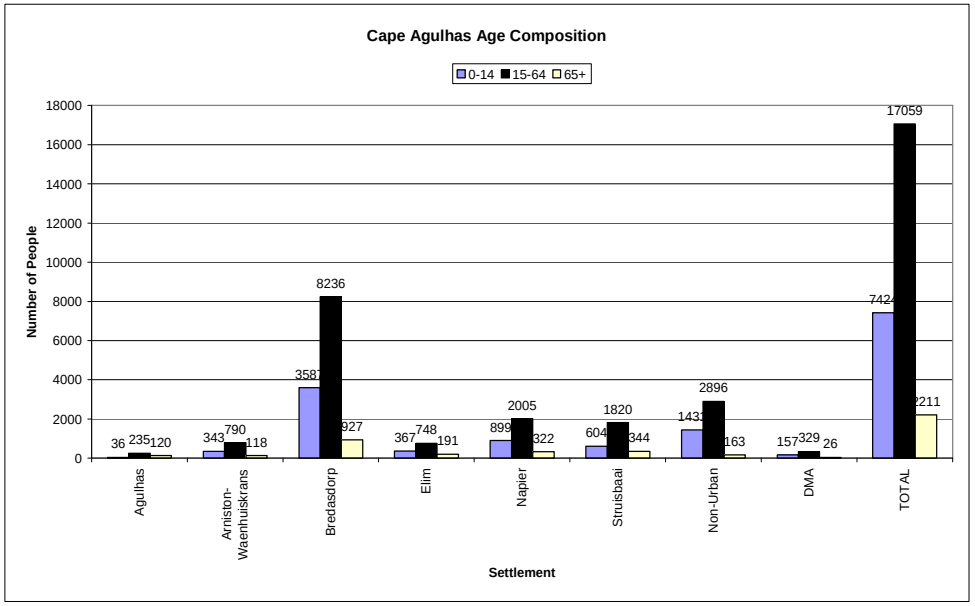
Graph 4.3.1.1 below shows the population age structure of Cape Agulhas and DMA Municipality.




**Graph 4.3.1.1 Age Structure percentage of settlement** (source: Treasury, 2006)

Graph 4.3.1.1 (Provincial Treasury, 2006) p 71 below shows the age structure indicating that Cape Agulhas has a fairly young population with 72% of the population being 29 years old and younger in 2006.

The retirement nature of Agulhas is clearly seen with its bias towards the 65+ population although its overall population is extremely small.
Graph 4.3.1.2 shows the population in absolute terms. It can be seen that the 28% of the population, i.e. 7424, is aged between 0 and 14 years old. Approximately 17 059 of the population, 64%, is aged between 15 and 64 years old, i.e. the economically active population age groups. About 2211 or 8% of the population is in the retirement age category i.e. older then 65 years old.




**Graph 4.3.1.2 Age Structure** (source: Treasury, 2006)

The settlement with the highest percentage of economically active population is Bredasdorp with 66%, followed by the non-urban areas of the Municipality with 65%, see Graph 4.3.1.2.

The settlement with the highest percentage retirees (i.e. people over 65 years old is Agulhas with over 31% followed by Elim with 15%.

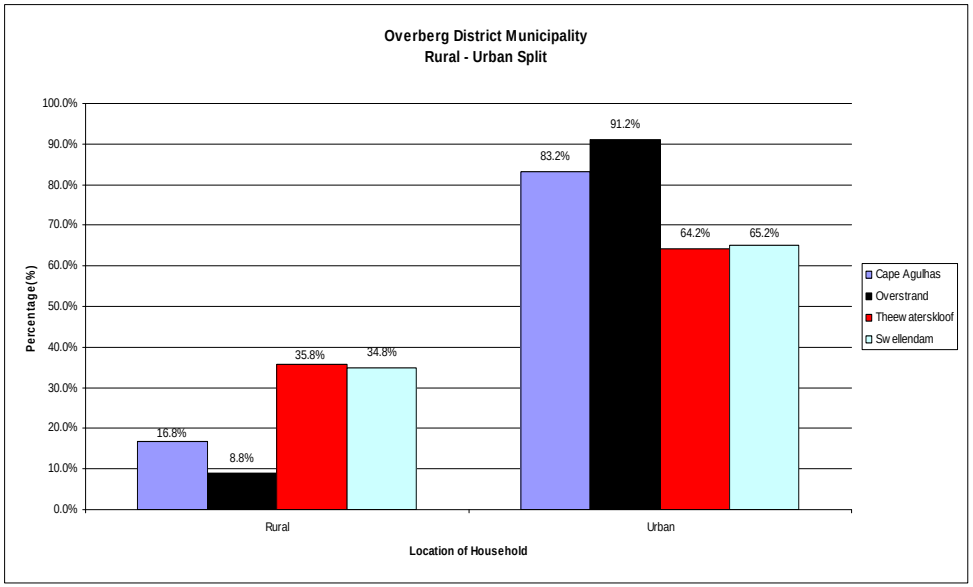
The settlements with the highest percentage of people younger than 14 years old are Napier, Bredasdorp, Elim and the non-urban areas.

### 4.3.1.4 Gender

The gender structure is fairly equal with the males being 48,5% of the population and (50,46% for the district population) and the females being 51,5% of the population (49,54% of the district population).

### 4.3.1.5 Urbanisation

According to Census 2001, 58% of the urban population of the former Cape Agulhas reside in Bredasdorp. 83% of the population of the municipality (4490) is urbanized, see Graph 4.3.1.3. The only other municipality in the Overberg district more urbanized than Cape Agulhas is the Overstrand at 91%.




**Graph 4.3.1.3 Rural – Urban Split** (source: Treasury, 2006)

### 4.3.1.6 Migration

The net migration into the CAM municipality amounted to 302 in 2001. The total migration following 2001 to 2005 was high and the estimates shows that this will flatten towards 2022. Whites followed by Coloureds are projected to have the highest net migration years in the future.

### 4.3.1.7 Population Distribution

Graph 4.3.1.2 above shows that the majority of the population resides in the Bredasdorp, 12 750, followed by Napier, 3 226 and Struisbaai 2 768. The entire DMA had 512 people.

Figure 4.3.1.1 shows the population distribution throughout the municipality. This map clearly shows the larger concentrations of people are located around the urban settlements namely Bredasdorp, Napier, Arniston, Struisbaai and Elim. The rural areas of the district municipality are sparsely populated with declining concentrations of people towards the east and almost no people in the DMA.

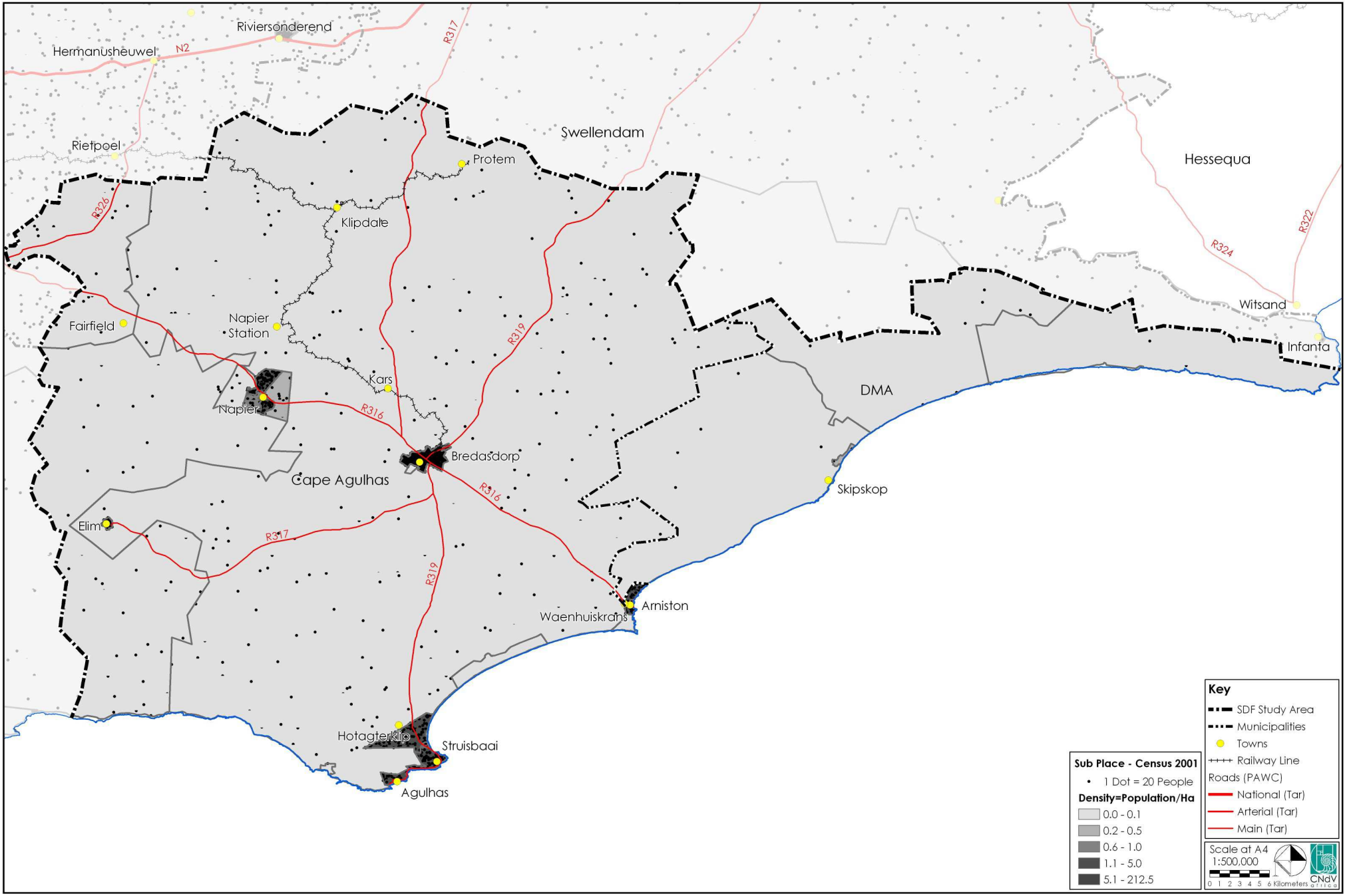



**Figure 4.3.1.1 Population Density**

## 4.3.2 Health

Figure 4.3.2.1 shows the distribution of the health facilities (clinics and hospitals) throughout the Municipality. This distribution is generally aligned with the population distribution shown in Figure 4.3.2.1. Most of the health facilities are located close to the urban settlements of the municipality. No health facilities are located north of Bredasdorp and in the DMA.

Table 4.3.2.1 below shows the health care practitioners and institutions in the Cape Agulhas (source : Jan Palm Consulting Engineers, 2006)

| Institution / Practitioner | Bredasdorp | Napier | Struisbaai & Agulhas | Arniston / Waenhuiskrans | Elim |
|---|---|---|---|---|---|
| Provincial hospitals | 1 | - | - | - | - |
| Private hospitals | - | - | - | - | - |
| Private clinics | - | - | - | 2 | - |
| Municipal clinics | - | - | - | - | - |
| ODM Clinics, mobile – and satellite clinics | 1 | 1 | 3 | 2 | 1 |
| General practitioners | 4 | 1 | 2 | - | 1 |
| Dentists | 4 | - | - | - | - |
| Veterinary services | 2 | 1 | 1 | - | - |
| Old age homes | 1 | 1 | - | - | - |
| Pharmacy with clinics | 1 | - | 1 | - | - |
| Tattooists | - | - | - | - | - |
| Mortuaries and funeral homes | 1 | 1 | 0 | - | - |
| Pathological laboratories* | - | - | - | - | - |
| Psychologist | - | - | - | - | - |
| Private caring* | 1 | 1 | 1 | - | - |

**Table 4.3.2.1 The Health Care Practitioners and Institutions in Cape Agulhas**
(source: Jan Palm Consulting Engineers, 2006)

**KEY:**
**Bredasdorp** - The Provincial hospital in Bredasdorp acts as a regional facility. There are two general practitioners and two clinics namely at the pharmacy and the ODM clinic. There are one each of the following practitioners/facilities; dentists, old age homes, funeral parlours, veterinary surgeons and Hospice units. The Bredasdorp Hospice is still in the initial stages and do not generate HCRW.
**Napier** - There is no hospital, private clinics or dentists in Napier. There are however one GP, one ODM clinic, one old age home, one funeral parlour and one veterinary surgeon. The Hospice in Napier is not yet fully operational. It is listed for future reference but do not generate HCRW.
**Struisbaai/Agulhas** - There are no hospitals, dentists or private clinics. There is an ODM clinic in Struisbaai with two mobiles functioning in Agulhas farming community. There are two GP's, one veterinary surgeon assisting and one private caring practitioner, also running a private clinical service.
**Arniston/Waenhuiskrans** - The two private clinics belong to OTB and Airforce. The one ODM clinic has no satellite.
**Elim** - There is one ODM clinic and one general practitioner.

This table shows that there is one hospital situated in Bredasdorp and two private clinics, both located in the Arniston Waenhuiskrans area and two pharmacies with clinics at Bredasdorp and Struisbaai. There are Overberg Ditrict Municipality clinics in Bredasdorp, Napier, Struisbaai – Agulhas, Arniston-Waenhuiskrans and Elim. (Jan Palm Consulting Engineers, 2006)

Bredasdorp is the only settlement that has a dentist.

The nurse / patient ratio is 1 nurse per every 33 patients. This is better than the target of 1:34. however, in The Overberg Municipality the average is 1:29. (Provincial Treasury, 2006)

The percentage of births under 2,5kg is 13%. This rate is higher than the national target of 10% and the ODM average of 16%. (Provincial Treasury, 2006)

The HIV/ AID prevalence rate at 2005 was estimated to be 2,1% and it is expected to be 2,7% at 2010 with 382 deaths then compared to the 327 deaths in 2005. (Provincial Treasury, 2006)

To deal with the medical needs in the sparsely populated rural areas, the district runs a mobile clinic.

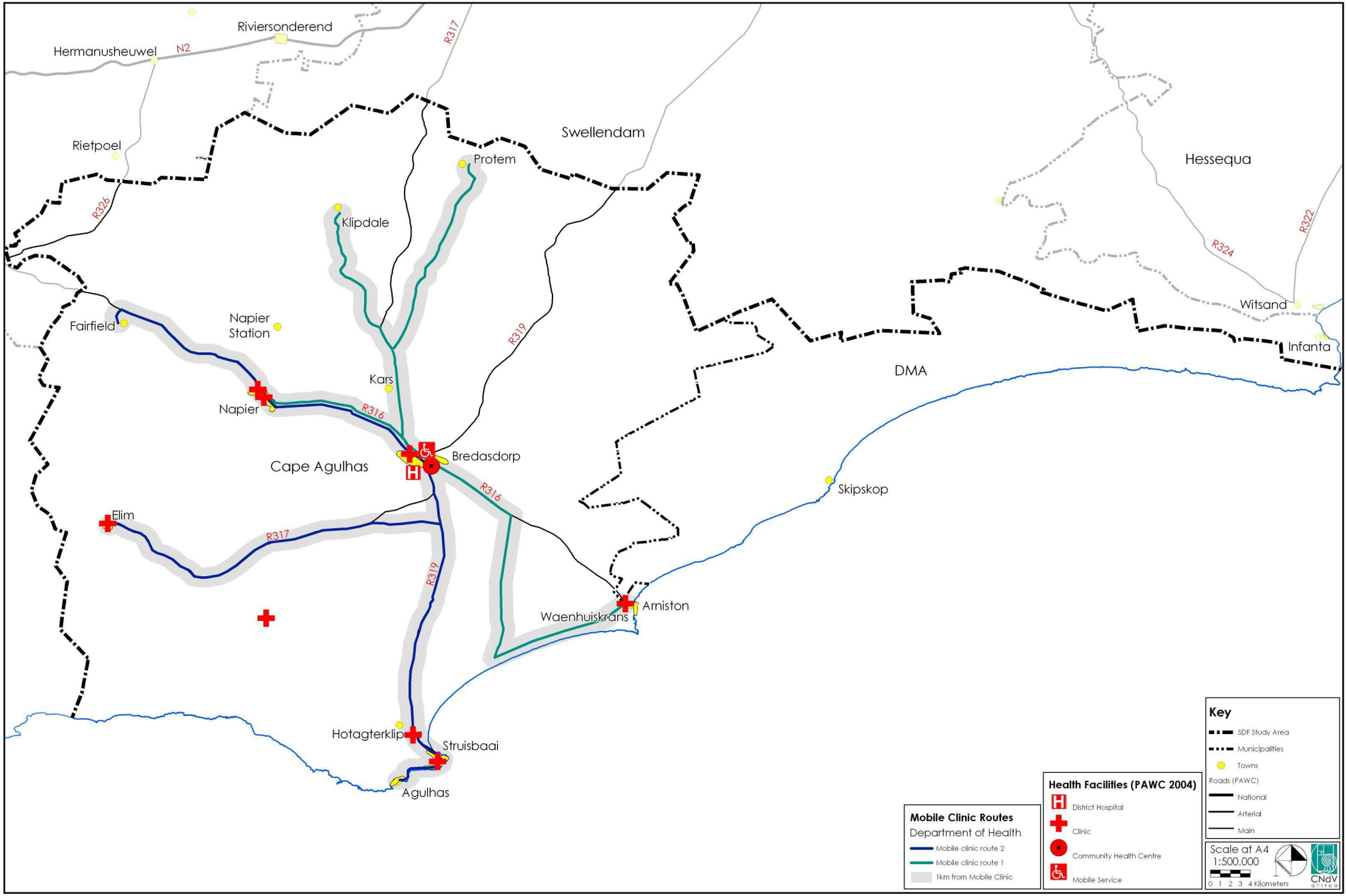



**Figure 4.3.2.1 Health Facilities and Mobile Clinic Routes**

### 4.3.3 Education

Figure 4.3.3.1 shows the distribution of educational facilities in the municipality.

School facilities are more evenly distributed through the municipality than the medical facilities. Again no facilities are located within the DMA and the western and northern areas (north and west of Bredasdorp) have the greatest concentration of educational facilities.

Table 4.3.3.1 below shows that the overall illiteracy level for the district has improved from 11,8% in 1996 to 10,7% in 2001 due to the reduction in Cape Agulhas and Overstrand whose levels improved from 9% and 9% in 1996 to 3% and 5% in 2001, respectively.

| Municipality | 1996 | 2001 |
|---|---|---|
| DMA | - | 1.0% |
| Theewaterskloof | 13.0% | 13.4% |
| Overstrand | 9.0% | 5.0% |
| Cape Agulhas | 9.0% | 3.0% |
| Swellendam | 15.0% | 20.7% |
| **TOTAL** | **11.8%** | **10.7%** |

**Table 4.3.3.1 Illiteracy Levels**

The figures in the above table includes functionally and totally illiterate.

The district has a learner - educator ratio of 37 learners to 1 educator using 77 schools. Provincial Treasury (2006) also noted that 27% of the district population over 14 had lower than a grade 7, and 36% of the Municipal population over 14 had lower then a grade 7 i.e. they are illiterate. This is very high.

7,3% of the district population and 13% of the Cape Agulhas population had no schooling at 2001. This is substantially higher than the Western Cape Average of 5,7%.(Treasury, 2006).

**Photo 4.3.3.1 Typical Farm School** (source: CNdV Africa, 2008)

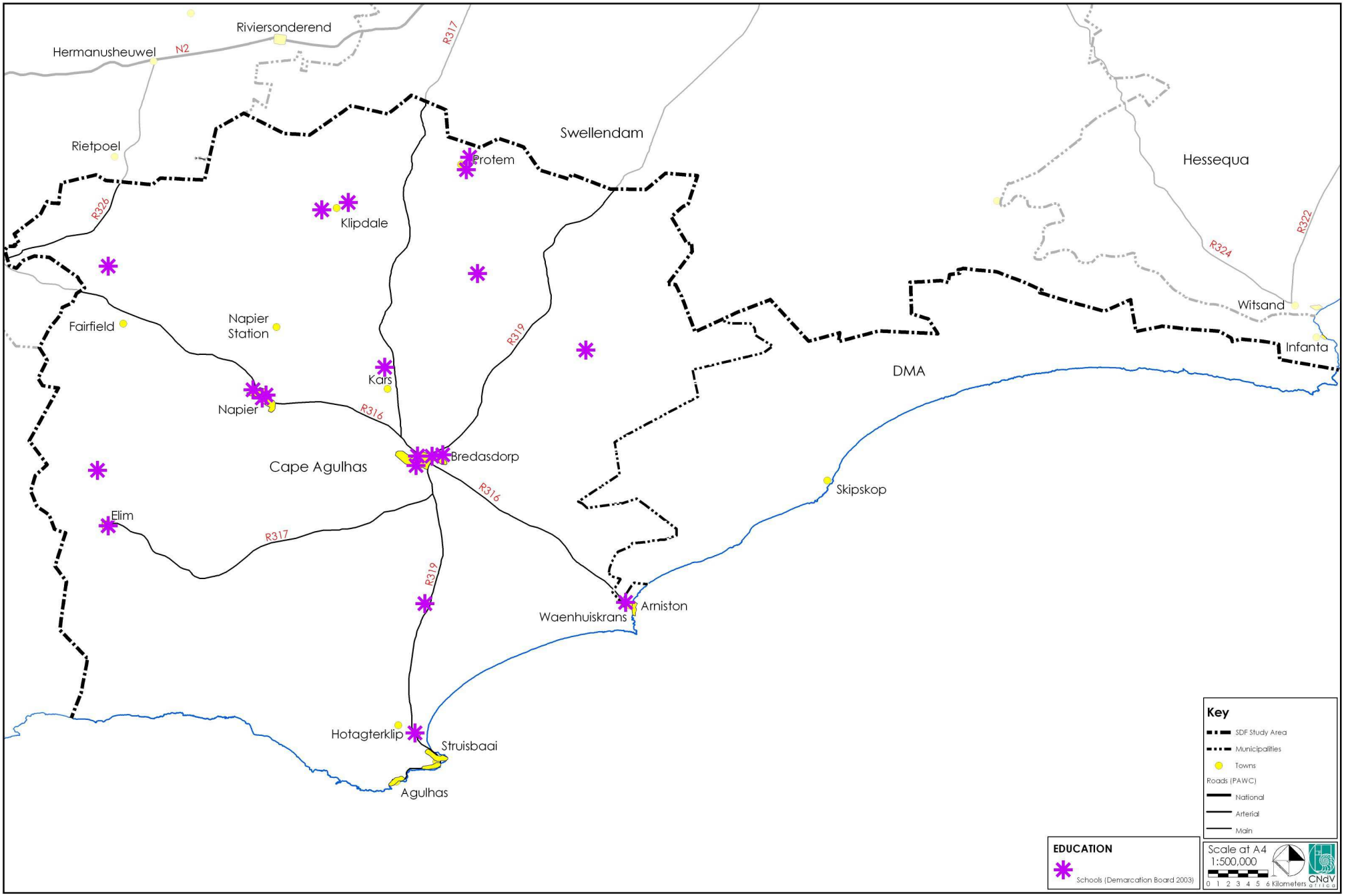



**Figure 4.3.3.1 Education**

### 4.3.4 Employment, Occupation and Income Levels

#### 4.3.4.1 Labour force

Table 4.3.4.1 below shows that there has been an increase of 20% in the labour force between 1996 and 2001 for the CAM with a corresponding decline in employment from 91 to 85%.

| Overberg District Municipality | Employed | % Employed | Unemployed | % Unemployed | Labour force | Labour force participation rate (%) | Not economically active | Total pop 15-65 years |
|---|---|---|---|---|---|---|---|---|
| 1996 | 7 765 | 91,1% | 759 | 8,9% | 8 524 | 64,0% | 4 800 | 13 324 |
| 2001 | 8 738 | 85,5% | 1 445 | 14,2% | 10 183 | 60,2% | 6 736 | 16 920 |

**Table 4.3.4.1 Labour Force** (source: Provincial Treasury, 2006)

#### 4.3.4.2 Employment and Unemployment

Provincial Treasury (2006) reports an unemployment rate of 14,4% for the Cape Agulhas Municipality which has increased from 8,9% in 1996. This growth in unemployment at 13.7% is extremely concerning. However, this is lower than the 18,6% for the Overberg District Municipality. The number of people employed is 8 738.

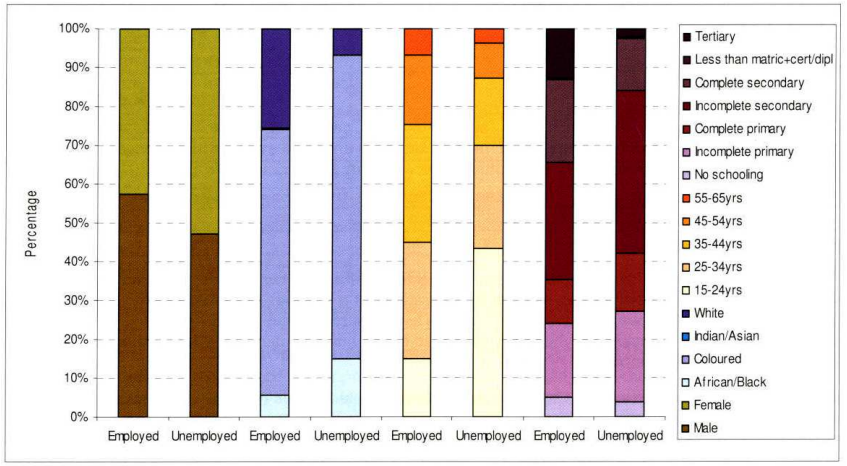
The Treasury notes that while the employment growth rate is 2,4%, that this growth rate cannot keep up with the unemployment growth rate of 13,7%. (Provincial Treasury, 2006)

Figure 4.3.4.1 shows that the highest concentration of unemployment can be found in and around Bredasdorp with the lower concentrations of unemployment on the eastern and western sections of the municipality.

Graph 4.3.4.1 shows the percentage unemployed and employed in relation to the following categories: gender, ethnic groups, age cohorts and education levels. (Treasury, 2006)

The above graph shows that:

- The split between the unemployed males and females are equal, however for those that are employed about 58% are males and 42% females;
- The percentage of 15-24 year olds unemployed is greater than (more then double) the percentage employed, whereas the inverse is true for the other age cohorts;
- The largest proportion of unemployed are those with incomplete high school education. Those with tertiary education make up the smallest component of those that are unemployed.




**Graph 4.3.4.1 Employment, and unemployment by gender, education, race and age (2001)** (source: Provincial Treasury, 2006)

#### 4.3.4.3 Sectors

According to the Western Cape Provincial Government (2010) there are four sectors that make large contributions to the Cape Agulhas local area. These sectors are:

- Finance and Business Services (26.2%);
- Agriculture, forestry and fishing (18.4%);
- Wholesale & retail trade; catering and accommodation (16.5%); and,
- Government, Community, social and other personal services (15.4%).

Manufacturing only contributes 8.0% to the total Cape Agulhas Local area outputs (Western Cape Provincial Government, 2010).

The Construction sector registered the highest average annual growth rate of 9.02% between 2001 and 2009. Other fast growing sectors are Finance and business services (7.06%); Government, community, social and other services (3.34%) and Electricity and Water (3.27%) (Western Cape Provincial Government, 2010).

Manufacturing had a negative average annual growth of -0.44%.

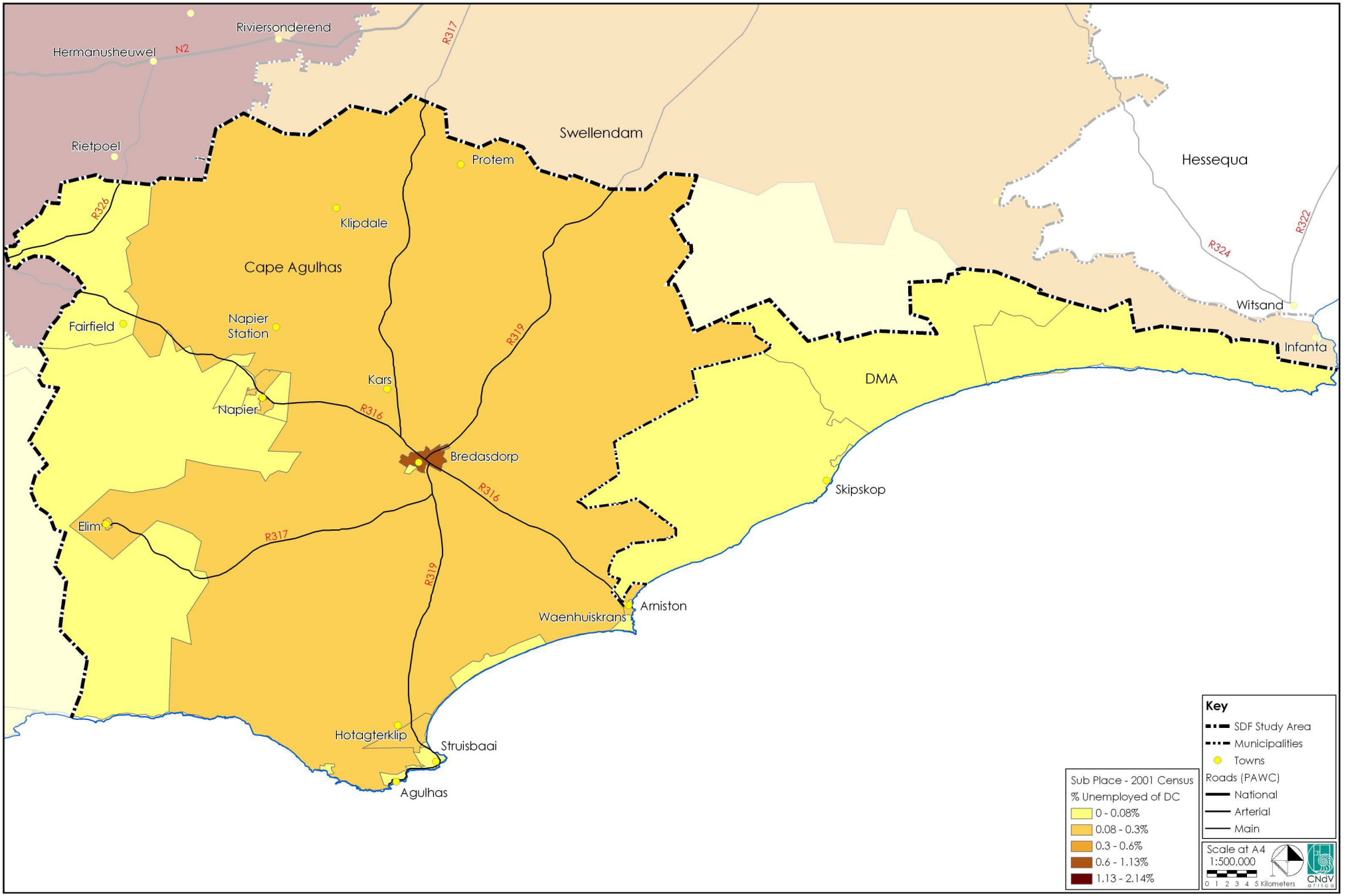



**Figure 4.3.4.1 Employment**

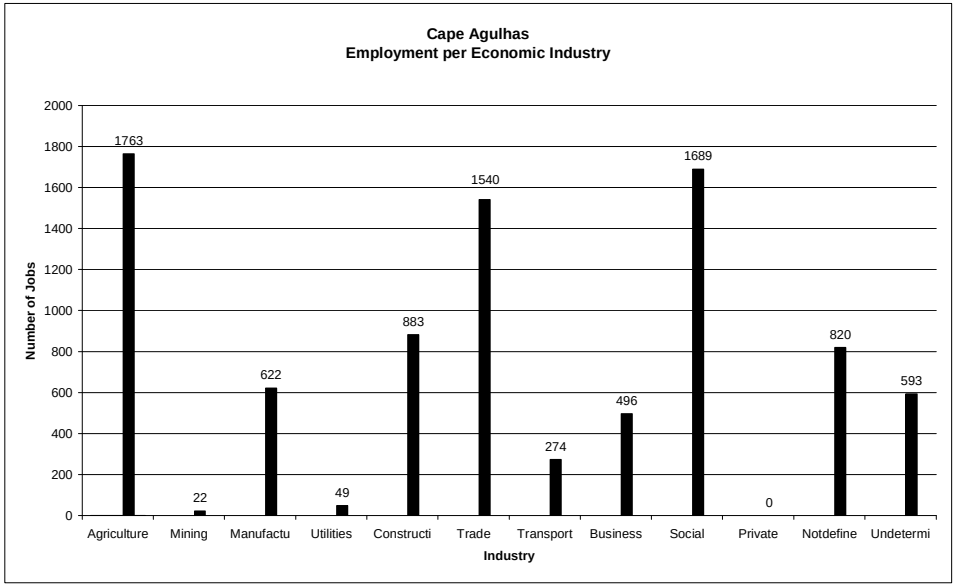
| Industry/Sector | GDPR 2009 Rm | % Contribution per sector 2009 | Average annual % Growth 2001-2009 | % Contribution to WC sectors 2009 |
|---|---|---|---|---|
| Agriculture, forestry and fishing | 185.2 | 18.4 | 2.24 | 1.958 |
| Mining | 0.05 | 0.0 | 1.07 | 0.012 |
| Manufacturing | 80.18 | 8.0 | -0.44 | 0.199 |
| Electricity and water | 35.60 | 3.5 | 3.27 | 1.015 |
| Construction | 46.93 | 4.7 | 9.02 | 0.417 |
| Wholesale & retail trade; catering and accommodation | 165.80 | 16.5 | 0.67 | 0.477 |
| Transport & communication | 75.70 | 7.5 | 2.77 | 0.313 |
| Finance and business services | 263.60 | 26.2 | 7.06 | 0.341 |
| Government, Community, social and other personal services | 154.65 | 15.4 | 3.34 | 0.423 |
| **Total** | **1007.13** | **100.0** | **3.27** | **0.424** |

**Source:** Western Cape Provincial Government, 2010

**Table 4.3.4.3.1 Sector contribution to GDPR in 2009 for Cape Agulhas local area**

Graph 4.3.4.2 below shows that Agriculture (20%), Social Services (19%) and Trade (18%) are the greatest employment generators in the Cape Agulhas Municipality.

This is particularly worrying seeing that Agriculture, the greatest employment generator, is on the decline according to Provincial Treasury




**Graph 4.3.4.2 Employment by Economic Industry** (source: Census, 2001)

### 4.3.4.4 Input – Output Analysis of the Economy

An input□output analysis is an evaluation of the economy that supports an understanding of the interaction that exists between supply and demand of commodities for each sector necessary to generate a certain level of output. This allows for an assessment of the multiplied impacts of future growth and the quantification of the input required to achieve the envisaged growth.

- **Alignment of sectors in Cape Agulhas economy and the Western Cape economies**

Due to a limitation of sector data for the Cape Agulhas economy, certain sectors are combined and Table 1 is restructured as follows: Rows 6 and 7 are combined to form "Trade, Transport and Accommodation", and rows 8, and 9 are combined to form a category "Services". The adjusted Table 4.3.4.3.1 is now referred to as Table 4.3.4.4.1.

| | Industry/Sector | GDPR 2009 Rm | % Contribution per sector 2009 |
|---|---|---|---|
| 1 | Agriculture, forestry and fishing | 185.211 | 18.4 |
| 2 | Mining | 0.049 | 0.0 |
| 3 | Manufacturing | 80.187 | 8.0 |
| 4 | Electricity and water | 35.609 | 3.5 |
| 5 | Construction | 46.938 | 4.7 |
| 6 | Trade transport and accommodation | 240.881 | 23.9 |
| 7 | Services | 418.255 | 41.5 |
| | **Total** | **1007.13** | **100.0** |

**Source:** Adapted from Western Cape Provincial Government, 2010

**Table 4.3.4.4.1 Sector contribution to GDPR of the Cape Agulhas economy in 2009**

- **Illustration and description of linkages between key sectors**

An understanding of the linkages between the sectors is required from a supply and demand side referred to receipts and expenditure respectively. The illustration provided below are provided for the key sectors of the Cape Agulhas Economy, i.e.. Figures 2, 3 and 4 illustrate the linkages between the key receipts and expenditures related to the Trade, Transport and Accommodation; Services, and Agriculture, Forestry and Fishing to the sectors.

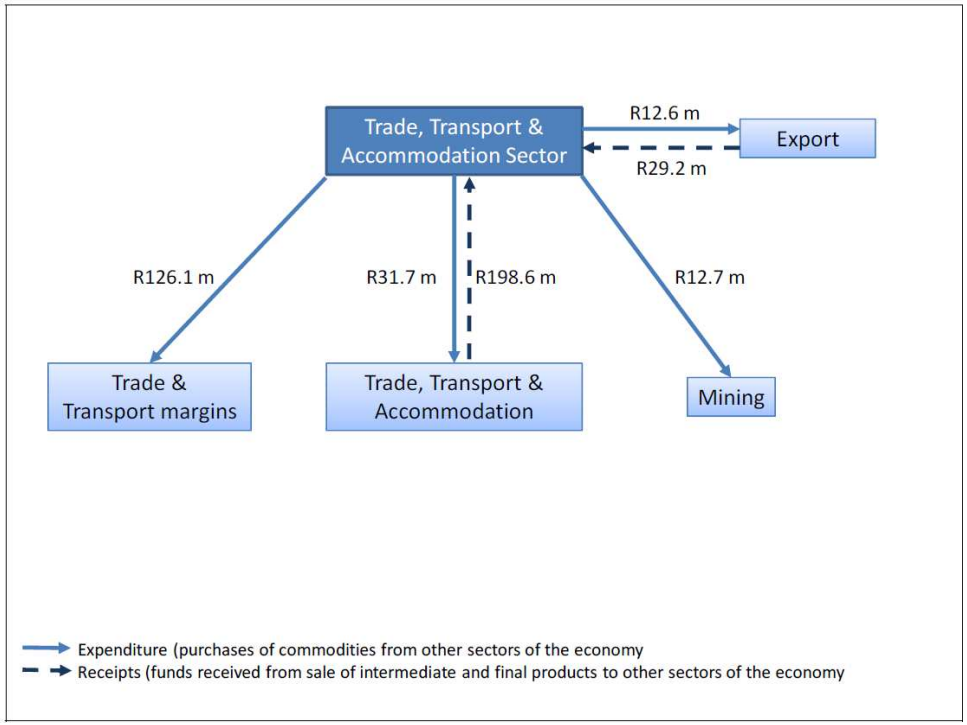



**Figure 4.3.4.4.1 An illustration of the linkages between key sector contributions to income (receipts supply) and the expenditure (demand) of the Trade, Transport and Accommodation sector**

An interpretation of the data illustrated in Figure 4.3.4.4.1 suggests that in terms of the receipts (supply of products and services), the Trade, Transport and Accommodation sector supplies R198,6 million to various industries within the sector. Exports generated R29,2 million in receipts for the sector. In terms of expenditure (demand), Trade and Transport Margins make up R126,1 million of expenditure. Also note that Trade and Transport Margins is not a sector per se, but reflects the mark□ups on Trade together with Transport costs paid by the sector to other sectors in the local economy.

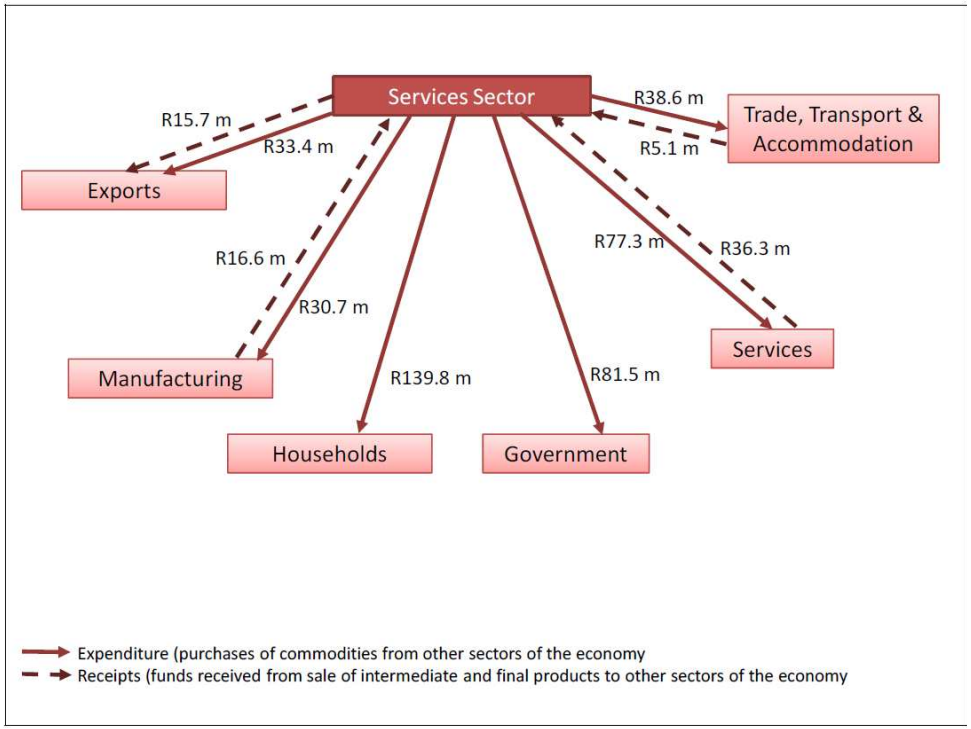



**Figure 4.3.4.4.2 An illustration of the linkages between key sector contributions to income (receipts □ supply) and the expenditure (demand) of the Agriculture, Forestry and Fishing sector**

An interpretation of the data illustrated in Figure 3 suggests that in terms of the receipts (supply of products and services), the Services sector supplies R15,7 million to Exports, R5,1 million to Trade, Transport and Accommodation, R36,3 million to industries in the sector itself and R16,6 million to Manufacturing. In terms of expenditure (demand) R139,8 million is demanded from Households, R81,5 million from Government, R77,3 million from the sector itself and R33,4 million from Exports (value of goods and services leaving the municipal area).

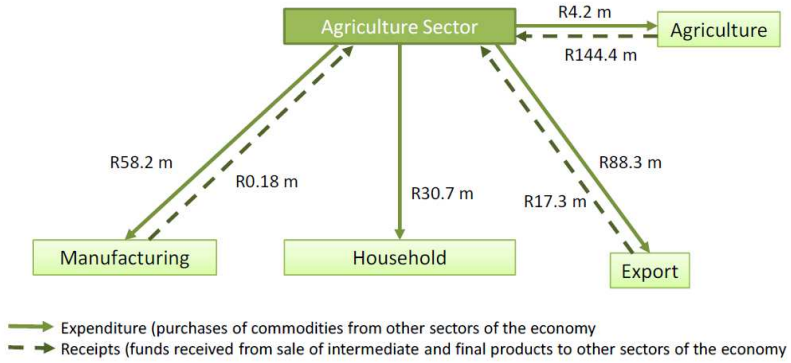



**Figure 4.3.4.4.3 An illustration of the linkages between key sector contributions to income (receipts - supply) and the expenditure (demand) of the Agriculture sector**

An interpretation of the data illustrated in Figure 4 suggests that in terms of the receipts (supply of products and services), the Agriculture sector supplies R144,4 million to the industries within the sector itself, R17,3 million to Exports and a low R0,18 million to Manufacturing. The latter suggests that limit value is added to the raw Agriculture product before it leaves the Cape Agulhas area. In terms of expenditure (demand), R58,2 million is demanded from Manufacturing, R30,7 million from Households, R88,3 million from exports (value of goods and services leaving the municipal area) and R4,2 million from the sector itself.

- **Input requirements to achieve the level of GRP**

Table 4.3.4.4.1 should be considered as a preliminary indication of the sector inputs required to achieve the GGP (value added) indicated for the Cape Agulhas economy in 2009.

| | Industry/Sector | GDPR 2009 Rm | Conversion factor | Inputs required Rm |
|---|---|---|---|---|
| 1 | Agriculture, forestry and fishing | 185.211 | 1.0115 | 183.103 |
| 2 | Mining | 0.049 | 0.9923 | 0.049 |
| 3 | Manufacturing | 80.187 | 1.0839 | 73.977 |
| 4 | Electricity and water | 35.609 | 1.0000 | 35.609 |
| 5 | Construction | 46.938 | 1.7953 | 26.144 |
| 6 | Trade transport and accommodation | 240.881 | 1.0000 | 240.881 |
| 7 | Services | 418.255 | 1.0076 | 415.082 |
| | **Total** | **1007.13** | **1.0331** | **974.846** |

**Note**: Conversion factor refers to the value addition added to input of a sector to achieve an output
**Source**: Multi-Purpose Business Solutions

**Table 4.3.4.4.1 Input values required to generate the level of GRP achieved in 2009 per sector**

The assessment provided in this report aims to provide an understanding of the linkages between sectors of the Cape Agulhas economy. The linkages could reflect either a receipt (funds obtained for the sector from the sale (supply) of goods and services) or an expenditure, which refers to the purchase of products and services required by the sector from other sectors in the economy, i.e. the demand.

The three main sectors of the Cape Agulhas economy in terms of GRP contributions are:

- Services
- Trade, Transport and Accommodation
- Agriculture, Forestry and Fishing

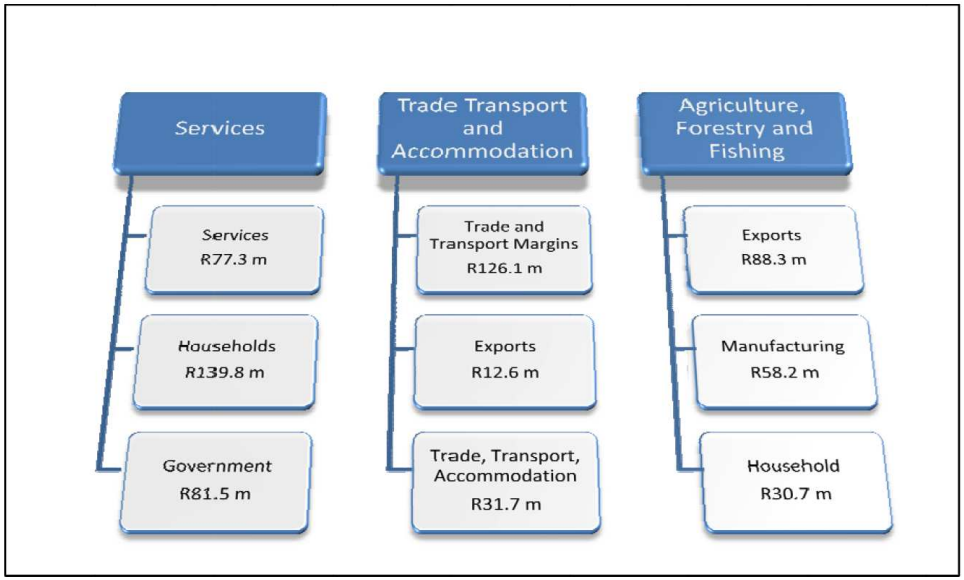



**Figure 4.3.4.4.4 Expenditure (demand) linkages with other sectors**

Inputs refer to the requirements of a process to produce an output (product or services). The higher the conversion factor the more value is added to the product. The assessment suggests that most of the value is added to inputs b the construction sector followed by Manufacturing and Agriculture.

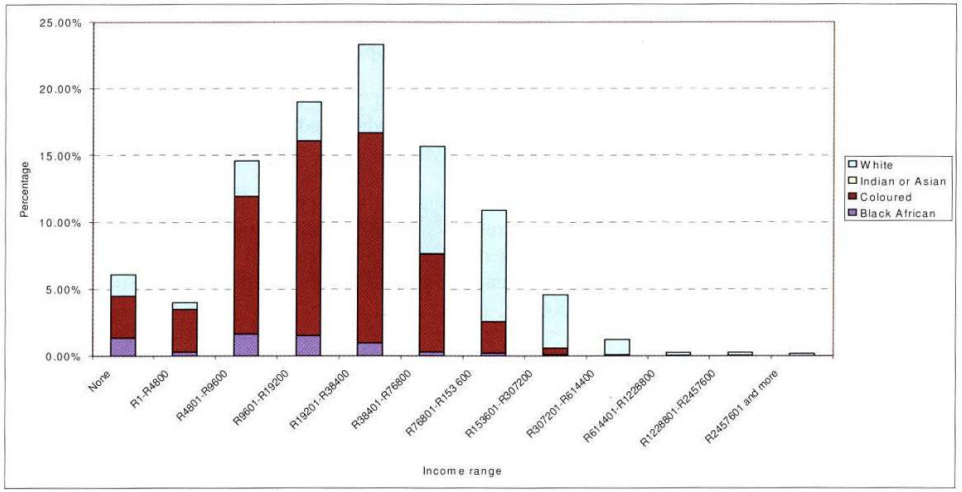
The focus on the development of the Cape Agulhas economy should be informed by the platform provided by an understanding of the linkages between the sectors. Identification of key sectors is important, but not

only in terms of its contribution to the GRP of the Municipal economy. A need exists to inform economic policy and strategy by developing sectors that support the key sectors and thereby limit the leakages that currently exist through the export of goods and services (through expenditure – demand).

### 4.3.4.4 Income

Graph 4.3.4.4 shows the household income per population group per annum. This graph reflects a relatively poor population with the majority of the households earning less than R3500 per month. The Whites are mainly high earners and the African/ Blacks generally the lower earners. The Coloureds are prominent in the middle income categories.

Treasury (2006) revealed that approximately 6,1% (457) of the households had no income. This is the second lowest in the District which average's 9,7% (Provincial Treasury, 2006)




**Graph 4.3.4.4 Income Distribution by Population Group for the Overberg**
(source: Provincial Treasury, 2006)

### 4.3.4.5 Local Economic Development

The local economic development plan or strategy that was completed in 2009 notes the sector contribution of the Cape Agulhas economy as depicted in Table 4.3.4.2.

| Sector | GDPR 2005, Rm | Growth 2004-2005 | Percentage contribution to Overberg District, 205 |
|---|---|---|---|
| Agriculture, forestry and fishing | 63.7 | 1.20 | 1.8 |
| Mining | 1.0 | -0.56 | 0.0 |
| Manufacturing | 100.4 | 5.00 | 2.8 |
| Electricity and water | 4.9 | 2.88 | 0.1 |
| Construction | 43.2 | 15.54 | 1.2 |
| Wholesale & retail trade; catering and accommodation | 89.9 | 7.19 | 2.5 |
| Transport and Communication | 38.8 | 7.29 | 1.1 |
| Finance and business services | 72.4 | 5.07 | 2.0 |
| Community, social and other personal services | 41.1 | 8.38 | 1.1 |
| General government services | 64.3 | 3.47 | 1.8 |
| **Total** | **515.9** | **5.46** | **14.3** |
| GDP @ constant 2000 prices (Rm) | | | |

**Table 4.3.4.2 Sector contribution to GDPR and growth, 2005**
(Source: LED Strategy, 2009)

Table 4.3.4.2 indicates the sector contributions towards the Gross Domestic Regional Product as well as the growth per sector between 2004 and 2005 and the overall percentage contribution to the Overberg District per sector for 2005. In this regard the manufacturing sector was the highest contributor during 2005 with a R63.7m contribution to the GDPR while contributing 1.8% to the Overberg District. Manufacturing was followed by wholesale and retail trade; catering and accommodation with a 89.9% contribution to the GDPR. The construction sector experienced a significant growth between 2004 and 2005 of 15.54. The mining sector is the smallest contributor to the GDPR and the District.

The LED strategy notes that Cape Agulhas Municipality has a number of strengths that give it a competitive advantage:

- It is one of the largest producers of agricultural products in the country and the continent;
- Is a very sought after tourism destination;
- Has an abundance of natural resources and a high scenic quality;

- The civil services infrastructure is in a sound condition and there is an availability of bulk basic services.

Even though the LED strategy notes competitive advantages there are a number of challenges that Cape Agulhas needs to deal with:

- a lack of employment opportunities resulting in high levels of unemployment;
- an economy that is very highly dependant on agriculture;
- there are very limited natural resources;
- the shortage of skills – there are high illiteracy levels which results in a high skills shortage;
- there are very few employment opportunities in the area and even fewer opportunities for the marginalised communities to enter the employment market;
- spatial segregation – marginalised communities are located away from the central business districts away from access to opportunities. Historically privileged groups are located closer to town and marginalised groups are located further away from town. They are often separated by transport or river corridors.

The LED strategy provides a number of development proposals for the settlements of the Municipality. The strategy further noted that the development proposals be aligned with the IDP and the SDF in order to ensure strategic spatial planning for the following initiatives:

| # | Town | Strategic Development Proposal |
|---|---|---|
| 1. | Bredasdorp | • Improve access to business and public facilities;<br>• Promote industrial development in the agri-processing industry;<br>• Introduce emerging farming initiatives;<br>• Promote agri-tourism initiatives;<br>• Promote recycling projects;<br>• Version of the station premises into a multi purpose business development centre;<br>• Improve the public transport system;<br>• Provide infrastructure for informal traders in the CBD;<br>• Upgrade the Heuningberg Nature Reserve;<br>• Golf course development. |
| 2. | Arniston / Waenhuiskrans | • Redevelop the harbour precinct;<br>• Infill residential development;<br>• Optimise the tourism potential;<br>• Provide pedestrian crossing in order to improve the access to the beach front and Waenhuiskrans cavern; |
| | | • Kiosk development linked to the upgrading of the ablution facilities for tourists;<br>• Accelerate airport development at Overberg Air force Base. |
| 3. | Struisbaai | • Integrate the north community with the town;<br>• Development tourism related activities, e.g. boutique hotel;<br>• Promote retail development in CBD;<br>• Upgrade harbour precinct and beachfront;<br>• Support the expansion and initiatives of the Hot-Agter-Klip farmstall project;<br>• Conserve the natural resources. |
| 4. | L'Agulhas and Suiderstrand | • Develop the iconic southern most tip linked to a marketing strategy in collaboration with SANParks;<br>• Develop a recreational facility at the beachfront;<br>• Provide a boat launching pad for private boat owners;<br>• Accelerate golf estate development;<br>• Occupation of all small holding units in Suiderstrand area. |
| 5. | Napier | • Emerging farming initiatives;<br>• Promote cultural historic heritage as a tourism attraction;<br>• Urban renewal strategy for the CBD;<br>• Provide infrastructure for the informal trading in the CBD;<br>• Develop retirement villages;<br>• Develop an arts and crafts centre;<br>• Improve the public transport system. |
| 6. | Elim | • Upgrade the basic infrastructure and services;<br>• Optimal utilisation of the fynbos and other wildflower species as economic commodities;<br>• Promote cultural historic heritage as a tourism attraction, e.g. unique wooden water wheel;<br>• Optimise the agricultural potential of available land;<br>• Introduce feasible viticulture. |
| 7. | Protem / Klipdale | • Emerging farming projects;<br>• Introduce periodic markets linked to mobile government services;<br>• Introduce agri-villages to private farm owners. |

**Table 4.3.4.3 Strategic Development Proposals per Town**
(Source: LED Strategy, 2009)

### 4.3.5 Land Reform

The Areas Based Plan for Land Reform in the Overberg District is currently being prepared for public presentation. When the document is in the public realm its findings and proposals will be included in this SDF.

Notwithstanding the above, it should be noted that there are currently only two land reform projects in the Cape Agulhas Municipal Area.

The fact that there are so few land reform projects currently in the municipality is a concern as this Municipal Area needs to make its contribution towards the target of transferring 30% of all white owned agricultural land to black ownership by 2014.

The above concern is worsened by the fact that nationally only an estimated 5% of the land has been transferred to date.

Currently there is about 275 243ha of agricultural land in the Municipal Area. This would mean that approximately 82 573ha of land needs to be transferred from white ownership to black ownership by 2014.

To date about 1,2% (2824ha) has already been transferred.

The only assumed major portion of "Black Owned Land" is the Elim settlement that is currently in the ownership of the Moravian Church. The Church provides the land for residential and agricultural use of the residents of Elim.

### 4.3.6 Cemeteries

The locations of the cemeteries in the Municipality are indicated on Figure 4.3.6.1.

The internal layouts of the proposed extensions to the cemeteries were informed by:

- Site geology;
- Carrying distances for coffins from the hearse to the grave site;
- Stormwater drainage requirements; and,
- Open areas required adjacent surface runoff routes.

The Local Authority recently appointed consultants to undertake the necessary land use applications required in order to extend the current cemeteries at Napier and Bredasdorp, erven 513 and 1148 respectively (PHS Consulting, 2011; Town and Country Town Planners, undated).

The applications required to permit the extension of the cemeteries were undertaken even though, at present, there is adequate space remaining in both the cemeteries due to the long lead time required for the planning processes and development.

**Bredasdorp**
The existing cemetery in Bredasdorp measures approximately 7.58ha. It is proposed to extend the cemetery to the north, west and south which will increase its capacity with an additional 4.08 ha.

**Napier**
A portion of Erf 513 is home to the existing Napier cemetery and measures approximately 1.63ha. It is proposed that the cemetery be extended in a south easterly direction increasing it by an additional 2ha, see Figure 4.3.6.2.

It is important to note that the extension of the Napier cemetery requires the amendment of the Urban Edge.

**Photo 4.3.6.1 Bredasdorp Cemetery** (source: www.eggsa.org)

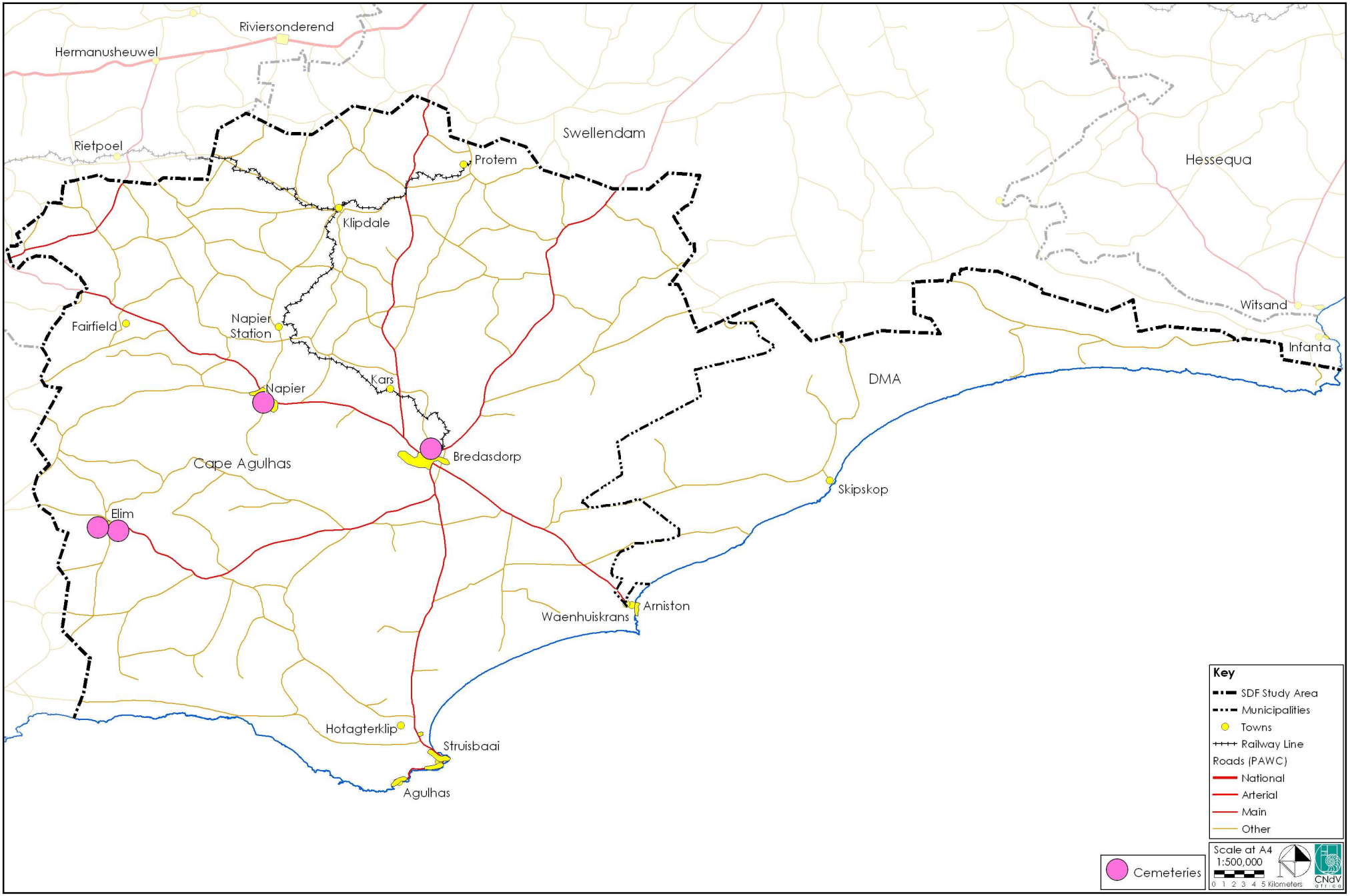



**Figure 4.3.6.1 Cemeteries**

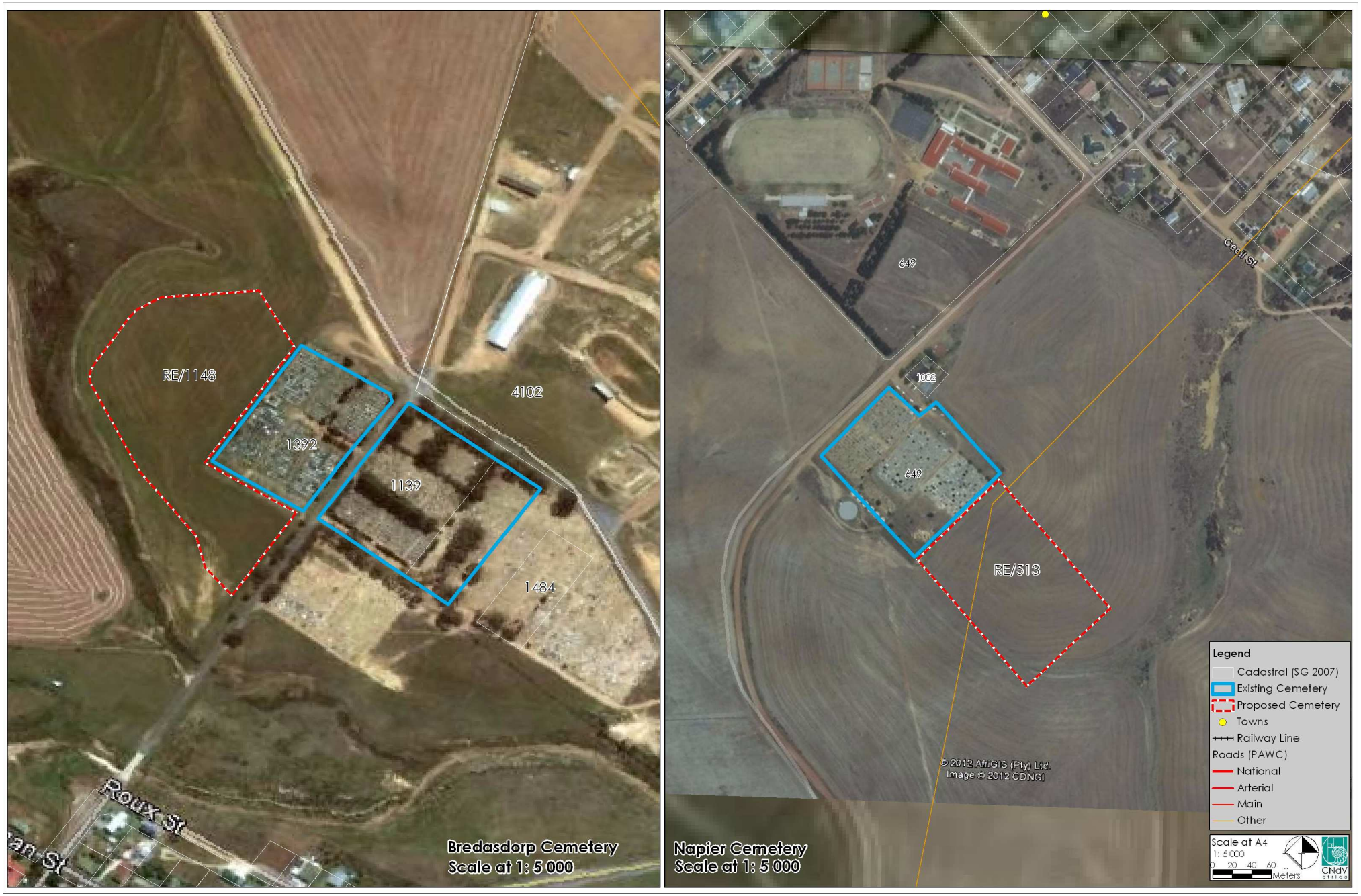



**Figure 4.3.6.2 Extensions to cemeteries at Napier and Bredasdorp**

### 4.3.7 Crime

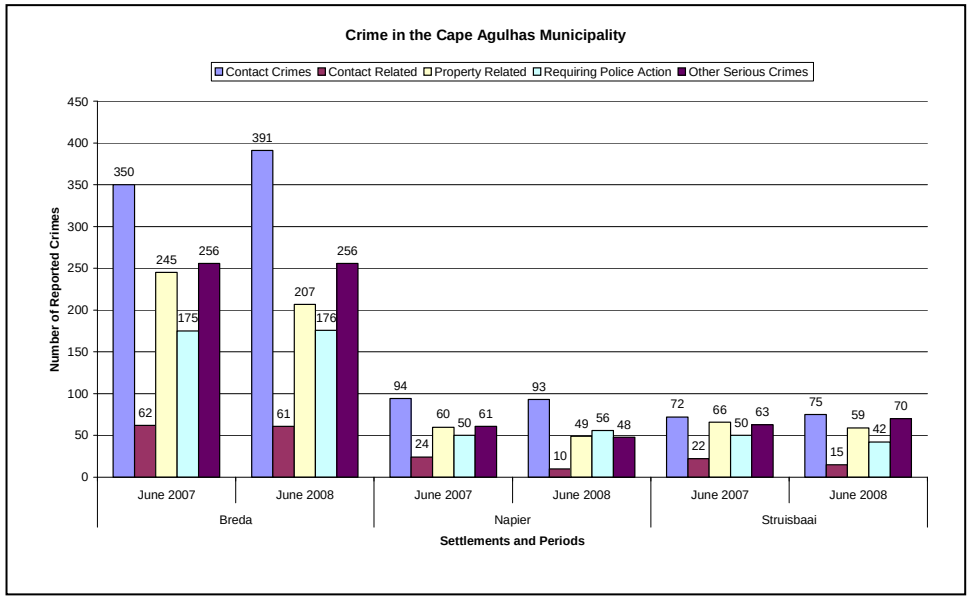
Although there has been an increase in crime nationally and in the Western Cape Province; and the western province and Gauteng are leading in crimes such as aggravated robbery, murder and serious assaults (violent crimes), none of the police stations in the Cape Agulhas Municipal area have been identified as priority crime stations. Priority crime stations are stations that have consistently shown high levels of crime over a period of time.

The police station precincts are: Bredasdorp, Napier and Struisbaai. A comparison of the five different categories of crimes for these station precincts are shown on Graph 4.3.7.1.

Graph 4.3.7.1 shows that Bredasdorp has recorded, at April 2008 (reported in June 2008), an increase in contact crimes (murder, assaults, rape, attempted murder, robbery) and a marginal increase in crimes requiring police action for detection. The other crime categories remained at the same levels as at April 2007 (reported in June 20007).

Napier has shown an increase in crimes requiring police action. The other crime categories have shown a slight reduction.

The crime statistics for Struisbaai between 2007 and 2008 showed that there has been an increase in contact crimes and other serious crimes. The other categories have shown a reduction.




**Graph 4.3.7.1 Crime in the Cape Agulhas Municipality**

### 4.3.8 Tourism and Heritage

A Tourism Development Framework was prepared in 2004 and made the following recommendations for the settlements in the Cape Agulhas Municipality. (Ref: ASCH Consulting et al, 2004)

1. **Bredasdorp:**
   - Increase entertainment opportunities;
   - Focus on the history of the town;
   - Capitalise on agri-activities;
   - Improve information for tourists;
   - Improve roads;
   - Increase accommodation; and
   - Create community based fynbos gardens.

2. **Arniston –Waenhuiskrans**
   - Develop new markets and products;
   - Maintain the R316;
   - Upgrade the existing harbour; and
   - Improve entertainment opportunities.

3. **Struisbaai**
   - Improve visual character of town;
   - Capitalise from tourism opportunities;
   - Maintain R316; and
   - Improve advertising and holiday accommodation.

4. **L'Agulhas**
   - Implement SDF proposals for southern most point;
   - Improves access to and provide information on tourist activities;
   - Improve the reserve area and develop the lighthouse precinct;
   - Develop eco tourism in the Agulhas National Park;
   - Maintain the R316;
   - Develop and upgrade various holiday accommodation options; and
   - Make land available for product development.

5. **Suiderstrand**
   - Develop low impact eco-tourism products;
   - Maintain access roads; and
   - Provide accommodation facilities.

6. **Elim**
   - Develop agri-tourism products;
   - Renovate the slave monument;
   - Tar and maintain roads; and
   - Improve information systems and develop community members dealing with tourists.

7. **Napier**
   - Create low impact eco-tourism opportunities and activities;
   - Build on cultural tourism products, develop agri-tourism products; and
   - Investigate Napier as a health, fitness and restoration centre.


**Photo 4.3.8.1 Great Trek Memorial in Napier** (source: CNdV Africa, 2008)