Knysna Municipality

SPATIAL DEVELOPMENT FRAMEWORK

“A Path to a Sustainable Future”

NOVEMBER 2008
Knysna Municipality Spatial Development Framework
“A Path to a Sustainable Future”
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Knysna Municipality

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GLOSSARY

CBD Central Business District
CID City Improvement District
CSIR Council for Scientific and Industrial Research
du/ha Dwelling Units per Hectare
DWAF Department of Water Affairs and Forestry
EIA Environmental Impact Assessment
GRP Gross Regional Product
IDP Integrated Development Plan
KMOSS Knysna Municipality Open Space System
KSDF Knysna Spatial Development Framework
LED Local Economic Development
MSL Mean Sea Level
MTO Mountain To Ocean
NSDP National Spatial Development Perspective
OSCAE Outeniqua Sensitive Coastal Area Extension
PGWC Provincial Government of the Western Cape
PSDF Provincial Spatial Development Framework
SAFCOL South African Forestry Corporation Limited
SANParks South African National Parks
SANRAL South African National Roads Authority Limited
SDF Spatial Development Framework

ROLE OF THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

see Section 26(e) of the Local Government: Municipal Systems Act, 2000;

1. A core component of the Municipality’s Integrated Development Plan (IDP);
2. Must include the provision of basic guidelines for a land use management system for the Municipality

THE PURPOSE OF AN SDF


1. It should spatially reflect the vision of how the municipal area should develop in the broad sense;
2. It should reflect the needs (partly through projects) identified in the first stages of the IDP process;
3. It should spatially integrate the strategies of the various sectors;
4. It provides a legally binding spatial framework, which promotes sustainable environmental, economic and social development in a municipality;
5. It sets out objectives that reflect the desired spatial form of the area;
6. It should serve as an information source and guide to inform and direct land use management;
7. It is neither realistic nor desirable that a SDF deals with every part of the municipal area at the same level of detail.
1.0. Introduction and Background

1.1. Knysna Municipality in Context

Knysna Municipality, as it currently exists, emerged from the amalgamation of a number of local authorities in terms of the Local Government: Municipal Structures Act, 1998, at the time of the local government elections held on 5 December 2000. It brings together the former local council areas of Belvidere Estate, Brenton, Knysna, Noetzie, Sedgefield (including Buffalo Bay) and the intervening areas formerly administered by the Garden Route / Klein Karoo District Council, including Old Belvidere, Rheenendal / Keurhoek, as well as the welfare village of Karatara and a number of forestry workers' villages.

The municipality is part of the Western Cape Province and Eden District Municipality and is identified by the municipal demarcation board as WC048 (see figures 1.2, 1.3, 1.4). It is some 1058km² in extent and has a population of 51,467 people.

This document is the final of a series of documents that make up the Knysna Spatial Development Framework (KSDF) as a totality.

A consultative exercise was undertaken in 2002, when various land use concepts were presented to the communities within the municipal area. Relevant provincial and national legislation and policies were then evaluated for applicability, and an in-house Spatial Development Framework (SDF) document was formulated in 2004.

Using the existing document as the basis, MCA Planners was appointed to:

(a) Consolidate the existing SDF information and develop the Proposals;
(b) Incorporate other Sectoral Spatial Projects;
(c) Assist with the Public and Legal Process required for its’ approval.

(a) Consolidate the existing SDF discussion document and proposals

Consolidating the existing draft SDF involved completing a number of undertakings. These included, firstly, reviewing the existing sectoral analysis, completing a more comprehensive assessment and synthesizing the key development issues in the municipality. This formed the basis for completing the Status Quo Report. The key findings from that document form the first section of this report.

Secondly, the focus of this document is formulating key spatial proposals and strategies, accompanying policies and an implementation framework. The recently released Provincial Spatial Development Framework (PSDF) has had to be taken into account in the latest draft document and this has required certain amendments to the content of the document.

(b) Incorporate other Spatial Sectoral Projects

The process of formulating the SDF has occurred in parallel with the undertaking of a number of other studies. As part of the appointment to formulate the SDF, these studies needed to be incorporated into the formulation of the SDF. The studies that were key inputs to the SDF included: the Open Space System Study; the State of the Environment Report; Homlee and Northern Areas Gateway Plan; the

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1 Municipal Demarcation Board of South Africa
2 Census, 2001
Rural Economic Study; and the Knysna Industrial Land Study. Copies of these documents can be found in Volume Two.

(c) Facilitating the Public and Legal Process
The Draft SDF was presented to Council for consideration and endorsement. This is to be followed by further public participation, updating the document after this process, and presenting the revised document to Council for final approval as part of the Integrated Development Plan (IDP).

The other studies, which would be guided by the SDF include: the Windheuwel and Springveld Framework Plans, Ruigtevlei Framework Plan; Consolidated Zoning Scheme; and the Airport Study for the Knysna Municipality (these have, for various reasons, not been included in this documentation). Further studies, as they are undertaken, will contribute to the fine tuning and future amendment of the SDF document.

SDF Process (see figure 1.1)
There are a number of steps involved in the process of formulating the SDF. The first was completed prior to the appointment of MCA, and was an ‘in house’ draft SDF. The second is the completion of a first draft report. The third is the presentation of the key concepts and proposals imbedded in this draft to a Steering Committee consisting of Municipal officials and Council members. The fourth is a workshop involving Technical Committee consisting of numerous interested and affected parties. The fifth is the completion of a second draft report to be presented to municipal officials and Council for comments. The sixth is a process of public consultation. Running parallel to these steps is engagement with experienced technical professionals as well as relevant Provincial and Local policy. The final step is presentation of a final report to Council for adoption as part of the Integrated Development Plan.
Figures: 1.2, 1.3 & 1.4

1.2. Top left: Knysna Municipality in the context of the Western Cape Province

1.3. Above: Knysna Municipality in the context of Eden District Municipality

1.4. Left: Knysna Municipality (WC048)
2.0. Key Developmental Challenges for the Knysna Municipality

The key developmental challenges have been drawn from the status quo document. They are categorised into key demographic and socio-economic, natural systems and settlement systems challenges.

2.1. Demographic & Socio-Economic Profile

The key challenges in terms of the demographics and socio-economics in Knysna Municipality relate to stark contrasts across what can be termed a dualistic socio-economic and demographic profile. Various factors, the most notable being widespread poverty, contribute to a profile characterized by a minority of very wealthy residents and a majority of very poor residents living in the Municipality.\(^3\)

The population of Knysna grew by some 8,600 people during the period 1996 to 2001, according to census data (42,947 to 51,449). This growth rate of 3.7% per annum is considered to have been exceeded during the following 5 year period, and may have reached 8% per annum, resulting in a population of perhaps 75,600 in 2006. This is expected to level off in the near future, so that, if the official population growth rate of 3.7% per annum remains the average over the next 5 to 15 years, the population of the municipal area will be in the order of 83,100 in 2011 and 115,600 in 2021.

It has been reported that some 46% of low-income households living in the municipal area are affected by poverty.\(^4\) The division between the wealthy and poor correlates strongly with racial groupings. The black and coloured populations are among the poorest residents of Knysna.

Housing shortages, low levels of education and income, and high HIV/AIDS and Tuberculosis rates characterize poverty in these areas.

Furthermore, the issues of poverty and inequality have been compounded by substantial population growth, which has been highest among the poor. This has resulted in the poor being concentrated in specific areas of poverty. These include parts of Knysna, namely, Hornlee, much of the Northern Areas (Flenters, Robololo, White Location, Jood se Kamp, Concordia, Endameni, Nekkies, Dam-se-Bos, Oupad), Sedgefield (Smutsville and Sizamile), as well as Rheenendal. According to the Knysna Municipal Integrated Development Plan, in order to reduce the current unemployment levels in Knysna by half over the next ten years, there is a need to create 1,500 jobs per annum during that period (Knysna Municipality, 2005).

\(^4\) Knysna Municipality Integrated Poverty Study, 2004
2.2. Natural Systems

The greatest strength of Knysna Municipality is its natural resource base. It is endowed with a wide variety of unique natural systems and resources. The most significant of these include mountainous areas, rivers, indigenous vegetation, coastal dune systems, coastal cliffs, beaches, lagoons and vleis. The Knysna Municipality has nineteen different vegetation (and aquatic habitats) types. This natural resource base sustains the economy through eco-tourism, agricultural activities, and forestry, the dominant sectors of the economy.

The ecological value of the natural environment, the profound impact that the natural resource base has on the economy, as well as the fact that nature is the single most significant factor influencing sense of place, have implications for the way in which this natural resource base should be protected.

However, there has been significant destruction of key natural resources. This is manifest in the loss of valuable unprotected indigenous vegetation, urban sprawl, significant and ever increasing development pressure on environmentally sensitive areas, and controversial development (e.g. marina development, golf courses, low density residential estates). One type of indigenous vegetation (Gouritz Dune Thicket) is already extinct in the municipality because of urban development on the islands of the Knysna Estuary, and five are very close to extinction (they have either >80% of their original extent transformed, or they have <2km² left).

The value of the natural environment and the current pattern of development have implications for the way in which the municipality should guide growth trends in the future if its most valuable assets are to be retained.

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5 Knysna Municipality, 2005: Rapid Conservation Assessment
6 Knysna Municipality, 2005: Rapid Conservation Assessment
2.3. Settlement Hierarchy

The settlement hierarchy can be separated into urban and rural settlements, the movement systems that connect them, and economic systems that exist within or around them.

A well functioning hierarchy of settlements exists in Knysna in terms of the relative sizes of settlements, their locations, and access provided between them by various movement routes. Knysna is appropriately located (along the N2, a regional route) as the central and most significant settlement in the municipality, as is Sedgefield, the second most significant settlement in the municipality. Other settlements, such as Rheenendal, Brenton, Belvidere, Karatara, and Buffalo Bay also have reasonable access to these service centres as a result of relatively short distances separating them and relatively good quality routes (Rheenendal Road, Karatara Road, etc.) connecting them. The Noetzie Road requires surfacing to provide safe and improved access to the beach there. Furthermore, access to inland areas is provided by the R339 to Uniondale. Settlements such as Knysna and Sedgefield have also maintained strong historical character in existing CBD’s.

However, settlements such as Rheenendal and Karatara function poorly as settlements. They are not sustainable economically, nor in other functional respects. For example, they offer very few economic, social and recreational opportunities, and in some cases are merely pockets of low income housing. Hence, it is necessary to seek means through which these settlements could function more sustainably.

Furthermore, potential exists to improve access (reduce travel distances, travel costs and travel times) between and within specific settlements by upgrading (tarring or all-weather surfacing of) gravel roads of poor quality. This is desirable between Karatara and Rheenendal, as well as between poorer parts of urban areas and economic centres. Improving the link between these areas by upgrading the district road network will promote economic activity and provide upliftment opportunities. Both tourism and produce-processing potential will be increased.

Conflicting movement functions also exist in Knysna town centre, where the N2 (a significant mobility route) goes through the centre of town along the Main Street (an integrating route). Both the mobility and integration functions of Main Street are significantly compromised, resulting in major traffic congestion as trucks pass through the town, as well as impacting on pedestrian ease of movement and safety as a result.

The rich natural resource base drives the relatively strong and growing economy. Overall, Knysna’s economy has achieved good growth. It contributes approximately R1.32 billion, or 1%, to the Western Cape’s economy, and constitutes 20% of the Southern Cape’s economy. Trade contributes 31% and the booming construction industry more than 10% to the local economy. Forestry, while experiencing a reduction in the number and size of plantations (by some 50%), remains an important sector and sustains many livelihoods in the municipal area. SAFCOL is understood to be reviewing its exit strategy and might retain larger areas under plantation in order to support the timber-milling sector in the region. Tourism is estimated to contribute between 20% and 22% to the local economy, and while there may be an overabundance of some tourism related activities such as B & B’s, significant potential still exists in others such as eco-tourism.

Key growth sectors have been unable to maintain current growth rates and address poverty and unemployment. Insufficient employment opportunities to meet the demand for jobs have been generated. Furthermore, there is a lack of diversity of economic drivers, and seasonal fluctuations in economic activity are characteristic. Poorer areas of Knysna have not benefited significantly from the tourism focus and traditional patterns of business ownership and management remain divided on racial lines.

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Knysna 2020: IDP Review, 2004
3.0. Possible Development Scenarios

The current state of the Knysna Municipal Area has been shaped by the development trends that have persisted over the past number of decades. Although a number of options are available, two divergent possibilities (see figure 3.1) exist in terms of how it will be shaped in the future. These are the 'business as usual scenario' and the 'smart growth scenario'. Both are hinged upon the role the Municipality chooses to play in reinforcing and counteracting specific development trends.

- **Business as Usual Scenario**\(^8\): With this approach growth and development within the municipal area could continue along its current path. This implies no significant intervention by the municipality, resulting in the perpetuation of the existing inequitable social and spatial development patterns. This will have far reaching cost implications for utility service provision.

- **Smart Growth Scenario**\(^9\): Alternatively, the municipality could decide to pro-actively embrace the guidance set by recent legislation and policy at national and provincial level\(^10\), as well as the spatial principles of growth and equity, integration and sustainability\(^11\). This would result in a fundamental shift in the management of growth and development in the Knysna Municipal Area, towards a more sustainable approach.

The decision by the municipality to prepare an SDF for Knysna provides an opportunity to realign the current pathway. A more sustainable development path requires immediate commitment to being more pro-active in guiding spatial development, commitment to change the trends of infrastructure investment patterns and taking a long term view on resultant outcomes.

It is noted that at the time that the Municipality decides to change from a 'business as usual' to a 'growth management' scenario, there may be initial impacts on growth and associated costs. These will, however, be greater the longer it takes for such a step to be initiated. In addition, unless there is strong commitment to such an approach, there is a chance that a 'business as usual' approach will again set in. These factors are illustrated by the broken lines in the diagram in Figure 3.1.

In implementing the ‘smart growth’ scenario, a strategic approach is to be used, rather than a broad brush ‘blueprint planning’ approach. As such, certain key sectors will be focused on, to direct the future of the area, rather than trying to address all the challenges at once. This approach is outlined in Section 5 ‘Conceptual Framework’, with more detail in Annexure 5.

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\(^8\) See Annexure 1: “Scenario 1: Business as Usual”
\(^9\) See Annexure 4: “Scenario 2: Smart Growth”
\(^11\) See Annexure 3: “Spatial Principles”
4.0. Key Municipal Spatial Informants

The key municipal spatial informants (see figure 4.1) are essentially the structuring elements at the municipal scale. They have been identified as being the integral elements that should inform the nature and form of the spatial concept at the municipal scale.

The spatial informants can be separated into two basic categories:

- Natural elements;
- Settlement elements.

The natural elements represent those features of the natural environment that hold the greatest significance in terms of their economic, ecological and amenity value. The settlement elements represent those elements that are most significant in terms of the functioning of the settlement system.

4.1. Natural Informants

The most dominant natural elements or landscapes at a regional and indeed municipal scale are the Outeniqua Mountains and the Indian Ocean. They represent the two immensely important and vast pristine natural areas. The Outeniqua Mountains separate the arid Karoo region from the resource rich Garden Route.

Between the mountains and ocean exists a wealth of resources that supports diverse floral and faunal species as well as life and economies within all settlements along the Garden Route. The transition from areas of high altitude transform gradually into rolling hills towards a relatively narrow plateau, finally reaching the coastal embayment where the most sensitive, ecologically rich and beautiful natural features such as vleis, lagoons, coastal cliffs, coastal dunes and beaches exist.

Numerous rivers, with sources in the high rainfall areas of mountaintops are the only continuous natural elements connecting mountain and ocean, as well as sustaining all forms of life. They wind through deeply incised valleys along an enchanting journey through indigenously vegetated mountainous areas (indigenous forests and fynbos) before flowing into vleis and estuaries and eventually reaching the ocean.

The importance of these natural features has justifiably been recognized in many areas, which have received an appropriate level of protection from being destroyed, by being proclaimed nature reserves and other categories of protected areas, including the inclusion of a significant area of the municipality in the Outeniqua Sensitive Coastal Area Extension (OSCAE) regulations.

4.2. Settlement Informants

Covering parts of the natural landscape is a settlement system. The settlement system consists of a number of human settlements, connected to one another by movement routes. The main human settlements in the municipality include Knysna, Sedgefield, Rheenendal and Karatara. These settlements are home to the majority of the population. Knysna is the largest, followed by Sedgefield, Karatara and Rheenendal. There are also a number of much smaller residential settlement clusters such as Buffalo Bay, Noetzie, Brenton and Belvidere. In general, settlements are on the eastern banks of the rivers, while resorts are on the western banks.

The major routes connecting these areas include major tarred roads such as the N2, Rheenendal Road, and Karatara Road. The major gravel roads in the municipal area include the R339 and the link between Karatara and Rheenendal. There are also a number of scenic routes (gravel and tar). The railway line which comes from George ends in Knysna.

These natural and settlement informants are the fixes that form the basis for formulating a spatial concept for the municipality.
Figure 4.1: Knysna Municipal Spatial Informants
5.0. Conceptual Framework

A sound conceptual framework is the basis (along with contextual realities) for the SDF\textsuperscript{12}. The Smart Growth scenario focuses on managing growth by using the following key spatial structuring elements:

- **Open Space System**: This is focused on the identification of all of the ‘green’ and ‘blue’ land use activities (see figure 5.1) that should be protected from urban development as they are important from an environmental, productive, recreational, and social perspective and also to accommodate future growth. This also includes the indigenous vegetation, forests, rivers, floodplains, coastal and inland dunes, agricultural land uses, etc. A rapid ecological assessment and corridor study, undertaken as part of the Municipal Open Space project, has provided and informed basis for this structuring element.

- **Major Towns and Town Centres**: The economic, social and recreational importance of (existing) town centres are recognised (see figures 5.2), given the current trend for growth to be directed to new nodal developments, in particular new shopping malls on the edge of towns that are only accessible by private transport. The Growth Potential in Towns Study undertaken by the Provincial Government of the Western Cape (PGWC) has provided a basis for establishing a hierarchy of settlements, although this is adjusted for the specific context of the Knysna Municipal Area.

- **Activity Streets and Nodes**: This focuses on key road linkages and cluster developments that encourage mixed-use activities (job creation and community facilities) along its route and that create connectivity with the existing town centres. This is

\textsuperscript{12} See Annexure 5: A conceptual framework for Knysna Municipality Spatial Development Framework
aimed at incorporating previously separated developments into mainstay economic activity and increasing the viability of employment generating opportunities in these areas. The idea is to concentrate areas of economic activity in order to promote scales of economy, rather than allowing the dispersal of businesses which creates a number of negative side effects.

- **Urban Edges**: These are also referred to as Growth Management Boundaries. They define the outer limits of development for the next three to five years. These may be revised as more information becomes available from further studies. Their main purpose is to encourage better use of existing urban land (through strategic infill and densification) and to manage the future growth and development within the Knysna Municipal Area. Urban edge identification is undertaken in accordance with adopted provincial guidelines.

The focus of these planning tools is on directing housing and infrastructural utility service investment in Knysna, as well as managing and directing ongoing private sector development applications, in particular those on the edge and outside of existing urbanised areas. Employment opportunities in rural areas, especially in respect of small-scale tourism development should also be considered.

This brief description of the conceptual framework is by no means comprehensive. Reference should be made to Annexure 5 to explore the detailed content of the conceptual framework and the role and function of all its components.
6.0. Knysna Municipality Spatial Development Framework

6.1. Knysna Municipality
This section is the application of the concepts\textsuperscript{13} to the contextual realities at the municipal wide level as well as Knysna Basin and Sedgefield.

The concepts to be applied to the Knysna Municipal Area include:
1. Open Space System;
2. Settlement & Services Framework;

The concepts to be applied to Towns include:
1. Open Space System;
2. Urban Corridors;
3. Urban Nodes;
4. Urban Edge;
5. Infill and Densification;

This section focuses on proposals and broad land-use guidelines for each component. Furthermore, in cases where significant growth management implications exist, these issues are discussed and focused policies are offered to facilitate decision-making and action in relation to these growth management issues. In addition to other legislative requirements and policy requirements in this and other applicable documentation, the Basic Criteria for Sustainable Development and Sustainability (Annexure 7) should be considered when assessing development applications.

6.1.1. Knysna Municipality Open Space System (KMOSS)
The Municipal Open Space System is essentially an interconnected web of natural systems, incorporating all the key natural elements (mountains, rivers, indigenous forests and fynbos, coastal dunes, etc.) in an integrated manner (see to figure 6.1). The KMOSS is informed by the Rapid Conservation Assessment and Corridor Study undertaken by the Biodiversity Conservation Unit for EnviroGIS.

The role of the KMOSS is:
- Protection and management of existing natural assets;
- Enhancing ecological functioning at a municipal scale;
- Enhancing economic and recreational potential of natural areas;
- Reflecting an interconnected web of green spaces.

Proposals are made for a number of categories within the Open Space Framework. Each has varying roles, as described in the conceptual framework, and therefore, varying levels of protection. The categories proposed include:
- Core Conservation areas;
- Secondary Conservation areas;
- Ecological Corridors;
- East-West Corridors of Continuity;
- Productive Areas;

\textsuperscript{13} The conceptual framework is explained in detail in Annexure 5
6.1.1(a) Core Conservation Areas (see figure 6.1)

The role of core conservation areas is providing a “range of ecological and bio-physical functions essential for sustainable life…and as such they should be retained in their natural state” 14.

The core conservation category is made up of two parts. Firstly, existing Nature Reserves and National Parks, which already have guidelines in place that control and manage land-use. The second is proposed nature reserves. These include currently proposed nature reserves identified by the Municipality, large tracts of indigenous forests, and areas vegetated with Fynbos. Some of the areas identified as ‘sensitive areas’ will undoubtedly be included in this category. Reference should be made to the detailed delineation of these in the Knysna Open Space System Study.

Areas of Core Conservation may occur within urban edges, in terms of Council’s requirement that the urban edge follow property boundaries as much as possible.

(i) Existing Nature Reserves and National Parks

In the Knysna municipal area, these include all existing Nature Reserves and National Parks. These are: Kammanassie/Millwood; Jubilee Creek; Lielievlei; Gouna; Ysternek; Diepwalle; Pertrus Brand; Sinclair, Pledge and Goukamma Nature Reserves; Goukamma Marine Reserve; as well as Knysna and Wilderness National Parks.

(ii) Proposed Nature Reserves

The Sparrebosch and Salt River valley indigenous forests on Municipal land have been included in this area, as both have been recommended for nature reserve status.

(iii) Land-use management guidelines

Only non-consumptive activities should be permitted in core conservation areas. These include:

- Passive recreation and related activities;
- Tourism;
- Research activities;
- Environmental education.

No development, urban or agricultural, should be permitted in these areas.

(iv) Land-use management guidelines on private land

Where private property falls within areas identified as Core Conservation Areas, unless such land is acquired by conservation authorities, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned in (iii) above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties.

6.1.1(b) Ecological Corridors (see figure 6.1)

As stated in the conceptual framework, the role of ecological corridors is linkage between the mountains, oceans and the ecological systems that exist between them. It is a means for promoting and sustaining biodiversity.

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14 (PSDF, 2005:3)
(i) River courses
The ecological corridors proposed include the entire courses of major rivers within the Municipal boundaries. They include the Knysna, Goukamma, Homtini, Karatara and Hoogekraal rivers.

(ii) River buffers
In addition to the rivers themselves, it is proposed that a 30m buffer either side of rivers be included in the ecological corridors.

(iii) Coastal Fynbos links
These include the Coastal Fynbos links identified in the Knysna Municipal Open Space System report. The importance of these linkages relates to continued genetic diversity and ecological health of the specific plant species, as well as the fauna which rely on them in various ways (movement corridors, food source, etc.).

(iv) Forest corridors
These include the Forest Corridors identified in the Knysna Municipal Open Space System report. The importance of these linkages relates to continued genetic diversity and ecological health of the specific plant species, as well as the fauna which rely on them in various ways (movement corridors, food source, etc.).

(v) Land-use management guidelines
Ideally, the same types of activities (passive recreation, tourism, research, environmental education) that should occur in core areas are appropriate for ecological corridors. Urban development and agriculture (intensive & extensive) are not desirable in ecological corridors and should be discouraged.

The land use management guidelines should be to promote and ensure that the linkages and corridors are maintained and increased through awareness-raising, ensuring that open space areas on intervening properties are created/protected/maintained through sound planning and land use practices, avoiding land uses which would interfere with the sound ecological functioning of these corridors and linkages.

The coastal fynbos links and forest corridors shown in the Rapid Conservation Assessment and Corridor Study are indicative and exact alignments must be identified during more detailed studies as and when possible (e.g. during EIA processes).

6.1.1(c) Secondary Conservation areas (see figure 6.1)
The role of secondary conservation areas is to act as buffers for core conservation areas, enhancing their ecological functioning and maintaining their environmental integrity. This category includes all properties which adjoin core conservation areas. The framework proposes that they also include existing protected areas as well as proposed protected areas, identified on the plan as ‘sensitive areas’.

(i) Existing Protected areas
There are a number of protected areas which are under the jurisdiction of different bodies, hence have a set of guidelines from these bodies that governs them. They include three types:
- DWAF forestry;
- Private Nature Reserves;
- Existing & Proposed Conservancies.

The Department of Water Affairs and Forestry (DWAF) forestry areas include the Bergplaas, Karatara, Goudveld, Diepwalle, Gouna, and Kruisfontein Forests.

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15 Information on types of protected areas sourced from Sub-Tropical Ecosystem Programme (STEP) database
(ii) Proposed Protected Areas / Sensitive Areas

In addition to the existing protected areas, a number of protected areas are proposed. These have been identified as ‘sensitive areas’. Areas identified in the Open Space System Study should be included. These layers have been sourced from the ENPAT data set for the Western Cape, digitized at a scale of 1:250 000, hence more detailed work is required in order to fix the boundaries at a local level.

However, it is argued that when the parcels of indigenously vegetated land are as large as those identified here, it is unlikely that they have been transformed to such a degree that they no longer exist. This means that at least parts of them, if not all, still play important roles in ecological functioning. The boundaries of these sensitive areas should continually be refined as further local scale investigations are completed. Until such time that more detailed boundaries have been determined and the distinction can be made between which parcels of land should be included in the core conservation category, and which should be included in the secondary conservation category, the management guidelines for secondary conservation areas will apply to all sensitive areas.

In the context of the Knysna Municipal Area, these include parts of:
- the Noetzie river valley;
- the upper Salt River valley;
- all areas along the coastline;
- the valleys of the Knysna, Goukamma, Homtini, Karatara and Hoogekraal rivers (all areas excluded from 30m buffer);
- the area from the Western Head to the eastern boundary of the Goukamma Nature Reserve;
- the coastal Milkwood Thicket between the western boundary of the Goukamma Nature Reserve and Cola Beach;
- the dune fields between the Groenvlei and the Swartvlei mouth;
- the dunes to the west of the Swartvlei mouth and the ‘fossil dune’ to the north of the N2.

Portions of the land on the Eastern Head, between The Heads and Sparrebosch would fall within all three categories:
- core conservation along the cliff faces overlooking the sea,
- a buffer area adjacent to that; and
- a transition area over the less sensitive areas.

(iii) Land-use Management Guidelines

The areas should also be subject to controlled public access and their social and economic role enhanced through eco-tourism and educational activities. Low impact eco-tourism facilities and education related uses could be considered in areas of low sensitivity. Low impact resorts and education related uses could be considered in areas that are not environmentally sensitive.

In more environmentally sensitive areas, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties.
6.1.1(d) Productive Green Areas (Agriculture & Forestry)  
(see figure 6.1)

This category includes existing agricultural and commercial forestry areas. The role of these areas is primarily that of production and visual amenity. They have historically been, and should remain important sources of productive economic activity in the municipal area, as well as being contributors to the sense of 'place'. The objective is to maintain these activities that sustain livelihoods, albeit that in some cases they may be somewhat limited. The most appropriate and thus desirable use for these areas is the existing use, therefore, they should remain as such. It is also important to raise the awareness of private land-owners of the responsibility to conserve the environment, particularly ecological corridors on forestry land, as well as to adhere to their FSC responsibilities.

(i) Forestry
High yield areas in southern parts of the Municipality along the N2 such as those close to the Towns of Knysna and Sedgefield must all be maintained as productive areas, except where portions are required for logical and necessary expansion of the urban fabric, i.e. Kruisfontein.

(ii) Agriculture
All existing agricultural areas identified in the Knysna Open Space System Study, most of which are in close proximity to Rheenendal and Karatara.

Areas of high agricultural potential or other agricultural significance will need to be identified in conjunction with the Department of Agriculture.

(iii) Land-use Management Guidelines
The preferred form of human settlement in these areas is small scale nodal settlement, related to the agricultural activity of the property and additional units catering for farm-style holidays, with buildings that do not compromise the rural character. Buildings are to be limited to low profile single- and double-storey units, sited with consideration to the environment and the character of the area. The primary use must remain productive in nature (agriculture or forestry). Residential use, in the form of large residential estates / golf estates should not be permitted as a primary use. The provincial guidelines with regard to the establishment of golf course estates, polo estates and resorts in rural areas would need to be taken into account with any development proposal.
6.1.2. Knysna Municipal Settlement and Services Framework
(see figure 6.2)

The purpose of the Settlement and Services Framework is to define settlement, services and route hierarchy that will result in efficient, equitable and sustainable functioning of the settlement system in the municipal area. It forms the basis for investment and decision-making by guiding the locations and levels of interventions, as well as what form it should take.

Growth and development in settlements in the Knysna Municipal Area over the past number of years, and the demand for further development to cater for in-migration from all parts of the country, has led to a situation where the existing services are at or near capacity in most areas of the municipality. In order to address this issue, there is a need for a multi-year strategic investment programme of infrastructure upgrading and an accompanying need to optimise the use of existing infrastructure. This will necessarily require prioritisation of areas for development and, on the other hand, identification of areas where development should be avoided until services can be made available.

In essence, given the developmental role of local government, development areas should ideally promote the integration of formerly segregated towns and the accommodation of a range of income groups and land uses. At the same time, the role of tourism as one of the municipality’s prime economic generators needs to be recognised, and the character of the area must be retained.

6.1.2(a) Nodes (see figure 6.2)

(i) Primary Regional Node – Knysna Basin
Knysna is the urban hub and highest order settlement in the municipality. Its role however, is not as a major regional service centre or core Regional Settlement in the region / district, a role to which George is well suited. Its role should remain that of:

- Main service centre to settlements within the municipal area (Sedgefield, Karatara, Buffalo Bay, Rheenendal, Belvidere and Brenton);
- Focus of economic activity (tourism, leisure, ‘low-key’ industry, retail, services, etc.);
- Hub of primary administrative and public service functions in the Municipality;
- Centre of central business and cultural activity in the Municipality;
- Primary area for significant residential development in the municipality.

Significant municipal investment is required, and justified, in the abovementioned spheres. Investment must be focused towards developing Knysna to the extent that it fulfills this role.

(ii) Secondary Node – Sedgefield
Sedgefield is a secondary node, or a second order settlement in the context of the Municipality, making it the most significant ‘small town’. Although its roots as a holiday destination remain important, the need also exists to create employment opportunities, specifically in its historically disadvantaged communities. However, while not at the same scale as Knysna, it has a developmental role too. Therefore, investment in tourism, timber and related industry should be promoted.
Hence, growth and investment in Sedgefield should be focussed on developing its role as:
- A major tourist and holiday destination;
- A secondary, yet important centre for administrative and public services functions;
- A location for limited low income / affordable housing provision;
- Job creation and socio-economic development of the poorest groups of its population;
- Significant investment in the tourism and related industry.

(iii) Hamlets
- Rheenendal / Keurhoek

Rheenendal / Keurhoek is a third order settlement. Its role should be developed to become that of a:
- Settlement satisfying local service and facility needs;
- Service centre to it’s rural hinterlands;
- Attractor of tourists, a gateway to indigenous forests;
- Settlement where small scale industries and crafts are promoted.

The major emphasis in terms of municipal investment required is that of creating more ‘sustainable settlements’. This requires consolidating existing facilities and services. Having been identified as one of the major ‘areas of poverty’ within the municipality, developmental investment must be focused on local economic development as well. Large residential developments are not desirable in this area. Opportunities may exist in creating an economically viable and sustainable settlement driven by the harvesting and manufacturing of indigenous timber at Rheenendal and / or non-polluting light industrial activities, preferably, but not strictly necessarily, related to agricultural activity.

- Karatara

Karatara is a third order settlement. It has been identified as the location for a University campus. This should transform the role of the settlement dramatically, offering significant economic and social opportunities. It is envisaged that it should become a ‘university town’. Municipal capital investment in infrastructure into this project can be justified.

Municipal investment should still focus on:
- Investment in people rather than the place (social development infrastructure) except insofar as is required to establish a viable economic base for the settlement (e.g. agricultural processing, tourism development, education centre);
- Satisfying local service and facility needs;
- Tourist spa / Holiday resort (but not a casino).

(iv) Small Residential clusters
- Rural Clusters / Nodes

The rural clusters identified as being part of this category include:
- Elandskraal;
- Rheenendal;
  - Goudveld (Bibby’s Hoek, Braamerskraal);
  - West of the Homtini River (Redlands);
  - Charlesford / Westford.
- Belvidere North.

They are rural and agricultural in character, although commercial agriculture might not be actively pursued in many cases. While very limited municipal infrastructural investment should occur, guidance is required for management of land-use within these settlements.
Land-use Management Guidelines:
- Their agricultural character must be maintained;
- This applies to the aesthetics, and number of buildings, and minimum erf sizes;
- A minimum subdivision size of 3ha or greater, depending on the ruling order property size in the node would apply;
- The primary right would be a dwelling house, essential outbuildings, and such agricultural buildings as are necessarily required for bona fide agricultural activity on the property;
- Options for rural recreational and economic opportunities could be considered, as long as it is in keeping with the rural character
- No municipal infrastructural services are to be delivered in the short to medium term.

(v) Resort & Second Home Clusters
Brenton, Belvidere, Buffalo Bay, Noetzie and the resorts on the western shore of the Swartvlei can be categorized as the fourth order of settlement.

Brenton and Belvidere do not represent self-sustaining towns in themselves, nor is it intended that they should grow significantly, as urban development is intended to be focused on the eastern side of the river and north of the lagoon. In addition, the two settlements have differing characters, Brenton consisting largely of holiday homes and Belvidere having a more permanent retirement village component.

The role Buffalo Bay, Noetzie and the resorts on the western shore of the Swartvlei, Karatara, Gouveld and Charlesford, while limited to being focused solely on tourism activities, is not insignificant.

Land-use Management Guidelines:
These are important areas for tourism, yet should only receive very limited municipal infrastructural investment. That which they do receive should focus on consolidating the existing tourism infrastructure. Further ‘urban’ development should not be permitted in these areas. The Southern Cape Regional Structure Plan, Knysna-Wilderness-Plettenberg Bay Regional Structure Plan, and Western Cape Guidelines for resort development provide clarity on the types and scale of tourism development that will be permitted on the property.

6.1.2(b) Mobility and Scenic routes (see figure 6.2)
(i) Regional Routes
  - Existing N2
The most important mobility corridor in the municipal area is, and should remain the existing N2. The Knysna N2 bypass will provide much needed alleviation of mobility pressure that is being exerted on the town, especially in respect of freight vehicles moving between the major centres of Cape Town and Port Elizabeth (Nelson Mandela Metropole).

  - Existing N2 through Sedgefield
The framework proposes that only the town of Knysna is ‘bypassed’. The reasons for this proposal relate to currently adequately functioning route through Sedgefield (existing N2), as well as the significant value of the land that will be taken up by the Sedgefield bypass should it go ahead.

Traffic problems in Knysna have reached proportions that make it critical that the bypass is constructed. However, in Sedgefield, the existing system of the N2 and service roads function well enough to ensure mobility is not compromised. Traffic slowing measures (traffic
lights, signage, median, etc.), as well as service roads on either side of the N2 which service local needs function adequately. Hence, the bypass cannot be justified on the basis of traffic congestion. Furthermore, the land that the bypass will take up north of the station is potentially very valuable in terms of its location (highly accessible, publicly owned) and being one of very few available parcels of land for locating affordable housing. In the context of great demand for land, and the relative lack of available and well-located land, aborting plans for a bypass for the towns are further justified.

(ii) Sub-Regional routes
These roads are the responsibility of the Provincial Transport Branch, with the Eden District Municipality acting as its agents in certain cases. As such, the proposals are recommendations to these agencies, and not the function of the Knysna Municipality itself.

- **R339 to Uniondale**
  This is an important route inland and the only linkage to Uniondale. The quality of the route should be upgraded (tarred or at least regularly maintained, if it is the intention that the road remain gravel surfaced because of cost implications and retention of rural character) so as to improve its functioning as a significant sub-regional route. The route of the road through Dam-se-bos / Nekkies must be re-routed further east, so that the existing road, which operates below inter-regional route standards, can be deproclaimed as a provincial road to become a municipal street. The re-aligned R339 will then define the eastern boundary of the urban area of Knysna.

- **Rheenendal Road; Karatara Road**
  These two are important linkages as they complete the ‘loop’ of access between key settlements in the municipality. It is important that the surfacing of these routes is prioritized for regular maintenance.
  - **Link between Rheenendal and Karatara**
    Inland linkage
    Intervention is proposed in terms of tarring of the existing gravel road between Rheenendal and Karatara to create a ‘loop’ of access. This will have significant impact on access for residents of Knysna Municipality and visitors. It is also fairly significant in terms of its scenic qualities. Should it be argued that the road remain gravel surfaced because of cost implications and retention of rural character, upgrading of certain low level crossings, widening at dangerous corners and application an all-weather surface should be implemented, as well as a programme of regular maintenance, needs to be implemented.

(iii) Scenic routes
- **Existing N2**
  The existing N2 has an important role as a scenic corridor. In order to avoid the problems of the Harkerville / Plettenberg Bay corridor, no subdivision or development rights which increase traffic access directly onto the N2 should be permitted between White Bridge and Makou Street, Sedgefield, as well as east of the Uniondale / Noetzie turn-off and west of the Swartvlei bridge.

Other scenic routes, of lower order than the existing N2 between Knysna and Sedgefield include:
- **Phantom Pass**;
- **The road to Buffalo Bay**;
- **Noetzie Road**;
- **Old Cape Road / Kom se Pad**;
- **Brenton Road**;
- **Rheenendal / Karatara Road**;
- **Barrington Road**.
6.1.2(c) Urban Edges (see figures 6.2 & 6.3)

Future urban development should be limited to within the existing urban areas of Knysna and Sedgefield. To a certain extent, appropriate urban development, which will enhance the socio-economic viability of the hamlets of Rheenendal / Keurhoek and Karatara, should be considered.

In accordance with the Provincial Urban Edge Guidelines, the urban edges of towns will be drawn relatively closely to the existing edge of the urban fabric, in order to encourage infill development, until such time as an evaluation of sustainable growth potential has been undertaken. A priority is a study to evaluate the infill potential and to formulate appropriate densification strategies for the towns, in order to provide an empirical basis for guiding future development within the town. The Provincial Guideline of achieving an average density of 25 dwelling units per hectare within urban areas over the next ten years may not be appropriate for towns within the Knysna Municipality, and it is only with such data that a firm position can be taken in this regard.

Urban Edges are critical from a settlement restructuring point of view (reducing infrastructure costs, improving access to facilities and services, more efficient transport linkages, etc.), as well as in terms of protecting the natural resource base from development pressure. It indicates those areas where the edge must be held to protect sensitive natural features, as well as areas where future development should occur.

The evidence to date shows that development opportunities do exist in close proximity to the town centres of Knysna and Sedgefield. Thus, only if it is proven through a thorough process of town / local planning that additional urban development cannot be accommodated in close proximity to these two towns due to limited development opportunities, should there be further development outside of them. This should only occur in the long-term future, if necessary at all. The town scale frameworks below further detail the determination of the urban edges of Knysna Basin, Belvidere, Brenton-on-Lake and Brenton-on-Sea, guidelines for these edges and opportunities for infill and densification.

The hamlets of Rheenendal / Keurhoek and Karatara both comprise of two components each, based on ‘separate development’. The urban edge for each would be the limit of current development, but with the opportunity for development, which would link the components together (i.e. Karatara ‘Bosdorp’ and ‘Welsynsdorp’, Keurhoek with Rheenendal business centre), while generating sustainable, permanent employment opportunities without impacting negatively on agricultural activity in the vicinity should be considered.

New settlements outside the urban edges of the Knysna Basin and Sedgefield should be discouraged. The history of locating new settlements at the periphery of towns or far into the rural hinterlands has proven in most cases to be extremely costly in terms of infrastructure, economical viability, social acceptability and in most cases, sustainability.

6.1.2(d) Special Planning Areas (see Figure 6.2 & 6.3)

These are areas identified as Core Conservation Areas owing to the environmental sensitivity of the majority of the site but which, owing to their proximity to the urban edge, could contain portions which might be considered for environmentally sensitive and appropriate development in order to provide a phasing out of urban development and the protection of the conservation component.
6.1.3. Knysna Economic Development Framework
(see Section 1.7 in Annexure 5)

The 'Knysna Poverty Strategy, Phase 1 Survey, by Urban Econ, March 2004, indicated that 44% of households in the municipality's lower income population have at least 1 person that is unemployed. It concludes that 46% of low-income households in the municipality are affected by poverty.

In order to reduce the current unemployment levels in Knysna by half over the next ten years, there is a need to create 1 500 jobs per annum during that period.

The strategy for economic development in the municipal area, and the implementation thereof, is informed by three key studies in particular. They include:
- The Knysna Poverty Strategy (2004);
- The Industrial Land Study (2005);
- The Rural Economic Study (2005).

The latter two of these studies are attached as Annexure 10 and Annexure 11 respectively and should be referred to. They will also be updated with studies that may follow. These will build on the existing conceptual framework by presenting more detailed proposals about specific strategies and programmes, and locations where these should occur.

6.1.3(a) Land Use and the Economy

The land use implications for sustained economic prosperity and continued economic development relate to ensuring that land uses that support the most economically viable and productive sectors of the economy are provided for within the spatial framework.

In the Knysna Municipal Area, the most important economic sectors for strategic intervention have been identified as being:
- Forestry;
- Agriculture;
- Industry.

These sectors are indicated in the Knysna Poverty Strategy (2004) as providing the most stable employment opportunities in rural and urban areas of the Municipality. Although these sectors have shown a decline as a percentage of the economy in the municipal area, the ‘exit strategy’ for forestry in the Southern Cape is under review, and the Industrial Land Study (2005) has indicated that there is a growth tendency in the manufacturing sector of the local economy.

Furthermore, the Rural Economic Study indicates the potential productivity of particular sub-categories within forestry and agriculture, allowing sound decisions to be made relating to the future of the rural economy.

The findings of the Rural Economic Study are that specific rural economic sectors drive the local economy and should be built upon. They include:
- commercial agriculture;
- commercial forestry;
- indigenous forestry;
- tourism.

Greater emphasis being placed on secondary and complementary activities that relate strongly to the natural resource base and existing primary economic activity is important as a result. A more comprehensive tourism offering has also been noted as being important.
6.1.3(b) Economic Development in Towns

The Growth Potential Study completed for the Western Cape provides a good starting point for the direction in which economic development should be going. The two key points that should be drawn from this study (as well as the PDSF proposals) are that:

- economic growth potential of towns should determine the levels of investment in economic infrastructure they receive;
- towns with high growth potential and high need should be the focus of investment in economic (fixed capital) infrastructure.

The implications of this for Knysna Municipality are that:

- the town of Knysna should be the focus of fixed economic infrastructure investment;
- towns such as Sedgefield, Rheenendal and Karatara (none of which have high growth potential) should receive only limited fixed infrastructure investment. Economic development in these areas may be better served by investing in ‘people’ rather than places, in the form of social capital spending.

Furthermore, the study emphasises the need for towns to capitalise on their existing economic base and unique place identity.

6.1.3(c) Industrial development

Having established the need to focus economic investment within Knysna as opposed to investing haphazardly in numerous locations with little economic growth potential, it is necessary to consider types of economic investment best suited to Knysna, as well as the accompanying land use requirements.

Knysna Municipality has identified industrial development as being a key sector to be explored in terms of economic development in the town. The key findings of the Industrial Land Study are that:

- there is indeed demand for land for additional industrial development;
- the existing industrial areas are close to reaching their capacity;
- alternative locations for industrial development have been explored;
- Kruisfontein and Rheenendal are the most viable options for industrial development.

The land use implications for industrial development in Knysna relate to the character of the town as a place known primarily for its natural beauty, the demand for land, the scarcity of land for industry and the value of land in close proximity to the town. For these reasons, a number of land use guidelines are appropriate in relation to industrial development.

Light industrial activity on relatively small parcels of land should be encouraged. Industrial activities and industrial land should be spread over a number of locations as opposed to attempting to meet the need for industrial land on a single, very large land parcel. Exceptions would be the establishment of a landscaped industrial park at the intersection of the N2 and the proposed re-routed R339 (Uniondale Road), at Kruisfontein North, and limited and appropriate industrial development at Rheenendal to provide employment for the residents of that settlement.

Large ‘smoke-stack’ industry should be discouraged in the Knysna Municipal Area, as this will compromise the environmental integrity of the area. Business incentives have been noted as important to attract investors, hence options for providing land at competitive prices, as well as tax incentives as examples, should be explored.
6.2. Application of the SDF Concept to Towns

6.2.1. Knysna Basin (see figure 6.4)

Knysna is the urban hub of the municipality. As such, it must remain the focus of major infrastructural investment. It is also the area where socio-economic challenges are concentrated, as it houses the majority of the poor in the municipal area. Furthermore, it is the focus of private sector economic (retail, commercial, industrial) investment, and the main source of employment opportunities.

Significant development guidance is required from the municipality in directing the town on a sustainable future development path. This entails adopting the Smart Growth approach, as discussed in Section 3 and elaborated in Annexure 5. The type of guidance that this framework will offer is threefold:

- **Direct** public investment more strategically;
- **Control** developments that may have negative impacts on the natural assets and resource efficiency of the town;
- **Guide** and elicit private sector responses and investment, which in turn reinforce public sector investment.

This section demonstrates how this approach and the conceptual framework are applied to the context of Knysna Basin. The key components of the development framework, as set out in the conceptual framework include:

- **Open Space System**
- **Urban Corridors**
- **Urban Nodes**
- **Urban Edges**

6.2.1(a) Open Space System (see figure 6.4)

The key components of the open space system that filter from the conceptual framework include:

- **Core Conservation areas and Ecological Corridors**
- **Secondary Conservation areas**
- **Core productive areas**
- **Recreational areas (passive & active)**

(i) **Core Conservation Areas and Ecological Corridors**

The core conservation areas and ecological corridors in the town must include:

- **Knysna Lagoon National Park**
  Public access to the lagoon, and lagoon’s edge in particular, as well as ensuring and enhancing ecological functioning and habitats, is of primary importance.

- **Cliffs and sensitive vegetation on the Eastern Head**
  The pristine character of these cliffs must be conserved in perpetuity and public access in the form of nature trails should be promoted if and when development applications are considered.

- **Western Head**
  The coastal dune and the sensitive indigenous vegetation on it must be conserved in perpetuity. Areas that are low yield forestry areas should be rehabilitated as part of the coastal green belt stretching from the Western Head into Goukamma Nature reserve.

Conservancies should be encouraged by the Municipality and facilitated by the conservation authorities (SANParks, Cape Nature...
Conservation) where private land ownership exists on the Western Head.

- Indigenous forests north of the town;
- Phantom forest;
- Sinclair Nature Reserve;
- Pledge Municipal Nature Reserve;
- Featherbed Private Nature Reserves;
- Blue Butterfly Special Nature Reserve.

The pristine character of the indigenous forest to the north of the town must be conserved in its natural state. If significant alien infestation exists, this must be rehabilitated. The area must be enhanced as a tourist destination through the development of a more comprehensive network of hiking and mountain biking trails, to expose one of Knysna’s most unique and valuable assets.

⇒ Land-use management guidelines

- The Knysna Lagoon Edge Management Guidelines, as contained within the Knysna Municipal Open Space Study must be applied in managing land use along the edges of the Knysna Lagoon;
- Low impact eco-tourism facilities and education related uses could be considered in areas of low sensitivity. Low impact resorts and education related uses may be acceptable in areas that are not environmentally sensitive;
- Erven within the urban edge which contain elements of Core Conservation must give due regard to the environmental sensitivity of the site with care being taken not to compromise the ecological functioning of the site when proposing developments on them. Examples of these such erven are erf 7296 and those erven along the cliffs of the Lagoon Road in Welbedacht;
- Where private property falls within areas identified as Core Conservation Areas, unless such land is acquired by conservation authorities, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned in (iii) above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties;
- The policy relating to development along Coastal Cliffs (section 7.7.1.a) must be applied to the cliffs on the Eastern Head;
- The policy relating to Development along Coastal Dunes (Section 7.8.1.b) must be applied to the Western Head.

(ii) Secondary conservation areas

- Conservation of Rural Character
The reason for conserving these areas relates to the conservation of the rural character of the area, in addition to the conservation of important ecological processes. The properties adjoining core conservation areas form a ‘buffer’ around them, and enhance linkages between biomes.

This category must include agricultural smallholdings that exist close to the urban edge and where the rural character is still intact (e.g. parts of Eastford and Gouna). In addition, all erven adjoining core conservation areas (except where in an urban context such as around Pledge Nature Reserve and lower central Knysna) would be considered as secondary conservation areas (estates in the Eastford area were developed as private nature reserve concepts and can be considered as Secondary Conservations areas).
⇒ **Land use management Guidelines**
The same land use management guidelines applicable to small rural areas (Municipal Settlement Framework) must apply to these areas (refer to Section 6.1.2.a.iv).

- The development of sensitive, low impact eco-tourism resorts could be considered on privately owned properties where appropriate;
- In more environmentally sensitive areas, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties.

(iii) **Core Productive areas**
Productive areas will take different forms. The main types of productive activity will include commercial forestry, dairy farming, small-scale agriculture and possibly indigenous woodlots.

The distinction should be made as to which should occur inside or outside the urban edge.

- **Outside the urban edge**
  In regard to commercial forestry, the high yield forestry areas such as those east of Kruisfontein, as well as north and south of the N2 to the west must be maintained for forestry and continue to be a contributor to the economy.

- **Inside or Along the Urban Edge**
  Urban Agriculture should preferably be located inside or along the urban edge due to the benefits of access and close proximity to the residences of farmers as well as local markets. Cattle grazing should preferably be located on agricultural land outside the urban edge, but within reasonable access for low-income households, or along the urban edge where appropriate land is available.

While it is clear that agriculture cannot become a major driver in terms of GRP, its economic function remains important. At local economic development level, these include indigenous and exotic (but managed) woodlots and the most appropriate types of urban agriculture. There is a need for an urban agriculture study to investigate the possibilities and location for such activities. The value of such areas would be twofold:

- Promote economic empowerment;
- Act as an important buffer to primeval forest landscapes immediately north.

⇒ **Land use management Guidelines**
The Western Cape: Guidelines for Resort Development, the South Cape Sub-Regional Structure Plan, as well as guidelines for silviculture should be adhered to in core productive areas.
(iv) Recreational areas

Passive recreational areas
The proposed passive recreation areas include:
- **Indigenous forest north of Heidevallei**
  The indigenous forest north of Heidevallei has strong potential for passive recreation due to its proximity to urban areas. It is one of very few large unspoiled tracts of indigenous forest that is so easily accessible to most of the town’s population and visitors. Initiatives in this regard have already been commenced by communities in the area (e.g. rasta trail).

- **Hornlee Green Belt & River Corridor**
  The Hornlee green belt and river corridor, as contained in the Knysna Open Space System Study, is an important continuous link between the Sinclair Nature Reserve and the lagoon. The Neighbourhood Revitalisation Programme for Hornlee has been looking into this matter.

- **Lagoon Edge Landscaped Precinct (George Rex Drive)**
  The lagoon edge precinct will offer residents the opportunity to experience the lagoon while spending time in a high quality landscaped public space. There are currently a limited number of recreational areas that are not privatized and this area presents a major opportunity for public recreational area.

Active recreational areas:
- **Municipal sports fields on George Rex Drive**;
- **Hornlee Sports fields**;
- **Municipal Golf Course**;
- **Masifunde sports complex**.

These existing facilities should be upgraded as opposed to developing new facilities and sharing among various organizations and institutions should be encouraged.

⇒ **Land use management Guidelines**
The upgrading and sharing of existing facilities will be encouraged before creating new facilities.

(v) Landscaped areas

Soft Edges
- **Lagoon Edge Landscaped precinct**
  This should be the highest order soft edge at the town scale. It should represent an active urban / green interface. Smaller landscaped soft edges should be encouraged along the edge of Knysna lagoon, as well as at urban nodes, where the interface between ‘hard’ and ‘soft’ created spaces is important.

Landscaped streets
- **George Rex Drive**;
- **Vigilance Drive**.

Landscaping these streets will create continuous green links between the Heads and the lagoon edge landscaped precinct, and Hornlee and the lagoon respectively.
6.2.1(b) Urban Nodes, Gateways and Viewpoints

The types of urban nodes discussed in the conceptual framework and being applied to Knysna include:

- Primary node,
- Secondary nodes,
- Gateways,
- Viewpoints.

(i) Primary Node – Knysna CBD

The primacy of the Knysna CBD is to be retained. The town should not follow the example of innumerable other towns which have bowed to pressure for out-of-town shopping centres and malls, which undermine the vitality and functionality of the CBD. This is not to say that services should not be extended to residents living out of the town centre, but that the extension of such services should not be at the expense of the viability of the CBD itself.

(ii) Secondary nodes

- Hornlee Node
  The Hornlee node requires consolidation of existing facilities rather than the development of a range of new ones, as well as the incorporation of a wider range of economic services and a higher density residential component. This project has been completed as part of the Northern Areas Gateway and Hornlee Design Frameworks (2005).

⇒ Land use management Guidelines
The implementation of the existing precinct development plans should be undertaken.

- Masifunde
  The Masifunde node is an example of where greater development of facilities and services is necessary.

⇒ Land use management Guidelines
The implementation of the existing precinct development plans should be undertaken.

- Conservation of Historic character
  It entails conserving buildings with heritage significance and status as heritage sites, as well as design guidelines to ensure new buildings are in keeping with the character of existing built fabric. This includes preserving the existing character of areas with heritage value, such as the historic town centre of Knysna, Belvidere, as well as the need to ensure visually sensitive and appropriate development in areas such as Brenton, Buffalo Bay, Noetzie and suburban Knysna itself.
(iii) Gateways
Each of these requires individual urban design exercises. They include:

- Northern Areas Gateway
  The design phase for this gateway has been completed and includes a public transport collection and drop-off point, public space, as well as a commercial component.

- Western Gateway
  Design intervention is required here to accommodate informal trading and small business operation. The upgrading of the Lagoon Road by the Provincial Transport Branch will include accommodation of informal trading.

- Hornlee Gateway
  The design phase for this precinct has been completed and includes a public transport collection and drop-off point, public spaces, among other components.

⇒ Land use management Guidelines
  The most recently prepared Gateway Framework Plans and Precinct Development Plans should be implemented.

(iv) Viewpoints
These are specific points along recreational routes. They afford people the opportunity to stop to view the breathtaking scenic beauty synonymous with Knysna. They should be implemented in the form of small-scale design projects. They can be done on an individual project basis, but must be part of and contribute towards the system of viewpoints as a whole.

The proposed locations for these viewpoints include points along the Western Head (Brenton-on-Lake & along the road to Brenton (x2), and at end of Western Head road), Eastern Head, North of Heidevallei and Gouna Road.

6.2.1(c) Urban Corridors
The types of urban corridors discussed in the conceptual framework and being applied to Knysna Basin include:

- Mobility Corridors;
- Activity streets;
- Local Activity street;
- Scenic corridor;
- Pedestrian / Bicycle Networks and Linkages.

(i) Mobility Corridor
- N2 Bypass
  Almost all stakeholders and role players in the town have justifiably embraced the construction of the N2 bypass for the town. The need is clear and its timely construction, a matter of urgency for the town.

- Uniondale Road (R339)
  It is of high priority that the portion of Uniondale Road through Damse-bos be relocated further to the east in order for it to function as an inter-regional connector.

- Old Toll Road
  Reinstate Old Toll Road between Concordia and the N2 via Heidevallei.

⇒ Land use management Guidelines
  A new alignment of the Uniondale Road/N2 intersection is proposed as part of the proposed Kruisfontein development.
(ii) Activity streets
- Knysna Main Street
Knysna Main Street has the potential to take on an entirely different character. Once the bypass has been constructed, its nature should be transformed through strategic investment in the public environment. As opposed to it being a congested and unsafe street, it is proposed that it be developed into one along which pedestrians and cyclists move freely and safely. In addition, the street/building interface should be enhanced so that it is characterised by elements of a high quality urban environment.

⇒ Land use management Guidelines
The most recently prepared or forthcoming guidelines including those prepared as part of the Templeman Square redevelopment, Lower Central CBD Enhancement Study and the Main Street to Waterfront link should be adhered to.

(iii) Local Activity streets
- Concordia Road
It is important in terms of integrating urban activities through the Northern Areas of Knysna, as well as connecting the key nodal points along it route, which should become the foci of urban activities in the area. It is proposed between the intersection of Grey Street and Main Street, and the intersection of Concordia Road and the N2. The intensity along this route should vary, with the focus of activity and intervention occurring at the proposed nodes (see Section 6.2.1.b).

⇒ Land use management Guidelines
The Northern Areas Precinct Development Plan should be considered.

(iv) Scenic Routes
- George Rex Drive
The importance of this corridor is related to the fact that it is the only continuous stretch of the lagoon edge where public access is secured and possible. Hence, the edge must be externalized and public use promoted. There is a need to reinforce an active urban/green interface along George Rex Drive (proposed landscaped edge); this should become an interface that facilitates intense public activity and movement (pedestrian and cycle) along the soft green edge, with the major focus being awareness of the relationship with the lagoon.

This should occur through public design intervention in creating a landscaped ‘soft’ green edge, through which the integrated pedestrian/cycle network passes towards The Heads.

- Phantom Pass, the Brenton Road and the Noetzie Road
In contrast to the George Rex proposal (intense activity), these should be ‘carriers’ of people (locals and tourists) travelling (bicycle & motorised transport) to specific destinations, and having coordinated nodal stops (viewpoints) at specific points, where people have the opportunity to stop and enjoy the scenery. They need to be kept in good condition by the relevant roads authorities (Provincial Transport Branch) and promoted by the Tourism Bureau.

(v) Pedestrian/Bicycle Networks and Linkages
- Integrated Pedestrian/Cycle Network around the Lagoon
It is proposed that this network start on the main street, go along the lagoon’s edge to the bridge where the existing N2 crosses the lagoon, along the road towards Belvidere, around the southern edge of Belvidere, and back along the lagoons edge, across the lagoon, and back onto the main street, down Grey Street towards the Waterfront, and then along the Lagoons edge towards the proposed...
Lagoon Edge Precinct, through this precinct and onto George Rex drive all the way to the proposed viewpoint at the Eastern Head.

The structural requirements of the stretch of walk / cycleway across the lagoon, along the existing railway line have been investigated. They are structurally possible, inexpensive, and will not result in any further disturbance in flow patterns or tidal exchange in the lagoon.

The section following the lagoon edge to the west of the town has already been planned by SANRAL, while other parts of the proposed network already exist (from Waterfront to George Rex Drive). Hence, the role of the Municipality is to co-ordinate and facilitate the construction of the network as a whole. This will entail investigating exactly which parts are constructed or planned and co-ordinating the required additional planning, design and construction.

The land use of this edge should also be carefully managed to complement rather than compromise the proposed walking / cycle route. Buildings should be oriented towards the route and low see-through fencing is recommended. A maximum of two storey buildings should be permitted along its course.

Upgrade pedestrian links from northern areas to town via provincial hospital and Queen Street and Long Street.

6.2.1(d) Urban Edge (see figure 6.4)

This section follows from Section 6.1.2 (c), where it was stated that the urban edge is a critical tool in light of the level of development pressure on sensitive areas. “Urban Edges are intended to include an adequate supply of land that can be efficiently provided with urban services (roads, sewers, water lines, stormwater systems and streetlights) to accommodate the expected growth of the urban area for a defined period” (Provincial Urban Edge Guidelines, 2005).

(i) Knysna

In the case of the Urban Edge for the town of Knysna, the full line on the Knysna Basin SDF map indicates the urban edge proposed for the next 3 to 5 years, whilst the broken line indicates areas where future development may be considered after this period, based on the outcome of more detailed studies on infill and densification. The urban edge follows cadastral boundaries wherever feasible, where there is uncertainty about the exact alignment of the urban edge, the guidelines included in the section on Policies for Development (Section 7.3) must be evaluated.

The urban edge runs along the shoreline of the eastern bank of the Knysna Estuary from the south west corner of the Knysna Golf Course to the White Bridge, then proceeds northwards along the east bank of the Knysna River, excluding the small holdings adjacent to it. It then turns inland between portions 17 and 18 of Farm Charlesford, runs along the northern and eastern boundary of Simola Estate (Erf 9242), then southward eastward excluding properties largely covered in indigenous vegetation. It then follows the southern boundary of the Salt River forest and the expropriated future N2 route eastwards to the northwest corner of Kruisfontein. Even though there is no current development in the Kruisfontein North area, to the east of Dam-se-
bos, the area has been included with the urban edge for the following reasons:
- need for further industrial land;
- need to relocate the portion of the Uniondale Road (R339) which passes through Dam-se-bos;
- growth of low income housing area;
- need for land for a future cemetery site at Kruisfontein.
The urban edge then follows the N2 back to the western boundary of Kruisfontein and runs southward to the northern western corner of Pezula Estate. Eastwards to the edge of the Pezula Estate, then south along its boundary, including all the erven in Noetzie, then the urban edge runs along the southern boundaries of the Pezula and Sparrebosch Estates westwards. The urban edge then follows Lagoonview Drive to Rexford, skirts the suburb and follows Wilson Street back to the south-western corner of the Knysna Golf Course. The Heads township has its own urban edge around existing developed area, whilst Leisure Isle and Thesen Islands are urban residential areas which are bounded by the Knysna Estuary.

(ii) Brenton-on-Sea
The urban edge runs eastward along the cliffs above the seashore, starting from the south-western end of CR Swart Drive, until the eastern end of Extension 1, then runs northward to the edge of the WK Grobler Road. The urban edge then runs westward along the WK Grobler Road, includes the community hall on Portion 81, then continues along CR Swart Drive to the north-western corner of Erf 1, and southward again to the coastal cliffs.

(iii) Brenton-on-Lake
The urban edge runs along the as-built alignment of Dolly Raats Road and Captain WA Duthie Drive, then south-eastward along the eastern edge of Portion 108 of Uitzicht 216. Any development outside this edge will need to comply with Province’s criteria for evaluation of resort development.

(iv) Belvidere
The urban edge runs southward along the 3m MSL contour above the Knysna Estuary from the northeast corner of Erf 11 to the southeast corner of Erf 441, then westward and northward along the railway line to the level crossing, then along the as built alignment of the DL1600, to the northwest corner of Erf 564, then eastward following the existing erven boundaries to the 3m MSL contour of the Knysna Estuary. The land to the north and south of this urban edge envelope is considered too steep for urban development. There is opportunity for limited low density development between the road and the railway-line, but this should not create the impression of a corridor through an urban area for either transport route, which is considered a tourism scenic route.

(v) Buffalo Bay
Owing to the lack of services capacity, no development or expansion can be considered in the foreseeable future.

(vi) Future Development Direction
Once all densification and infill options have been explored, the areas delineated by the broken line will be considered for inclusion within the urban edge. These include:
- The properties along the Gouna Road between Simola Estate and Concordia bounded on the north by the Gouna Road and commercial forestry plantations;
- The land east of Hornlee (Farm Lowlands No. 392);
- Remainder Farm Woodbourne No. 1399. The link between The Heads and Lagoon View Road, indicates the requirement for any future development on that property (also subject to the findings of the infill and densification studies) to include a
link road to alleviate traffic congestion in The Heads township, whilst avoiding further skyline intrusion which has occurred at Sparrebosch. Development of this area must also include a school site.

6.2.1(e) Special Planning Areas

Land that could be considered for sensitive development outside of the urban edge are:

- Remainder Farm Vrede No. 190, an isolated portion of land adjoining the northern boundary of Simola Estate as long as the development does not impinge on the sense of place of areas to the north, such as Gouna and Charlesford;
- Portion 18 of Farm Charlesford No. 192;
- Portions 71 and 77 of Farm Uitzicht No. 216 may contain resort developments which do not provide links for further development, as per the resort development on Portion 65 of Farm Uitzicht No. 216 (eastern side of Brenton-on-Sea).
6.2.2. Sedgefield (see figure 6.5)

This town is a secondary node in the regional settlement framework. However, it is clearly stated that it does not house urban activities at the same scale as Knysna Basin. Accordingly, most of the concepts applied, while having similar names, cannot be viewed in exactly the same manner as they are in the context of Knysna Basin. The issue of scale is very important to keep in mind here. The components of the framework include:

- Open Space System;
- Urban Corridors;
- Urban Nodes;
- Urban Edge.

The issue of scale, specifically in terms of Sedgefield being a smaller scale town than Knysna Basin, will come to the fore when the nature and form of specific proposals are discussed.

Key development proposals for the town include:

- Deepening of the tourism chain;
- Provision for service industries;
- Provision of a high school;
- Upgrading of bulk infrastructure (water supply and waste water treatment works in particular);
- Relocation of the future N2 route to avoid existing erven and allow for residential infill.

These should be applied within the following proposed framework.

6.2.2(a) Open Space System

The components of the open space system include:

- Core Conservation Areas and Ecological Corridors;
- Secondary conservation;
- Core productive areas;
- Passive recreation;
- Active recreation.

This system and the concepts that drive it, is the only case where the difference in scale between Knysna and Sedgefield are not relevant. This is so as a result of the fact that the system is driven by protection and enhancement of the natural environment. The natural systems have equal importance in terms of ecological value, hence should be afforded the same level of protection.

(i) Core Conservation Areas and Ecological Corridors

- The Swartvlei River;
- The Goukamma Nature Reserve;
- The dune system stretching from the mouth of the Swartvlei to Groenvlei in the east and Gericke's Point in the west;
- The ‘Fossil’ Dune between the future N2 route and the north-eastern portion of the Swartvlei (there is an identified mammal corridor between Swartvlei and Groenvlei along its northern face).

Each of these areas has a unique natural character and together contributes to the uniqueness and attractiveness of Sedgefield as a place and tourist destination. Furthermore they all have important ecological functions that should remain undisturbed. This includes portions of land containing pristine and near pristine coastal thicket and milkwood forests between Cola Beach and Goukamma Nature Reserve, east of Sedgefield.
The land west of The Island should be included in the core conservation category. Whilst it is private land, much of it lies below the 3m MSL floodline. A CSIR report recommends no further development below the 3m MSL as this will impinge on the floodplain of the Swartvlei and increase the likelihood of damage to property caused by flooding. This recommendation was adopted by the erstwhile Sedgefield Council.

⇒ **Land use management Guidelines**
- The implementation of the Knysna Municipal Open Space System;
- Low impact eco-tourism facilities and education related uses could be considered in areas of low sensitivity. Low impact resorts and education related uses may be acceptable in areas that are not environmentally sensitive;
- Where private property falls within areas identified as Core Conservation Areas, unless such land is acquired by conservation authorities, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties;
- The policy relating to development along Coastal Cliffs (Section 7.7.1.a) must be applied to the cliffs in the area;
- The policy relating to Development along Coastal Dunes (Section 7.8.1.b) must be applied to the dune areas if any development is to be considered.

**(ii) Secondary Conservation Areas**
This would include all land adjoining the core conservation areas mentioned above. Lake Pleasant Hotel and Lake Pleasant Resort are examples of such areas.

⇒ **Land use management Guidelines**
- The development of sensitive, low impact eco-tourism resorts could be considered on privately owned properties where appropriate;
- In more environmentally sensitive areas, land use is restricted to a low visual and environmental impact dwelling house (and normally associated outbuildings), sited in a position that will minimize environmental impact of both the dwelling house and the access route thereto, to the satisfaction of the Council, in consultation with environmental authorities. Size, finishes and colours of the structures must blend with the surrounding environment to the satisfaction of the above authorities. Additional non-consumptive activities such as those mentioned above could be considered where appropriate. Size of properties, proximity to other facilities and transport routes will be taken into account, as well as joint initiatives to form conservancies and conservation with development proposals involving several properties.
- The Southern Cape Regional Structure Plan, Knysna-Wilderness-Plettenberg Bay Regional Structure Plan, and Western Cape Guidelines for resort development provide clarity on the types and scale of tourism development that will be permitted on the property.
(iii) Core productive areas
- Steinhof plantations;
- SAFCOL plantations.

These are high yield forestry plantations that contribute significantly to the economy, and as such, should be maintained as forestry land. The possibility of establishing a sustainable mixed income, mixed use village at Ruigtevlei, which may displace an isolated portion of plantation is, however, not excluded.

⇒ Land use management Guidelines
- Maintain productive areas;
- The Western Cape: Guidelines for Resort Development should be adhered to.

(iv) Passive recreation
- Swartvlei Caravan Park;
- Beaches;
- River banks;
- Jetties.

These are key areas for public access to natural amenity and should be maintained and protected as public recreational spaces.

⇒ Land use management Guidelines
- The implementation of the Knysna Municipal Open Space System.
- Maintain as public facilities.

(v) Active recreation
- Sedgefield Sports ground;
- Smutsville Sports ground.

These facilities are among the very few active recreational spaces in the vicinity of the town. They should be upgraded and their shared use by a wide array of organizations and institutions encouraged.

6.2.2(b) Urban Corridors

Urban corridors in Sedgefield are not used by as many people as in the case of Knysna, and the scale and intensity of these are different. As a result they should not command equal levels of investment. Nevertheless, they are important in their local context and justify a degree of municipal investment.

(i) Mobility Corridor
- Future N2 By pass route

⇒ Land use management Guidelines
- It is proposed that the route be re-aligned further north to free up erven for residential development.
- As an alternative, one carriageway of the future N2 can be constructed to bypass the town, and the land between the service roads which is freed up thereby can be used for integrated development including ‘gap’ and ‘social’ housing, business and service trades.

(ii) Activity Street
- Sedgefield Main Street (North and South service roads)

The character of buildings and streetscape of the main street, as well as the pedestrian-friendliness should be maintained and promoted. Care should be taken to avoid dominance of retail signage. A common theme (building colours or style) should be promoted to provide an attractive and inviting streetscape from the N2 through-route.
(iii) Local activity Street
• Smutsville and Sizamile main street / taxi route
This is a critical ‘loop’ in the communities of Smutsville and Sizamile. It represents the ‘line’ that carries people to the ‘point’ related nodes, which are the hubs of activity in the local neighbourhoods. Upgrading of the quality of the sidewalks and street furniture within the road reserve will promote safety and ease of movement for residents.

(iv) Scenic Routes
• Lake Pleasant / Platbank Road;
• Barrington Road;
• ‘Cloud 9’ Road.
These routes represent scenic drives used by both vehicles and cyclists and which should be kept in good condition by the relevant authorities (Provincial Transport Branch) and promoted by the local tourism bureau.

(v) Pedestrian linkages
• Linking Smutsville and Sizamile with the CBD;
• Access to the coast;
• Along the river banks.
Upgrading of the quality of sidewalks and street furniture (as along Kingfisher Drive) will promote safety and ease of movement by residents.

6.2.2(c) Urban Nodes (see figure 6.5)
The nodes proposed in Sedgefield include:
• Primary Node (CBD);
• Local nodes;
• Tourism / Recreational nodes.

(i) Primary Node – Sedgefield CBD
Sedgefield is in a somewhat similar situation to Knysna, but, because of its linear CBD, it is more vulnerable to decentralisation of the business core. Whilst there may be smaller nodes outside the CBD, there should be a meaningful commitment to enhancing and strengthening the CBD itself, both in terms of its relationship to passing traffic, as well as to residents themselves.

Rather than continue to extend the business area parallel to the N2 route, the former Sedgefield Municipality’s policy was to promote ‘deepening’ of the CBD. This policy would assist in drawing the Sedgefield station precinct into the CBD area. Indirect linkages (transport, pedestrian) to Smutsville and Sizamile should also be encouraged.

⇒ Land use management Guidelines
• Sedgefield CBD enhancement study should be used to guide development in this area;
• Deepening rather than lengthening the CBD;
• Maintain primacy of the CBD;
• Link to Station precinct;
• Upgrade and promote pedestrian and cycle linkages to Smutsville / Sizamile.
(ii) Secondary (Local) Nodes
- Smutsville;
- Sizamile;
- Eastern node.
These nodes should have a distinct community facilities and services focus, with small-scale commercial components. Public space should also be a key element of these nodes.

(iii) Tourism / Recreational Node
- The Island / N2 node
  This should remain a primarily local commercial node. Its proximity to the N2 creates possibilities for further tourism-related development. Mall type developments devoid of any relationship with the street and which undermine the CBD should be avoided.
- Lake Pleasant
  This tourism node along the Groenvlei is adjacent to the Goukamma Nature Area and should not expand further as this would have a detrimental effect on the sensitive nature of the area.
- Western shore of Swartvlei
  This area contains tourist and water recreational facilities along the Swartvlei. Most accommodation is seasonal and based on short term rental pool. Development in this area should remain unchanged.

6.2.2(d) Urban Edge (see figure 6.5)

(i) Sedgefield
The urban edge must follow the existing urban fabric. Very little room for urban expansion exists in Sedgefield, primarily as a result of sensitive natural features (dunes and wetlands). Hence development should be limited to urban densification and infill areas, discussed in Section 7.1.2 and 7.1.3. Owing to the fact that services are at capacity, with not all existing development rights having been exercised, opportunities for densification and infill are and will be extremely limited, mainly in the case of conversion of existing rights, until water, sewerage and electrical infrastructure capacity has been upgraded.

The urban edge runs northward from eastern bank of the Swartvlei mouth along the 3m MSL contour all the way around to the N2. It then runs on the northern side of the N2 veering behind the Municipal workshops, then northward to below the slopes steeper than 25%, eastward along the bottom of the steeper slopes of the ‘fossil dune’ north of the railway line to opposite the Lake Pleasant turn-off of the N2, then southward to below the sewerage works. From there, it follows the property boundary to the eastern boundary of Erf 1634, and then following the outer edge of the Cola Beach township and then returning along the coast to the eastern bank of the Swartvlei mouth.

In areas where there is uncertainty about the exact alignment of the urban edge, the guidelines included in the section on Policies for Development (7.3) must be evaluated.
(ii) Future Development Direction
Further urban expansion is restricted by physical constraints to development, being the floodplain of the Swartvlei to the west, the ‘fossil’ dune and the Ruigtevlei to the north, and the Groenvlei and the Goukamma Nature Reserve to the east. In addition, the dune field between the mouth of the Swartvlei and the Groenvlei, running diagonally through southern Sedgefield, represent a unique system of their own, which has already been encroached upon by the Myoli Beach and Cola Beach developments. It is these natural barriers that are, in fact, the attraction to residents and visitors alike, and further encroachment by development should be strongly discouraged.

The establishment of a sustainable village at Ruigtevlei should, however, be investigated, owing to the presence of existing facilities (school and church). In order to avoid a segregated dormitory village, consideration is to be given to extending the urban edge to include properties to the north of the N2 through which a road link can be created to link the proposed Ruigtevlei integrated village with Sedgefield without having to use the N2. Care would need to be taken in the form and placement of development along the ridgeline north of the N2. Formalization of the railway crossing and construction of the roadway need to be attended to as part of the development process.

6.2.2(e) Special Planning Areas (see figure 6.5)

The ascending parabolic dune system between the mouth of the Swartvlei River and the Groenvlei was identified by Tinley (1985) in a survey of South Africa’s coastal dune system as being one of two areas within the Knysna Municipal Area where dune systems are of particular significance to conservation, unique coast dune areas requiring protection. The dune system has therefore been designated as core conservation area, but owing to the fact that a significant portion of the dune field forms a wedge within the urban form of Sedgefield, and that the eastern portion consists of a number of smallholdings, the affected areas are designated as special planning areas where low key environmentally sensitive nature orientated development could be considered.

Erf 4550 Sedgefield to the northwest of the Island in Sedgefield lies mostly below the 3m MSL level, but has two areas where low key environmentally sensitive nature orientated development could be considered.
6.2.3. Rheenendal / Keurhoek

These settlements are centred around the van Reenen’s saw-mill which dates back to the earlier part of the 20th century. The village of Rheenendal consists of a few shops and houses scattered around the sawmill, with a newer settlement for the sawmill workers (previously living at ‘Die Hoek’) and a further extension created by the Department of Land Affairs for displaced farm-workers and forestry workers.

6.2.3(a) Open Space System

The components of the open space system include:
- Core Conservation Areas and Ecological Corridors;
- Core productive areas;
- Active recreation.

Apart from the Homtini River corridor to the west of Rheenendal, a hiking trail was planned as part of the land reform housing project in the late 1990’s for the forested area to the south of the extension area. This initiative needs to be taken forward to fruition, as it can link in with the existing eco-tourism opportunities in the Millwood area further north.

(i) Core Conservation Areas and Ecological Corridors
- Proposed community operated trail in valley.

⇒ Land use management Guidelines
- Low impact tourism and educational facilities will be permitted.
- Implementation of the Knysna Municipal Open Space System.

(ii) Core productive areas
- Plantations.

⇒ Land use management Guidelines
- The Western Cape Provincial Guidelines for Resort Development should be adhered to;
- Productive areas are to be maintained.

(iii) Active recreation
- Sportsfields.

⇒ Land use management Guidelines
- The upgrading and sharing of existing facilities should be promoted before creating new facilities.

6.2.3(b) Urban Corridors

(i) Mobility Corridor
- Rheenendal-Karatara Road
The Rheenendal – Karatara Road, which is a potential tourism scenic route passes through the eastern sector of Rheenendal, and along the northern boundary of the Keurhoek area. The existing business node is along this road. In addition, there are several existing, undeveloped light industrial sites, which would have good access to the N2 along this road.

⇒ Land use management Guidelines
- Provincial roads are to be kept in good condition by the PGWC/EDM and promoted by the local tourism bureau.
(ii) Activity Street
- Taxi ‘loop’ Road
There is a local loop road through the settlement in the western sector which serves as a taxi route and which could serve a more functional purpose if upgraded to a more safe and pleasant public space.

⇒ Land use management Guidelines
- The upgrading of sidewalks and provision of street furniture should be undertaken.

6.2.3(c) Urban Nodes

(i) Primary node
- The scale of Rheenendal is such that there is no primary node as such. The small commercial cluster on the main road containing a filling station, post office and shops is the highest order node.

⇒ Land use management guidelines
- Promote tourism related development;
- Promote the re-use of the redundant sawmill site to promote local employment opportunities.

(ii) Local Nodes
- The cluster of community and educational facilities.

⇒ Land use management Guidelines
- Promote social investment and the shared use of facilities.

There is a need for infill between the two nodes in order to integrate the town, provide additional employment opportunities and produce synergy to create an economic base for the residents. Investment in a ‘gateway’ to improve the appearance of the settlement and to generate more economic spin-offs could be considered.

Development of the vacant light industrial sites for tourism-oriented undertakings would be preferable, but this may not materialize in that form, and employment generation in whatever form appropriate should be promoted.

6.2.3(d) Urban Edges

(i) Rheenendal/Keurhoek
- The urban edge of Rheenendal / Keurhoek follows the existing developed areas, with provision for development to link the two previously separate components of the town.

⇒ Land use management Guidelines
- Promote linkage of the two section of the town;
- Upgrade bulk infrastructure required in order to facilitate development.

6.2.3(e) Infill and Densification
Upgrading of the bulk infrastructure of the settlement will be necessary in order to permit development within this corridor.
6.2.4 Karatara

Karatara consists of two main components, the ‘Welsynsdorp’ which is a formally laid out township alongside the tarred portion of the old George – Knysna road, with full services, and the ‘Bosdorp’ which is a forestry workers’ settlement to the northeast thereof. A smaller, related component is Bergvallei, originally laid out to house domestic and maintenance workers relating to the ‘Welsynsdorp’.

6.2.4(a) Open Space System

The components of the open space system include:

- Core Conservation Areas and Ecological Corridors;
- Core productive areas;
- Active recreation.

(i) Core Conservation Areas and Ecological Corridors

- The nearby Karatara river valley offers opportunities for hiking trails and day walks;
- Indigenous forests.

⇒ Land use management Guidelines

- Low impact tourism and educational facilities will be permitted.
- Implementation of the Knysna Municipal Open Space System.

(ii) Core productive areas

- Plantations.

⇒ Land use management Guidelines

- The Western Cape Provincial Guidelines for Resort Development should be adhered to;
- Productive areas are to be maintained.

(iii) Active recreation

- Sportsfields.

⇒ Land use management Guidelines

- The upgrading and sharing of existing facilities should be promoted before creating new facilities.

6.2.4(b) Urban Corridors

(i) Mobility Corridor

- George – Knysna road (which links through to Rheenendal)

⇒ Land use management guidelines

- Provincial roads are to be kept in good condition by the PGWC/EDM and promoted by the local tourism bureau.

(ii) Activity Street

- Welsyndorp - ‘Bosdorp’ linkage.

⇒ Land use management Guidelines

- Infill development should be undertaken along this route;
- Upgrading of the sidewalks and provision of street furniture should also be undertaken.
6.2.4(c) Urban Nodes

There is no urban node as such, although the ‘Welsynsdorp’ contains community, commercial and educational facilities. A trading store exists on farmland on the southern side of the George – Knysna road. A portion of open space along the southern boundary of the ‘Welsynsdorp’ and along the main road offers the opportunity for exposure to passing tourism traffic. The establishment of a university campus in Karatara will contribute to the establishment of an economic base for the hamlet. Tourism-related development should be promoted along the Main Road.

6.2.4(d) Urban Edge

The urban edge of Karatara encompasses the two components of the hamlet and provides for the interlinking thereof with infill development. The Bergvallei cluster is not considered viable in the medium to long term because of servicing costs and should revert to agricultural use.

6.2.4(e) Infill and Densification

Karatara presents many opportunities for infill and limited, appropriate densification, but services capacity is a constraint. Until bulk services capacity upgrading takes place, little in the way of further development can be contemplated.
7.0. Policies for Development

This section is concerned with the policy guidance necessary to reinforce the conceptual and development frameworks. It provides a more detailed level of direction to the proposals imbedded in the development framework. The sectors requiring such strategic guidance include:

- Urban Densification and Infill;
- Sustainable Settlements;
- Urban Edges;
- Economic Development and Land use Implications;
- Historic Towns;
- Management of the N2 Bypass;
- Open Space System;
- Golf Course Developments.

7.1. Urban Densification and Infill Development

The role of urban densification and infill is to compliment and reinforce the sustainable restructuring of towns in the Municipality. Its purpose is to increase thresholds, to increase access to facilities and services, and to reduce bulk infrastructure costs.

The overarching objective of densification and infill development is restructuring and integrating the existing inequitable urban system created during the separatist apartheid era.

The components include:

- Various forms of Densification (additions, second dwellings, subdivision, site redevelopment, etc.);
- Infill Development;

### Table 7.1.a: Knysna Municipality projected growth rates

<table>
<thead>
<tr>
<th>Growth Rate</th>
<th>3.7%pa</th>
<th>5.16%pa</th>
<th>6.0%pa</th>
<th>7.0%pa</th>
<th>8.0%pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>88 726</td>
<td>104 369</td>
<td>123 301</td>
<td>141 950</td>
<td>163 206</td>
</tr>
<tr>
<td>Projections</td>
<td>(106 403)</td>
<td>(136 420)</td>
<td>(165 005)</td>
<td>(199 092)</td>
<td>(239 803)</td>
</tr>
<tr>
<td>Number of</td>
<td>25 350</td>
<td>29 920</td>
<td>35 229</td>
<td>40 557</td>
<td>46 630</td>
</tr>
<tr>
<td>households</td>
<td>(30 401)</td>
<td>(38 977)</td>
<td>(47 144)</td>
<td>(56 884)</td>
<td>(68 515)</td>
</tr>
<tr>
<td>@3.5p/hh</td>
<td>1 268</td>
<td>1 491</td>
<td>1 761</td>
<td>2 028</td>
<td>2 332</td>
</tr>
<tr>
<td>Land</td>
<td>(1 520)</td>
<td>(1 949)</td>
<td>(2 357)</td>
<td>(2 844)</td>
<td>(3 426)</td>
</tr>
<tr>
<td>Requirement @500m²/hh</td>
<td>1 775</td>
<td>2 087</td>
<td>2 465</td>
<td>2 839</td>
<td>3 265</td>
</tr>
<tr>
<td>or 20du/ha nett</td>
<td>(2 128)</td>
<td>(2 729)</td>
<td>(3 300)</td>
<td>(3 982)</td>
<td>(4 796)</td>
</tr>
<tr>
<td>Land Requirement + 40%, (ha) =</td>
<td>Knysna</td>
<td>10566</td>
<td>7346</td>
<td>3220</td>
<td>30</td>
</tr>
<tr>
<td>gross area</td>
<td>Sedgefield</td>
<td>3511</td>
<td>2565</td>
<td>946</td>
<td>27</td>
</tr>
<tr>
<td>Brenton</td>
<td>684</td>
<td>486</td>
<td>198</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Belvidere</td>
<td>340</td>
<td>294</td>
<td>46</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Buffalo Bay</td>
<td>422</td>
<td>411</td>
<td>11</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Rheenendal</td>
<td>647</td>
<td>586</td>
<td>61</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Karatara</td>
<td>240</td>
<td>131</td>
<td>109</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Total (2007)</td>
<td>16410</td>
<td>11819</td>
<td>4591</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

### Table 7.1.b: Registered erven (Vacant and developed) within the Knysna Municipal Area - 2007

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Registered Erven</th>
<th>Built Erven</th>
<th>Vacant Erven</th>
<th>Vacant Erven %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knysna</td>
<td>10566</td>
<td>7346</td>
<td>3220</td>
<td>30</td>
</tr>
<tr>
<td>Sedgefield</td>
<td>3511</td>
<td>2565</td>
<td>946</td>
<td>27</td>
</tr>
<tr>
<td>Brenton</td>
<td>684</td>
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<td>198</td>
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</tr>
<tr>
<td>Belvidere</td>
<td>340</td>
<td>294</td>
<td>46</td>
<td>14</td>
</tr>
<tr>
<td>Buffalo Bay</td>
<td>422</td>
<td>411</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Rheenendal</td>
<td>647</td>
<td>586</td>
<td>61</td>
<td>9</td>
</tr>
<tr>
<td>Karatara</td>
<td>240</td>
<td>131</td>
<td>109</td>
<td>45</td>
</tr>
<tr>
<td>Total (2007)</td>
<td>16410</td>
<td>11819</td>
<td>4591</td>
<td>28</td>
</tr>
</tbody>
</table>
Preliminary investigation of suitably located developable land within the Knysna Municipality shows that there is in fact potential to substantially address the housing backlog, as well as cater for the projected demand in terms of projected growth rates. Tables 7.1.a and 7.1.b above are an indication of the potential impact of capitalizing on these opportunities. The most recent estimate of the existing housing backlog (June 2005), was that there are approximately 6000 families that require formal dwellings.

### 7.1.1. Urban Densification

Table 7.2 details numerous types of densification possible, including what it involves, suitable areas for each, density guidelines and design considerations.

Densification should be encouraged in urban areas throughout the municipality, specifically along activity streets and around urban nodes. The demand for land within the towns (Knysna, Sedgefield) is as such that there will undoubtedly be uptake within the urban edge should these be made available, provided that services such as water and electricity can be provided.

If the existing capacity of bulk services does not allow for this, upgrading of bulk infrastructure (water reticulation, electricity, sewerage) must occur, as opposed to providing more bulk infrastructure further and further from existing urban areas, which will inevitably prove more costly in the long term.

Urban densification and infill should not be seen only as ‘compaction’ of the existing fabric, compromising the quality of environments. Rather, concern for the quality of urban environments must be demonstrated.

### 7.1.2. Knysna Basin and Sedgefield

Densification must be adopted at a broad policy level for both of these areas. It should be encouraged in specific areas where the service infrastructure capacity would allow it. As stated above, upgrading existing service infrastructure to allow for densification must be undertaken as opposed to continued provision of service infrastructure further and further away from existing urban areas. This also applies to private development which impacts on the overall sustainability of municipal service provision. The short term costs and long-term benefits of this approach will outweigh the long-term costs of reducing infrastructure provision costs in the short term, by providing services further and further away from existing urban areas.

Using the table describing types and appropriate locations (table 7.2), specific areas where this is desirable and realistic can be identified. These should be the focus of infrastructure upgrading (as opposed to isolated individual erven for example) so that returns on the investment of the municipality are maximized.

The process of densification in the town will most efficiently be achieved if municipal investment in improving bulk service infrastructure occurs in those areas best suited for densification in terms of the best possible locations for efficiently increasing bulk infrastructure capacity. Knysna Municipality is currently undertaking a densification study that identifies which areas are most appropriate for densification.

Densification and related municipal investment within Knysna Basin should occur in the lower CBD area first. This should be followed by incremental infrastructure upgrading in those areas identified in the Knysna Municipality Densification Study (2007).
Densification in Sedgefield should be promoted through municipal investment in increasing bulk service capacities in the CBD/Main Street area, as proposed in the Knysna Municipality Densification Study.

7.1.3. Infill Development

Infill development should be pursued on fairly large vacant land parcels that are well located in terms of access within the urban fabric. Key issues in terms of infill development in the Municipality relate to appropriate housing and infrastructure. It should as a first port of call be pursued on well located publicly owned land.

An investigation into the possibilities for infill in Knysna Basin has resulted in the identification of a number of land parcels that are well suited to infill development, most notably 'Heidevallei'.

Infill on smaller land parcels should also be encouraged when they are identified in more detailed planning exercises. These are the priority infill areas close to the centre of town that are critical in terms of integrating currently separated parts of the town. In addition to this, there are also numerous land parcels north east of the town, within the urban edge, which could be developed. However, it is preferable that this happen in a phased manner, developing only on land parcels that abut existing development, and in this way developing further north, so as to avoid urban sprawl.
1. Form of Densification: Additions

<table>
<thead>
<tr>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The extension of an existing dwelling unit and often occurs due to the need for expanded space for another household.</td>
<td>- Appropriate in low-density suburban environments; - The form/nature of addition should adhere to strict conditions in heritage areas.</td>
<td>-</td>
<td>- Additions should not impact negatively on streetscapes or the architectural character of areas (specifically heritage areas).</td>
</tr>
</tbody>
</table>

2. Form of Densification: Second Dwelling Units on Existing Sites

<table>
<thead>
<tr>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building second dwelling units on existing residential property with no subdivision required.</td>
<td>- Appropriate in low-density suburban environments, including 'internal' suburban areas, especially where existing coverage is below 50%; - Location of second dwelling units should be carefully considered in relation to impact on aesthetics of area (especially heritage areas).</td>
<td>-</td>
<td>- Impact on neighbouring properties and streetscape / architectural character; - Desired location at the back of existing dwellings; - Parking provision.</td>
</tr>
</tbody>
</table>

3. Form of Densification: Subdivision of existing sites

<table>
<thead>
<tr>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subdivision of existing properties to accommodate additional dwelling unit and associated outbuildings. Subdivision would not normally require rezoning.</td>
<td>- Appropriate in low-density suburban environments, including 'internal' suburban areas, especially larger properties; - Subdivisions should be allowed up to a maximum of half of the original erf size, provided that no resulting erf is less than 400m² where this is in keeping with service capacity and ruling densities in the vicinity; - Within heritage areas applications should be carefully considered.</td>
<td>-</td>
<td>- Impact on neighbouring properties and streetscape / architectural character; - Impact on neighbouring properties; - Access and parking.</td>
</tr>
</tbody>
</table>

4. Form of Densification: Redevelopment of larger site to higher density

<table>
<thead>
<tr>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redevelopment of existing sites to achieve higher densities and normally requires rezoning (and potentially subdivision).</td>
<td>- Appropriate in areas fronting onto integrating routes.</td>
<td>- Up to 40du/ha gross.</td>
<td>- Impact on neighbouring properties and streetscape / architectural character; - Traffic impact; - Access, parking and landscaping; - Capacity of municipal infrastructure.</td>
</tr>
</tbody>
</table>

Table 7.2: Densification options
Table 7.2 continued: Densification options

<table>
<thead>
<tr>
<th>5. Form of Densification: Infill Development</th>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of mainly publicly owned land, which is well located but under-utilised or exceeds requirements.</td>
<td>Nodes and identified major strategic sites for infill.</td>
<td>Where contextually suitable, promote up to 100du/ha gross in higher order nodal areas; Strategic sites should average out at approximately 40du/ha gross.</td>
<td>Urban design framework for site; Traffic, parking impact and requirements; Landscaping and quality public spaces; Areas should accommodate a range of densities, forms and income groups; Capacity of municipal infrastructure.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other infill sites.</td>
<td>Allow up to 40 du/ha gross.</td>
<td>As above.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Form of Densification: Site consolidation and redevelopment</th>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation of existing land parcels accompanied by change in zoning to permit developments such as apartment blocks and townhouse development.</td>
<td>As in 4.</td>
<td>Up to 40 du/ha gross.</td>
<td>Heritage impact where applicable; Urban design framework; Impact on neighbouring properties and streetscape / architectural character; Traffic impact; Access and parking, landscaping; Capacity of municipal infrastructure.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Form of Densification: Block consolidation and redevelopment</th>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation of blocks within street block to create single larger land parcel for redevelopment to multi storey flats.</td>
<td>As in 4.</td>
<td>Up to 40du/ha gross.</td>
<td>As in 6 including landscaping and quality public spaces.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Form of Densification: Mixed use development</th>
<th>Involves</th>
<th>Suitable Areas</th>
<th>Density Guideline</th>
<th>Design Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducing mix of uses (office, retail and residential) within multi storey building / low rise development.</td>
<td>Mainly CBD, specifically relating to buildings for conversion, though should be encouraged in nodal areas.</td>
<td>-</td>
<td>As in 6 including landscaping and quality public spaces / building interface with street; Compatibility of uses.</td>
<td></td>
</tr>
</tbody>
</table>
7.1.4. Housing and Infrastructure

It is important that issues relating to infill development and the future development of housing and infrastructure are unpacked. They include: securing land inside the urban edge; innovative partnerships; a range of housing types; and housing form and quality.

**i) Securing land**
This requires securing strategically located land (publicly owned or expropriated) within the urban edge before considering amendment of the existing preliminary edge.

As a start, the Municipality must look inward for available vacant land for the development of new housing and infrastructure. The Municipality recently undertook an audit of municipal land. The Municipality owns approximately 1,881 portions of land of various sizes. One hundred and ten portions were more than 11ha in extent and 1,771 less than 1 ha in extent. More than 600 portions are regarded as “developable”\(^1\). Suitable land parcels among these developable land parcels should be utilised for housing and infrastructure. The parcels identified for infill in section 7.1.3 serve as examples.

**ii) Innovative partnerships**
Innovative partnerships with the private sector are necessary for successful housing initiatives to occur. These should include examples such as initiating Public Housing Companies and partnerships that promote effective cross subsidization.

**iii) A Range of Housing Types**
It is critical that a range of housing types and income ranges are catered for. A ‘gradient’ of housing should be promoted. Affordable / subsidy housing should not be developed to the exclusion of middle income housing, which is at present a major gap in the housing market. Furthermore, public rental housing would be acceptable to the Municipality in a Social Housing project or in a private sector initiative.

**iv) Housing form and Quality**
A fundamental shift has occurred in housing discourse over the last number of years. This shift is evident in and to a large extent has resulted in the National Housing Policy: Breaking New Ground\(^1\), as being of paramount importance. It is a shift towards the provision of higher density, high quality housing, rather than an emphasis on the number of houses built and spatial form that perpetuates urban sprawl. It is argued that this form and quality of housing is critical to the provision of adequate shelter. A key aspect of providing high quality housing is moving away from standardization and promoting innovative design that ensures that housing is in sync with its surroundings and is aesthetically pleasing.

Many housing projects have proven that such housing can be provided within the housing subsidy, and in some cases with ‘top-ups’ from various sources (donors, additional government funding, cross-subsidisation, etc.). Some of these examples are illustrated below (see figures 7.5-7.11). The intention is not to propose the exact form, quality and aesthetics of these examples. The aim is to promote the principles of higher density and high quality housing that still has visual appeal. The aesthetics of housing in the Knysna Municipal Area should of course respond to its contextual character and uniqueness.

---
\(^1\) A Review of Knysna’s Integrated Development Plan: Introducing Knysna 2020, 2004

\(^1\) "Breaking New Ground": A comprehensive plan for the development of Sustainable Human Settlements, 2004
Top to bottom,
Figures 7.4; 7.5; 7.6:
Alternative affordable housing examples:
Top: Buffalo City, East London.
Below: Hull Street, Kimberly.
Clockwise-Figures 7.7-7.11: ‘gap’ housing examples:
Above & right: Royal Maitland, Cape Town
Below: Shayamoya, Durban
(a) Knysna Basin
An absolutely critical site for this type of development in the Knysna Basin is Heidevallei. It is arguably the best example of strategically located land close to the existing urban centre that will set a precedent for restructuring the town if utilized for infill development. The process of implementing this proposal has already been started by Council, and is already some way towards becoming a reality. The completion of the planning and eventual implementation of this project is imperative as a pilot for the completion of other developments of this nature.

Other land parcels that present similar opportunities are illustrated in Section 7.1.3.

(b) Sedgefield
The most critical land parcel for infill housing is the vacant land north of the railway station. It is a unique opportunity to provide well-located housing close to urban opportunities. Smaller land parcels within and close to Smutsville and Sizamile should also be considered for such development on a smaller scale.
7.2. Sustainable Rural Settlements

The framework discourages the establishment of new settlements outside existing settlements. A rigorous process of assessment and evaluation and appraisal is required prior to planning for such settlement development.

The first step is to ask a number of overriding questions in relation to the proposed new settlement development. These include:

- Is it possible to create an economically viable and self-sustaining rural settlement? This question relates to whether the natural resource base will support viable economic activity, and whether there are captive markets;
- What do we mean by ‘sustainable’ in the context of a rural setting (particularly in terms of sustainable long term employment opportunities);
- What are the implications from a utility service perspective (sustainability and affordability)? This relates to whether it is economically viable for the municipality to provide distant locations with utility service infrastructure as opposed to the costs of providing this infrastructure within existing urban areas.

The second is evaluating the proposed development against a number of pre-conditions. The minimum pre-conditions for such developments include:

- Expected job creation projects and programmes potential and prospects;
- The feasibility of the development concept and settlement layout;
- Institutional structure and development model (roles and structures of various players);
- The basis of partnership between role players;
- Estimated overall project costing, as well as potential funding sources need to be defined;
- The development path and process should be mapped and clarified before embarking on a detailed planning process.

These should be considered in the context of the questionable viability of Karatara and Rheenendal. Clear guidelines regarding their future are required from the Knysna Municipality Rural Economic Study. Preliminary findings indicate very limited opportunities. Therefore, no further housing development should be encouraged in these settlements at this stage. This may need to be reconsidered if the Rural Economic Study indicates potential to generate employment in these areas.

The proposed community university at Karatara is as yet not a certainty, therefore, it is not clear what the economic and employment benefits are at this stage. A cautious approach is advised at this stage.

One of the sector studies includes consideration of establishing a new rural settlement in Ruigtevlei, near Sedgefield. This proposal needs to be evaluated in terms of the above criteria. In addition, it should consider the possibility of alternative locations. It would also require a full Environmental Impact Assessment (EIA).
7.3. Urban Edges

The demarcation and possible amendment of the ‘draft’ portions of the edge should be proactive, and not occur in response to development applications outside the edge. It should occur with due consideration of other policy objectives such as the densification policy. Furthermore, the demarcation of the urban edge should occur through consultation with interested and affected parties, and it must be linked to a growth strategy. A number of urban edge determination criteria should be assessed when demarcating the urban edge in greater detail.

**Edge determination Criteria**

A number of issues, criteria and factors should be informants\(^\text{18}\) when considering amendment to urban edges in the case of the ‘draft’ sections of the edge. They include:

- Prominent landform and character;
- Valuable soils;
- Hydrology (surface and Groundwater features);
- Ecological resources (aquatic & terrestrial);
- Protected areas (conservation sites);
- High intensity/potential agricultural resources;
- Services Infrastructure (capacity and reach);
- Vacant / under-utilised land in urban area;
- High order roads, access routes and transport infrastructure;
- Cadastral boundaries of adjoining land units;
- Availability of developable land in urban area;
- Growth requirements over 10 – 20 year 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);
- Density policy for residential development in rural towns.

The criteria should be used for the following purposes:

- To determine where the edge should be located;
- To support decisions on the distance between the existing development and the urban edge;
- Consideration of application for the expansion or amendment of the urban edge.

The overall objective of edge demarcation is to provide clear direction on where growth should be discouraged and encouraged. It should also impact on land values and reduce the tendency for agricultural and rural land to be evaluated as future urban land in the property market.

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\(^{18}\) Also see provincial urban edge guidelines
7.4. Economic Development and Land Use Implications

The municipality has commissioned a number of studies in order to gain perspectives on the future of economic development in the area. This includes the current Rural Economic Development Study and Industrial Land Study as well as the Knysna Local Economic Development Study and Knysna Integrated Poverty Strategy completed in 2003 and 2004 respectively.

The Industrial Land Study investigated the possibility of relocating the existing industrial area and a number of possible sites were considered. These sites include areas close to Windheuwel and Springfield, as well as Kruisfontein. Preliminary findings indicate that it will not be feasible to relocate all of the industrial activities in the Hornlee industrial area. A number of activities in the industrial area are compatible with other urban activities, and it would be more feasible to promote mixed use in this area.

The Knysna Local Economic Development Study emphasises the need to set land aside within the existing urban centres for small business development, for emerging operators in particular, as well as dealing with informal arts and crafts in Knysna.

The possibility of business hives for arts and crafts are proposed. The informal arts and crafts market at the entrance to Knysna Town is one case in point that needs to be addressed urgently. The potential exists to resolve this problem on site.

Ensuring that local businesses are included in urban revitalization projects within the town centres is also of importance. This is of relevance with the increase in main line retail activity in the towns. The Rural Economic Study emphasises the continued importance of the rural areas for dairy farming, forestry and tourism. This necessitates the need to retain these extensive rural areas for agricultural activities, and the potential to strengthen this with eco-tourism related economic activities, as well as linkages to urban agricultural activities. The importance of incorporating large portions of this area into nature reserves and conservation areas is also emphasized.

7.5. Historical Towns

It is of critical importance that Knysna Basin and Sedgefield remain the focus of economic development as pressure increases for out of town shopping centres and retail facilities. The historical architectural and urban design ‘place’ making elements of the towns should be retained and enhanced. The impact of retail and commercial signage and building design of franchises should be minimised. Examples from Europe indicate that this is possible without compromising the architectural and historic character of town centres.
The challenge is to ensure that the towns do not remain static, rather, that they continuously regenerate themselves. Opportunities exist on the edge of town centres as well as around rail stations. A range of opportunities in terms of income ranges and housing typologies should be encouraged in the town CBDs.

The future of the CBD also requires that specific focus and consideration be given to establishing Main Street Committees and/or City Improvement Districts (CIDs) for the town centres. This would facilitate the identification and implementation of appropriate urban design guidelines; ensure that crime and crime issues are addressed; focus on parking and related problems; as well as encourage property owners to invest in renewing buildings along the Main Street and within the CBD.

### 7.6. Management of the N2 Bypass

The analysis of issues indicates that the resolution of the Knysna N2 Bypass is a matter of urgency. This is of particular importance for Knysna as the current route has negative impacts on the Main Road. The need for the proposed remainder of the N2 Bypass (i.e. from Buffelsnek westward to Sedgefield and beyond) is, however, questionable, as virtually no congestion issues exist along the rest of the existing N2.

This is also so in the case of Sedgefield, where adequate capacity exists with the dual carriageway and the adjacent service roads. The N2 road reserve along the Sedgefield Station is also more valuable for affordable housing opportunities and this should be given serious consideration.

Another concern is that the N2 Bypass will open the door for significant development opportunity, particularly at key interchanges.

While this opportunity will undoubtedly present itself with the construction of the bypass, a cautionary approach must be taken in regard to how it is capitalized on. The alignment of the N2 Bypass should also be reconciled with the urban edge demarcation, particularly for the areas to the north of Knysna.

The danger exists for the new interchanges to become prime sites for out of town shopping centres. This cannot be allowed due to the negative impact it will have on the CBD. Instead, the opportunity should be capitalized on in a manner that does not undermine the CBD. It should take the form of a local business/shopping node and filling station, that would capture the opportunities presented by passing traffic, as well as fulfill lower order shopping and convenience needs of the local community. Development applications should be evaluated by referring to the above statements as well as the policy relating to the bypass and out of town shopping centres below.

### 7.6.1. Retail Sequential Development Policy

The problems associated with the impact of out of town shopping centres on existing town centres are well documented. The current context, where no formal land use policy exists, has perpetuated a development led approach. Developers in essence submit proposals within a policy vacuum and the onus is on the municipality and environmental authorities to argue against this if they do not agree. This results in the municipality operating in a reactionary mode, being viewed as an obstacle to development rather than a facilitator.

This problem also exists in the United Kingdom, and local boroughs have responded by formulating the Retail Sequential Development Policy. This focuses on a plan-led system replacing the development-led approach and includes the following Sequential Testing Approach when considering applications for retail activity:
• The first area of search should be the town centre. If suitable land or premises are available in the centre, then that is where permission should be sought and granted;
• If no suitable site can be found in the centre of town, the next step in the sequence is to look in areas on the edge of the town centre. Even then the out-of-town site should be accessible by a range of modes of transport. It must be capable of being connected to public transport networks;
• Only if a developer can demonstrate that such a location within the town centre is not feasible, e.g. because of the lack of suitable sites, will a non-centre development be considered.

It is recognised that it may not be easy to fit a large amount of new shopping floor space into an existing town centre. Developers are required to consider whether it might be possible to accommodate the scheme in a different built form, or by sub-dividing large proposals to be more sympathetic to the scale of an existing town centre. This could also include converting or re-using existing buildings.

The municipality should assist by favourably considering required road closures, consolidation of erven and other required approvals. The municipality could also proactively identify town centre sites where the potential exist to accommodate new retail centres.

The Sequential Test presumes that new retail developments, including expansion of existing developments, will be in and around town centres, and not out of town. Therefore, the onus is placed on the developer to demonstrate why an exception should be made to existing policies.

7.6.2. N2 Access and Visual Corridor Policy

The portion of N2 designated as a scenic route should be subject to a number of policy guidelines for the long-term maintenance of its amenity value. They include:
• Businesses are to be located in existing urban areas and not be permitted to intrude into the rural landscape;
• The visual impact of developments along the N2, even if they do not access the N2 directly, must be taken into account;
• This is especially applicable for the N2 leading from Keyters Nek (Rheenendal turn-off) down to White Bridge, where a narrow visual corridor provides a dramatic approach to the Knysna estuary and the town of Knysna;
• The policy relating to ridgelines (Section 7.7.1.d) must be strictly adhered to when assessing applications along this corridor.

A similar policy is to apply to the new N2 route, as and when the final alignment is decided upon.
7. 7. Open Space System

7.7.1. Policies for Specific Sensitive Areas

There are a number of policies relating to specific sensitive areas, which should ideally be included in the core conservation category, but in some instances may not be. Either way, wherever these specific landscape types exist, the applicable policy guidelines must be enforced. These specific landscape types include:

- Coastal Cliffs and Coastal Dune areas;
- Forest Fringes;
- Ridgelines and Viewlines along Scenic Routes.

(a) Development along Coastal Cliffs

The Knysna Council Draft policy on Development along Coastal Cliffs forms the basis of the land use management guidelines proposed for coastal cliffs. The framework proposes the adoption of the policy, which includes:

- Development will be limited primarily to conservation, eco-tourism or educational use;
- There should be no further residential development along coastal cliffs;
- An appropriate building setback distance from the cliff-edge shall be investigated, at the applicant’s cost, in order to protect sensitive geotechnical formations (from disturbance, including infiltration by stormwater run-off) and vegetation, and to avoid inappropriate and insensitive development;
- The area below the setback line be zoned Public Open Space;
- Development shall be limited to less sensitive portions of a site, with public access to the cliff edge being critical;
- Sensitive areas should, where feasible, be consolidated and linked into a public open space system, as appropriate to the character of the development, and, where feasible, be managed as a nature reserve;
- Linear development along cliff-tops shall be avoided;
- Structures must be designed to reduce physical and visual impact below the skyline to be appropriate to their setting.

(b) Development on Coastal Dune Areas

Similar development principles to those of coastal cliffs must be adhered to. In addition, the relative speed and mobility of dynamic dunes must be taken into consideration.

- No development may be considered on a primary dune;
- An appropriate setback must be established, to prevent damage to a stable dune;
- In general, such areas should be subject to the provisions of the Outeniqua Sensitive Coastal Area Extension regulations.

(c) Development on Forest Fringes

Due care, in consultation with environmental authorities, must be exercised in developing areas adjacent to indigenous forest areas. This includes developments in urban areas as well as in rural areas.

- A suitable setback to protect canopies and root systems must be established by a suitably qualified person;
- That setback must not be disturbed in any way, including by buildings, structures, driveways, paved areas, etc., except to the extent where a persons primary right to erect a dwelling on the property may be unreasonably infringed.

(d) Development on Ridgelines and Viewlines along Scenic Routes

The Municipality must identify key ridgelines and view-lines that will have a visual impact on scenic routes.

- Development along such lines should be avoided;
• Where development is inevitable, the Municipality reserves the right to limit buildings within 5 contour metres of such a line to a single storey building not exceeding 6.0m above natural ground level at any point below the building;
• The design of the building must comply with accepted principles for reducing visual impact;
• There is a provincial policy on ridgeline development that needs to be consulted.

7.7.2. Managing the Open Space System

A key management issue in terms of the Knysna Open Space System is the necessity to co-ordinate management efforts of the range of categories of open spaces that are under the jurisdiction of numerous stakeholders. The major stakeholders in the municipality’s area of jurisdiction, in terms of the Open Space System include: the Municipality itself; Cape Nature Conservation; South African National Parks (SANParks); the Department of Water Affairs and Forestry (DWAF); South African Forestry Corporation Limited (SAFCOL) / Mountain To Ocean (MTO); owners of private nature reserves; and members of conservancies.

There is a need for a co-ordinating institution(s) to co-ordinate and ensure effective management of the numerous parts of the Open Space System. It is proposed that the Municipality (its environmental co-ordinator), along with Cape Nature Conservation, play such a role.

7.8. Golf Course and Polo Fields Developments

The Western Cape Golf Courses and Polo Fields Study\(^\text{19}\) provides strong policy guidance in relation to golf courses. These policy directives should be consulted if further golf course or polo field development is to be considered.

A number of locational criteria are discussed in relation to such developments. An important part of which includes recommendations that:
• there should be no further development of golf courses or polo fields in core conservation areas under any circumstances;
• that there are a very specific set of circumstances in relation to which they should be assessed if proposed in buffer areas of intensive agricultural areas; and
• that the most appropriate locations for them is within the urban edge.

Furthermore, there are a number of application requirements to be considered, which include:
• Considering alternatives;
• Spatial planning and land use issues;
• Cultural heritage;
• Biodiversity;
• Water resources;
• Infrastructure and services;
• Social impacts;
• Employment and skills development;
• Economic Impacts.

\(^{19}\) PGWC Golf Courses and Polo Fields Study, 2005
7.9. Settlement Upgrading

Informal settlements tend to be characterised by infrastructure that is inadequate, spatial environments that are of poor quality, population densities that are uncontrolled and may become uncontrollably high, dwellings that are inadequate, poor access to health and education facilities and employment opportunities, as well as a lack of effective government management.

Consequently, they are areas of increasingly high risk. However, they also exhibit an immensely strong sense of community, strong social infrastructure and are clearly areas where a significant level of personal investment has occurred. They should therefore be seen as places of vitality and opportunity and not just ‘problem areas’.

A number of objectives and guidelines have been set out in the Western Cape Manual for Upgrading Informal Settlements. These should be taken into account in the upgrading of informal settlements.

Social exclusion and poverty are the two major problems in informal settlements and as such, any upgrading strategy must have overcoming these two as its starting points.

The target areas for upgrading should be the worst affected parts of the Northern Areas in Knysna Basin, as well as parts of Smutsville and Sizamile.

Municipal investment in these areas should be focused towards:

- A growth management plan;
- Revitalization of urban environments;
  - Adequate public service and facilities provision;
  - A system of basic service oriented public spaces;
  - Improving streetscapes, paving, street lighting, landscaping;
- Land for grazing / small farming;
- Site(s) for initiation school(s).
Implementation Framework deals with the tools and mechanisms that will ensure the realisation of the proposals emerging from the SDF. This section consists of:

- **Action areas** for which proposals and further land use guidelines are detailed. These are focussed on the most critical land use issues relating to the specific action area;
- A Capital investment framework for catalytic projects (Lead Projects) within each action area.

### 8.1. Action areas

The purpose of dividing specific parts of the key settlements in the municipal area (Knysna, Sedgefield, Rheenendal and Karatara) into action areas is to allow the proposals in the SDF to be further unpacked and brought closer to a spatial scale, at which implementation is more tangible, as well as creating management areas in which specific themes relating to the nature and specific objectives of localised areas may be addressed.

The unique character of these action areas is addressed by formulating:

- specific policy guidelines;
- necessary planning and design projects;
- key actions necessary to kick-start these projects;
- an assessment of development applications in each of the action areas.

Projects identified with (*) are proposed as Lead Projects and are detailed further in the section on Catalytic Projects (see figure 8.3).
8.1.1. Knysna CBD

i) The policy guidelines focus on revitalising the CBD. This includes enhancing the primacy of the CBD by:
   - supporting existing businesses and attracting new business;
   - improving the quality of the built environment; and
   - maintaining and encouraging further development of the residential component of the CBD.

ii) The planning and design projects include:
   - commissioning an urban design framework for the CBD (public space framework, landscaping, building design guidelines, paving and lighting, etc.);
   - identifying specific development precincts within the CBD;
   - providing policy guidelines and design intervention for each precinct.
   These Precinct Plans should clearly indicate areas for predominant business development, residential use as well as mixed use areas.

iii) Key actions and pilot projects include:
   - implementing landscaping and a public space programme for the link between the intersection of Main and Grey Streets into the waterfront (*) as well as the link with Concordia Road;
   - Other projects include upgrading the CBD taxi rank (*) and other key public spaces and facilities;
   - The formation of a Main Street Committee and / or CBD Improvement District (CID) including both public and private organisations is also proposed.

iv) Assessment of development applications:
   - Consolidation of erven for larger developments that are out of scale with the existing CBD should be avoided.
   - Businesses should as far as possible be encouraged to locate within designated local business parks, in cases where these are abutting residential areas;
   - Redevelopment and upgrading of buildings along Main Road should be subject to urban design guidelines with advice from the proposed Main Street Committee or CID.

8.1.2. Northern Areas

i) The proposals & policy guidelines include:
   - further upgrading of the informal and formal settlements;
   - promoting the development of Concordia Road as an activity street, with significant focus on specific points or nodes, and mixed use development along a linear public transport route.
   The further development of Masifunde node as a secondary node is proposed, as well as the Nekkies Gateway and the pedestrian linkage with the Hornlee Gateway. The development of tertiary (local) nodes at Khayalethu and Concordia are also proposed.

ii) The planning and design projects include:
   - initiating a public space development programme for this area;
   - focussing on route quality (streets) and public spaces at nodes.
   A broad urban design framework has already been completed for the area and development of specific components of the design framework should now commence. This should include commissioning detailed architectural design and development of typical components of the proposed nodes (e.g. public and community facilities, public spaces as well as commercial components).
iii) **Key actions and pilot projects** include:

- upgrading the road surface and pavements along Concordia road and development of the Masifunde node (*); and
- developing the *Nekkies Urban Gateway* (*).

iv) **Assessment of development applications:**

- Private development applications for commercial and retail development with the potential for generating job opportunities should be favourably considered by the Municipality.
- Residential developments that retain or increase the unit densities in an improved built environment should also be encouraged.

### 8.1.3. Heidevallei & surrounds

i) The **proposals and policy guidelines:**

- Heidevallei is the last remaining strategically located site of significant size close to the CBD, and its land use should therefore be optimised for the broader Knysna community.
- Heidevallei and the surrounding undeveloped areas is key to integrate different parts of the town, developing an appropriate mix of housing types and land use and protecting the indigenous forest that exists in close proximity.

ii) The **planning and design projects** should include:

- Commissioning a detailed spatial development / design framework for Heidevallei and the surrounding vacant land; focussing on possibilities for appropriate infill development and mixed-use development on specific portions.
- Affordable housing should be a significant component of this site. Current proposals for the site from the claimants include

  - high-income housing. The municipality should pursue land-swapping portions of the site set aside for higher income developments for municipal land located further from the CBD. In this way more affordable housing could be provided close to jobs and facilities. Affordable housing implies a wide range of housing types with particular focus on ‘gap housing’ i.e. R 100 000 – R 350 000 category. Aspects to be included in the detailed spatial development framework include detailed design of the N2 / Heidevallei interface (key public edge), mixed use precinct development plan and a public pedestrian cycle link between the site and northern areas.

iii) **Key actions and pilot projects:**

- At this stage this should include reaching agreement with the land claimants and preparing the detailed spatial development framework.

### 8.1.4. Knysna East

i) The **proposals and policy guidelines** include:

- developing a *secondary node* at Hornlee by consolidating the existing facilities;
- developing new facilities and public space, and
- downgrading the existing N2 as an extension of Main Street (after completion of the N2 bypass) so that it accommodates a range of transport modes and facilitates pedestrian movement.

ii) The **proposed planning and design projects** include:

- a Spatial Development Framework for the greater Hornlee area.
- A detailed urban design framework for Hornlee Gateway and pedestrian linkage has already been completed.
Other opportunities that should be explored include promoting rehabilitation of land south of the sewerage works for mixed-use development and residential development and developing a range of higher density housing on the Municipal Golf Course, should the land become available in the future.

iii) The key actions and pilot projects include:
- developing the Hornlee Urban Gateway by implementing a public forecourt for the library, clinic and community hall;
- a stop and drop facility;
- a northern forecourt to address the interface to the N2 and pedestrian movement;
- a commercial forecourt to encourage positive interface to the existing building; and
- reinforcing the circular route in Hornlee that relates to the gateway precinct.

iv) Assessment of development applications:
- As with the Nekkies Gateway commercial and retail development that responds to the urban design framework for Hornlee should be encouraged and supported as far as possible
- Applications that would result in higher income housing in the area should also be encouraged in order to change the low-income nature of this largely dormitory suburb.

8.1.6. Western Head
i) The proposals and policy guidelines include:
- promoting the Western Head as a unique place-making feature, and managing it as the pillar of conservation in Knysna;
- promoting the Belvidere road towards Brenton-on-Sea as a scenic route with a new viewpoint at the end thereof;
- promoting a pedestrian / cycle route along parts of Belvedere road and the lagoon edge; and
- promoting strong enforcement and management of the urban edge.

ii) The proposed planning and design projects include:
- initiating a conservation and rehabilitation programme (alien clearing, erosion mitigation, dune conservation etc);
- commissioning designs for viewpoints and signage along this route, which also relate to the pedestrian / cycle route;

The West Hill / Paradise area has for a number of years been subject to a policy for considering subdivisions to less than the prescribed minimum erf size of 1 200 square metres (750sqm, subject to compliance with slopes, density and environmental factors). It was initially intended in the SDF that the suburb be considered for the first phase of urban densification, but indications are that the services capacity of the area has been reached and no further densification can be supported without significant upgrading of the reticulation in the suburb. As such, densification can only be considered on an incremental basis as the central town expands, as the lower central area has been identified for the first phase of densification.
• liaising with private land owners in areas where the pedestrian / cycle route is proposed and realign it if necessary.

iii) The **key actions and pilot projects** proposed include:
- establishing a process of engagement geared towards promoting conservancies through joint agreements with private landowners;
- providing signage along the road to Belvidere; and
- developing the western most viewpoint.

iv) **Assessment of development applications:**
- It is critical that any further developments in this area not detract from its unique character.
- Further non-residential development that generates additional income for land owners (e.g. guest houses, tourism facilities) should be considered, but within strict urban design criteria in terms of heights, screening, ridgelines and views from across the lagoon.
- The construction of environmentally friendly fences would be permitted rather than visually intrusive walls.

8.1.7. **Knysna Lagoon Edge**

i) The **proposals and policy guidelines** include:
- promoting public access and use of the lagoon edge as an important part of experiencing the key place-making element of Knysna Basin;
- promoting public recreation areas at parts of edge where public access exists for the greatest number of residents (public parks, viewpoints, public walking and cycle trails) and that focus on views of the lagoon.

ii) The **proposed planning and design projects** include:
- proceeding with detailed design and construction of Western gateway;
- commissioning detailed design for Knysna Multi-purpose Urban Park (public park, picnicking & braai areas, botanical gardens, ablution facilities etc);
- commissioning detailed design and construction of the pedestrian / cycle route along the lagoon edge; and
- proceeding with incremental development of viewpoints proposed in the SDF;
- the proposal to formalise the informal trading site(s) along the lagoon road into Knysna should be pursued\(^20\).

iii) The **key actions and pilot projects** include:
- liaising with potential key role players to involve in design and construction of walk / cycle way (South African National Roads Agency Ltd, Knysna Municipality, Rotary, etc.);
- completing the section of the pedestrian / cycle walkway from the Eastern Head to the existing boardwalk (close to the N2);
- developing the viewpoints at the end of George Rex Drive and the Western Head road, Northern Areas viewpoints; and
- implementing landscaping, public space and trading spaces at the Western Gateway.

iv) **Assessment of development applications:**
- Private development along the edge should not be detrimental to public access to the lagoon. Further applications should be assessed in terms of their ability to increase the extent of the public walkway along the edge of the lagoon.
- High and unattractive fencing obscuring views of the public walkways (and thereby increasing its vulnerability for crime)

\(^20\) Knysna Municipality Local Economic development Study, 2003
should not be allowed. The River Club is an excellent example of a private resort that has a positive interface with the public walkway, yet retains its private usage for visitors.

8.1.8. Greater Eastford area

i) The proposals and policy guidelines include:
- focussing future growth within the Knysna Basin in this area towards Simola.
- Development should be medium density as opposed to low-density development where existing rights will not be detrimentally affected;
- phasing of residential development in a sequential manner where residential development has to be developed abutting existing development in a northerly direction should occur;
- thorough visual impact analysis should be done and development is to be accompanied by environmentally sensitive visual impact mitigation.

ii) The proposed planning and design projects include:
- using the Welbedacht / Eastford Draft Structure Plan as basis for more detailed investigation into the quantity of developable land, as well the form of development that would optimally utilise the land without compromising the character of the area. A more detailed spatial plan should be prepared for this area.
- The Gouna road link with the Uniondale Road (diverted with the Simola development) is of importance and should guide the future growth path in this area.

iii) The key actions and pilot projects includes:
- a pilot project in partnership with the private sector to develop road and bulk services infrastructure immediately north of the

iv) Assessment of development applications:
- The Welbedacht / Eastford Draft Local Structure Plan represents a framework against which development applications in this area should be evaluated. A more detailed spatial development framework should be formulated using the former as a starting point.

8.1.9. Windheuwel area

i) The proposals for this area are:
- that no urban development (and low cost housing in particular) should be permitted within this area until such time that the land within the urban areas of Knysna Basin has been optimally used;
- that linkages with the Eastford area should also be explored within the detailed spatial plan; and
- that this area could be considered for grazing land for cattle belonging to residents of the Northern Areas.

8.1.10. Eastern Heads

No further residential development should be allowed on the Eastern Head beyond the extent of the existing urban development within the time frame of the SDF (3 to 5 years). Future development would have to include a link road and facilities such as a school site,
whereas development on the skyline and more sensitive slopes (especially south-facing) and wetland areas must be avoided.

8.1.11. Sedgefield: Smutsville and Sizamile

i) The proposals and policy guidelines for the area include:
   - local nodes in Smutsville and Sizamile;
   - a pedestrian linkage between these areas and the Main Street; as well as
   - avoiding urban development on sensitive dune areas.

ii) The key actions and pilot projects include:
   - implementing the public transport stop and drop facility and a new school site;
   - paving the sidewalks of the proposed pedestrian link, and
   - developing the vacant land parcels for infill housing.

iii) Assessment of development applications:
   - Tourism-oriented developments that would create local jobs (e.g. resort, bed and breakfast, retail, etc) should be encouraged and supported in this area;
   - Potential also exists in creating partnerships with private developers to redevelop the affordable housing at higher densities and including a broader range of incomes.

8.1.12. Sedgefield CBD & Station precinct

i) The proposals and policy guidelines include:
   - reinforcing the CBD and Main Street as the focus of retail and commercial activity;
   - utilising the limited land available for urban infill development optimally (adjacent to the station in particular), by pursuing mixed use housing precincts that include a range of housing types.

ii) The proposed planning and design projects include:
   - formulating an urban design framework for the CBD and Main Street; and
   - commissioning a detailed urban design framework for Sedgefield station precinct.

iii) The key actions and pilot projects include:
   - completing a detailed design for development of the station precinct, a range of housing typologies and public space and facility components;
   - initiating the formation of a Main Street Committee;
   - an assessment of utility services should also be undertaken to determine the potential for further residential densification.

iv) Assessment of development applications:
   - This should focus on residential intensification within the constraints of the capacity of utility services;
   - No further development rights should be allocated on the primary dune field along the coastline.

8.1.13. Rheenendal

i) The key proposals include:
   - improving the spatial functionality and quality of life of the residents; as well as
   - pursuing economic development initiatives emerging from the Rural Economic Study.
ii) The key actions and pilot projects include:
   - extending the existing entrepreneurial centre to include indigenous wood crafting, marketing and sales component,
   - commissioning a village gateway design that includes a regional fire training centre, a public transport stop and drop facility; as well as
   - upgrading existing library.

iii) Assessment of development applications:
   - This area is well suited for additional (limited) higher income residential development. Such development should, however be integrated as part of the town and not separate gated communities outside Rheenendal.

Larger land use agri-processing activities linked to the timber and farming activities should also be encouraged to locate in this area.

8.1.14. Karatara

The University proposal should be actively pursued. The university should, however, be designed as an integral part of the town (e.g. Stellenbosch University) and not as a separate component. This will require the preparation of a detailed urban design framework for the town, which includes public spaces and landscaping programmes. The development of a health spa or similar resort, based on the rural amenity of the town is an alternative.

Any further development in Karatara, however, will need upgrading of the bulk services capacity.
8.2. Proposed catalytic projects - “Lead Projects”

Aside from the projects proposed in each action area, a number of projects are highlighted as being critical to unlock the desired spatial relationships proposed in the SDF. The purpose of these projects is to give immediate effect to some of the proposals emerging from the SDF.

The aim of these projects is immediate strategic investment that will make significant contributions to the spatial and social development of the town. These projects are the leading actions, they represent ‘quick wins’ that begin the process of realisation of the long-term spatial vision emerging from the SDF.

Each is directly related to one or more of the strategic objectives emerging from Knysna 2020 strategic objectives (a caring and contented town, a successful and respected town, an attractive and sustainable town, a reliably functioning town, a financially sound town, dynamic and welcoming town, a town prepared for the future).
8.2.1. Grey Street / Waterfront pedestrian link and Taxi rank Upgrading

The ability of the CBD to remain the heart of the town is largely dependant upon public action to retain its primacy. The following are the most critical public actions required to begin the process of achieving this.

- Upgrade the existing taxi rank:
  - Upgrade the taxi shelters;
  - If necessary, alter circulation;
  - Provide street furniture;
  - Formalise structures for Informal Trade;
  - Provide lighting;
  - Provide water Points.

- Develop the pedestrian link between the N2 / Grey Street Intersection:
  - Pave and landscape the sidewalks;
  - Provide street furniture;
  - Provide appropriate lighting.

- Resolve and implement the pedestrian / cycle route to the connect western and eastern portions (around the Waterfront) of the integrated pedestrian/cycle route;

- Complete the pedestrian loop along Main Street, Grey Street, past the taxi rank and through Templemann Square;

- Maintain building / street interface:
  - Avoid excessive setbacks and excessive parking along this interface;
  - Promote the maintenance of Knysna’s architectural vernacular in terms of designing new buildings as well as renovation of old ones.

- Implement one way system along Waterfront Drive
  - Traffic studies have found that six lanes are required to accommodate traffic flows along Waterfront Drive. It has been recommended that rather than creating six lanes, that would be a major barrier between the waterfront and the central areas of town, that a four lane one way system is implemented.

8.2.2. Concordia Road surface upgrading and development of Masifunde Node

The Masifunde node is regarded as a key point along Concordia Activity Street, and as such, is proposed as the site for interventitive action that will promote it as the primary point of public social and economic activity. The actions required to achieve this include:

- Implement actions to improve the quality of the road surface of Concordia Road:
  - surface upgrading;
  - pave sidewalks.

- Implement a public space programme:
  - Develop hard public spaces (trading spaces for formal and informal trade, small taxi pick up and drop off lane) & soft public spaces (recreation/sporting venue);
  - Landscaping;
  - Street furniture;
  - Lighting;

- Liaising with the Provincial Department of Health and facilitating the development of a clinic;

- Extend the existing library;

Developing higher density residential precincts in undeveloped areas in close proximity to the node. If these are already planned as low density residential areas but undeveloped, plans should be reworked to increase residential densities and avoid standardisation of housing.
SECTION E - IMPLEMENTATION

Figure 8.4: Grey Street / Waterfront Pedestrian link and Taxi Rank Upgrading
Figure 8.5: Concordia Road surface upgrading and development of Masifunde Node

- Develop Masifunde Node
  - extend existing library
  - develop public space
  - landscaping
  - lighting
  - street furniture

- Re-align problematic alignments along activity street

- Improve surfacing, landscaping and pavements along activity street

- Develop medium density housing on land in close proximity to node

- Problematic existing alignment

- Clear edge definition between urban development and indigenous forest

- Protect indigenous forest from urban development
8.2.3. Nekkies and Hornlee Gateways and Pedestrian link

The route between the proposed Hornlee and Nekkies Gateways is critical to the majority of the Knysna population. This, along with the two gateways is critical in terms of integrating the activities of communities that represent the majority of Knysna’s residents. The necessary actions required to achieve this include:

- Develop the Hornlee Gateway:
  - Implement a public forecourt to address the library, clinic and community hall.
- Develop the Nekkies / Sanlam Gateway:
  - Develop Informal trading space;
  - Develop taxi stop and drop facility.
- Develop the pedestrian linkage:
  - Paving sidewalks (partly completed);
  - Landscaping;
  - Improve lighting.
- Implement infill development in surrounding areas to increase thresholds:
  - Facilitating infill development at Heidevallei, Kruisfontein and the land south of the N2.

Other required actions include liaising with relevant provincial departments for facilities provision (e.g. health, education, etc.), implementing public gathering spaces landscaping, public water points, lighting, seating walls at proposed nodes, as well as increasing densities on strategic land parcels that may be planned, yet are undeveloped.
8.2.4. Development of Heidevallei and N2 Street interface

The most critical issue in regard to this site is ensuring its optimal use due to its inherent value in potentially providing land for housing, as well as integrating the town. To achieve this, a number of actions are required. They include:

- Optimising the use of land by increasing densities in particular areas of the site;
- Ensuring that the most desirable interface exists along the site / N2 edge through design interventions:
  - Pedestrianisation of the N2;
  - Landscaping the street;
  - Ensuring architectural design is in keeping with the character of Knysna, creates enclosure, and is at a human scale;
  - Providing simple street furniture;
  - Street lighting.
- Developing a mixed use edge along the southern edge of the site abutting the N2;
- Implement a pedestrian / cycle path linking Heidevallei with a proposed viewpoint in the Northern Areas;
- Ensure clear edge definition between urban development and indigenous forests to the north of this development;
- Maintaining key edges as public edges (e.g. N2, forest edge).
- Promote passive recreational use of indigenous forests (e.g. walking trails).

Figure 8.7: Development of Heidevallei and N2 Street interface
8.2.5. Western Head Scenic Route, Viewpoint and Pedestrian / Cycle Route

- Implement signage along the scenic route;
- Develop the proposed viewpoints, implementing the western viewpoint first because of its relationship with the scenic route and pedestrian/cycle path;
- Pedestrian / Cycle Route (2 options):
  - Option 1: Ideal option, along lagoon edge, but it may prove difficult obtaining land ownership. If it is possible, negotiate with the private landowners in this regard;
  - Option 2: Continues along Belvedere / Brenton road.
- Prohibit any further no urban development outside the urban edge;
- Encourage tourism related / eco-friendly resort development:
  - environmental design that avoids ridgelines and mitigates visual impacts, uses energy efficient innovations, etc..
- Encourage / promote nodal development (a possible location is shown, but will require more detailed environmental assessment);
- Encourage public access to the beach through the development of low impact pedestrian paths over coastal dunes towards the beach (this could be negotiated with private land owners as a condition of development of resorts or restaurants for example).
SECTION E - IMPLEMENTATION

Figure 8.8: Western Head Scenic Route, Viewpoint and Pedestrian / Cycle Route

- Core Productive Area: Rehabilitate in the long term
- Develop Viewpoint: - picnic area - landscaping - hard open space
- Scenic Route - Signage
- Example of locating nodal resort / eco-tourism cluster
- Lagoon Edge Management
- Pedestrian Route: Option 1
- Pedestrian Route: Option 2
- Urban Edge - No urban development outside
- Core Conservation Area
- Walking trails down to beach
8.2.6. Eastern Lagoon Edge Multi-purpose Park and Pedestrian / Cycle Way

- Maintain the existing public lagoon edge as public;
- Develop the undeveloped elements of Knysna Lagoon Edge Multi-purpose Park:
  - Knysna Municipal Sports Complex;
  - Braai and picnic area;
  - Pedestrian walkway;
  - Botanical garden;
- Maintain an active interface along George Rex Drive, south of proposed sports complex:
  - Ensure public edge (urban / green interface);
  - Ensure strong edge definition.
- Develop the pedestrian / cycleway between the Eastern Head and the existing path at the northern edge portion of George Rex Drive;
- Promote rehabilitation of land south of sewerage works for mixed-use development and residential development;
- Should the land become available, develop a range of higher density housing on the Municipal Golf Course.

Figure 8.9: Eastern Lagoon Edge Multi-purpose Park and Pedestrian / Cycle Way
8.2.7. Sedgefield Station Precinct Design Framework

- Commission an urban design framework to revise existing sub-division around station precinct, placing greater emphasis on mixed-use development around the station precinct;
- Ensure co-ordination of relevant departments in the design and development of the precinct (planning, housing, engineering, community services, etc.);
- Set clear criteria regarding the key elements of the precinct that need to be met by the design framework, such as:
  - Ensure optimal use of land available for housing by increasing densities;
  - Provide for a full spectrum of housing opportunities (low income to high income);
  - Integrate public facilities and public space components with housing in the station precinct;
  - Make provision for areas for economic activity by capitalising on the opportunities presented by the location of the station;
  - Maintain a strong pedestrian link between the proposed development and the Main Street / CBD.

- Develop key elements of the public structure of the precinct:
  - Pedestrian linkage to the CBD;
  - Landscaping;
  - Hard and soft public spaces;
  - Street lighting.

8.2.8. Smutsville / Sizamile public transport stop and drop facility and improve spatial quality along the proposed pedestrian link

- Develop a stop and drop facility for busses and taxis. The key elements to be developed by the municipality include:
  - Paved and sheltered stop and drop area;
  - Landscaping that lines this space;
  - Ablution facilities.
- Improve pedestrian environment along Oestervanger, Volstruis, Makou and Swallow streets by paving and landscaping sidewalks of the proposed linkage;
- Phase these improvements starting in Smutsville and Sizamile and working towards the CBD.

8.2.9. Rheenendal stop and drop facility and library upgrading at the Village Gateway

- Develop a stop and drop facility for busses and taxis. The key elements to be developed by the municipality include:
  - Paved and sheltered stop and drop area;
  - Landscaping that lines this space;
  - Ablution facilities.
- Upgrade library to accommodate a communications / information centre.
8.3. 5-Year Targets for the SDF (2012)

8.3.1. Urban Densification and Infill

i) Review of identified urban edges;
ii) Urban development limited to eastern sides of rivers;
iii) Upgrading of services infrastructure to permit residential densification in Knysna and Sedgefield;
iv) Approvals for Kruisfontein development;
v) Policy and strategy regarding urban densification and infill adopted;

8.3.2 Housing and Utility Infrastructure

i) Completion of social housing projects;
ii) Completion of Fisherhaven / Hornlee infill development;
iii) Development of Heidevallei nearing completion;
iv) Policy for social augmentation implemented;
v) Completion of upgrading of infrastructure for economic development in Karatara and Rheenendal.

8.3.3 Sustainable Rural Settlements

i) Establishment of university campus and tourism node in Karatara;
ii) Establishment of economic base for Rheenendal (industrial park);
iii) Establishment of tourism development routes between N2 and Karatara and Rheenendal respectively.

8.3.4 Industrial Land

i) Existing industrial area upgraded / redeveloped;
ii) Industrial park established at Rheenendal;
iii) Establishment of small-scale business clusters as LED projects in appropriate locations;

8.3.5 Historical Towns

i) Development guidelines for all settlements in municipal area formulated or revised, and effectively implemented;
ii) Sequential Retail Development Policy implemented;
iii) Primacy of historical CBD’s retained, but with improved access to services for all residents through establishment of neighbourhood centres where economically viable;
iv) Appropriate redevelopment of available ‘brown-fields’ and ‘green-fields’ sites within the historical cores of the towns.

8.3.6 Management of the N2 Bypass (and other Transport Infrastructure)

i) Existing N2 corridor policy implemented;
ii) Future N2 corridor policy formulated;
iii) Agreement on alternative route for N2 Bypass at Sedgefield;
iv) Construction of N2 Bypass completed or nearing completion (SANRAL);
v) Re-alignment of N2 / Uniondale / Noetzie Road intersection (SANRAL / Provincial roads)
vi) Upgrading of Lagoon Road completed (Provincial Roads);
vii) Development of Concordia Road as an activity street;
viii) Development of pedestrian / cycle way along Vigilance Drive;
ix) Implementation of one-way pair in lower central Knysna;
x) Construction of re-aligned Uniondale inter-regional road;
xi) Upgrading of Rheenendal – Karatara road (Provincial roads);
 xii) Establishment of alternative access routes for Hornlee and Northern Areas;
 xiii) Improved linkages between settlements, but avoiding unnecessary disturbance of ecologically sensitive areas.

8.3.7 Environmental and Visually Sensitive Areas

   i) Ridgeline, dune and cliff-edge protection policies implemented;
   ii) Fynbos links identified and implemented;
   iii) Forest corridors identified and implemented;
   iv) Implementation of Knysna Municipal Open Space System;
   v) Partnerships between landowners, conservation authorities and municipality established in order to promote biodiversity conservation;
   vi) Rural landowners committed to establishing and rehabilitating ecological corridors;
   vii) Core conservation area extended to include municipal forests and other identified areas.

8.3.8 Lead Projects

Implementation of agreed lead projects:
   i) Main Street / Waterfront pedestrian link and Taxi Rank Upgrading;
   ii) Concordia Road surface upgrading and development of Masifunde Node;
   iii) Nekkies and Hornlee Gateways and Pedestrian link;
   iv) Development of Heidevallei and N2 street interface;
   v) Western Head scenic route, Viewpoint and Pedestrian / Cycle Route;
   vi) Eastern Lagoon Edge Multi-purpose Park and Pedestrian / Cycle Way.
9.0. Conclusion and Recommendations

This report provides a sound basis and framework to guide and direct spatial planning and development in the Knysna Municipal Area. It is recommended that the report be made available for public comment and input. The report should be submitted as a component of the IDP and budgetary provision should be made accordingly. The report also should be evaluated annually as part of the IDP review process and be fully updated every five years, together with the IDP.
10.0. References


Provincial Government of the Western Cape (2005) Golf Courses and Polo Fields Policy


National Housing Policy (2005), ‘Breaking New Ground’
ANNEXURES

STUDIES AND POLICY GUIDELINES
ANNEXURE 1:

POSSIBLE DEVELOPMENT SCENARIOS
Annexure 1: Possible Development Scenarios

The current state of Knysna Municipality has been shaped by the development trends that have persisted over the past number of decades. Two options exist in terms of how it will be shaped in the future. Both are hinged upon the role the Municipality chooses to play in reinforcing and counteracting specific development trends.

The first is for the Municipality to continue along its current path of growth and development, making little change to current approaches. The second is for the Municipality to shift its approach fundamentally, being more proactive in guiding spatial development.

This section aims to uncover the most sustainable future development path for Knysna Municipality by squaring two development scenarios up against one another, assuming external trends remain fairly constant. The approach, spatial outcomes of this approach, and the cost implications thereof, are discussed in relation to each scenario. Infrastructure investment is the recurring theme that drives each scenario.

Firstly, the “Business as Usual” scenario is discussed as an option. Secondly, the current National, Provincial, and Local Planning and Policy context is considered. Thirdly, appropriate Spatial Principles in light of this policy context and the status quo are discussed.

It is shown very clearly from this consideration, that if the Municipality is committed to meaningful change, and becoming “A Town for All”, it is critical that an alternative approach to “Business as Usual” must be adopted with immediate effect. What follows is an alternative approach, that of “SMART GROWTH”, an entirely different scenario, underpinned by changing patterns of investment. It represents a means through which the municipality can ensure long-term prosperity.

1. Scenario 1: “Business as Usual”

This scenario represents spatial outcomes and cost implications of a ‘business as usual’ course of action. It is characterised by continued occurrence of existing trends.

1.1. Approach

This approach is characterised by municipal investment not being strategic, but haphazard. It is one where reaction to problems and issues drive investment, as opposed to being guided by a clear spatial strategy. Furthermore, key development challenges are not pro-actively addressed. Examples of which include, continued location of subsidy housing at the periphery of towns, little guidance for appropriate locations and nature of economic investment, uncoordinated and haphazard investment in facilities and services, and uncoordinated and incomplete protection of sensitive natural areas.

1.2. Spatial Outcomes

The overarching spatial outcome of such an approach will be that existing inequitable spatial patterns, resulting from investment patterns of the past, will be reinforced and further entrenched. These will include inequitable access to opportunities (continued poverty and inequality), due to affordable housing being poorly located at the periphery of towns, a declining economic hub (declining investment in the CBD) as economic activity spreads to numerous decentralised locations as market forces become the major determinant of spatial location, poor access to services and facilities for the majority of residents, under-utilisation of existing facilities, continued destruction of the natural resource base (sprawl, inefficient non-renewable resource use) and loss of Knysna as a ‘place’.

1.3. Cost Implications

The most significant cost implication of the ‘business as usual’ course of action is increased municipal costs in terms of investment in
infrastructure. Longer service runs will result in burdening the Municipality with increasing and inefficient bulk infrastructure maintenance expenses, and expensive new infrastructural provision to peripheral locations of new facilities and services. Furthermore, increasing personal cost will be imposed on residents as a result of longer travel distances being more costly in terms of time and financial expense. People will have to travel further, for longer periods and at greater personal expense as a result of economic opportunities, facilities and services being located far from areas of residence. The Municipality and its residents alike will also suffer significant economic costs as the backbone of the economy (the natural resource base) is undermined to the degree that the economy begins to decline. ‘Business as usual’ will inevitably ‘kill the goose that lays the golden egg’.

(See Annexure 4 for Scenario 2: Smart Growth Scenario)
ANNEXURE 2:

THE CURRENT PLANNING AND POLICY CONTEXT
Annexure 2: The Current Planning and Policy Context

This section incorporates, in a holistic manner, a number of policy objectives from varying levels of government, namely National, Provincial and Local Government. It illuminates those directives imbedded in National, Provincial and Local policy and legislation that pertain to, and should inform the normative basis for intervention in Knysna Municipality. These are merged with a philosophical position about settlement making. The result of which is a number of normative principles that will underpin intervention in Knysna Municipality.

1. National Planning and Policy Context
The key national policy directives in relation to the Knysna SDF include the National Spatial Development Perspective (NSDP), and the National Housing Policy: Breaking New Ground.

(a) National Spatial Development Perspective
The NSDP proposes a number of normative principles that should guide municipal investment. These include:
- Economic growth is a prerequisite for the achievement of other policy objectives;
- Government spending on fixed investment should be focused on places of economic growth and potential. This will play a role in attracting private-sector investment, stimulating sustainable economic activities, and creating employment opportunities;
- Focus on people, not places in order to address past and current social inequalities. Places of high levels of poverty and development potential should receive fixed capital investment. In areas of low development potential and high levels of poverty, the development focus should be on providing social transfers, human resource development and labour market intelligence in order to capacitate people to access economic opportunities;
- Future settlement and economic development opportunities should be channelled into activity corridors and nodes adjoining or linked to main growth centres. This will play a role in overcoming spatial distortions of apartheid.

(b) National Housing Policy: Breaking New Ground
The National Housing Policy ‘Breaking New Ground’, proposes a fundamental shift from delivery of housing to development of sustainable settlements. This is defined as, “well managed entities in which economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity”. There is a distinct focus on densification and intensification as opposed to continued urban sprawl. Furthermore, innovation and partnerships between various stakeholders is promoted.

The principles to be upheld and promoted in housing development include:
- The housing needs of the poor;
- Choice of housing and tenure options;
- Economic, fiscal, social and financial affordability and sustainability;
- Integrated development planning;
- Environmental sustainability;
- Principles of good governance: transparency, accountability and equitability;
- Empowerment through building capacity;
- Consumer education and protection;
- Socially and economically viable communities;

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22 National Housing Policy-‘Breaking New Ground’, 2005
• Safe and healthy living conditions;
• Racial, social, economic and physical integration in urban and rural areas;
• The effective functioning of the housing market and level playing fields;
• Equality in respect of gender, race, creed, class, etc.;
• Higher densities and the economical utilisation of land and services;
• Special needs, including those of the disabled and the housing needs of the marginalised, including women and other disadvantaged groups;
• Community and recreational facilities in residential areas;
• Expression of cultural identify and diversity in housing development;
• Participation

2. Provincial Planning and Policy
The key provincial policy thrusts that relate to the Knysna SDF are imbedded in the Provincial Spatial Development Framework (PSDF), the Western Cape Provincial Urban Edge Guidelines and the Western Cape Golf Courses and Polo Fields Policy.

(a) Western Cape Provincial Spatial Development Framework (Dec 2005)
The Provincial Spatial Development Framework reinforces, and is aligned with, the NSDP. Emphasis is placed on the growth potential of towns, stating that infrastructure investment must be aligned with growth potential. The proposals focus on efforts for greater resource conservation, urban restructuring and regional linkages that seek to overcome spatial inequalities created by apartheid and human resource and economic development.

(b) Provincial Urban Edge Guidelines (Dec 2005)
The guidelines state the importance of and need for urban edges as a key element in ensuring spatial restructuring. They emphasise the need for delineation of edges as a means through which natural resources can be protected, as well as efficiency of resource use (reduced municipal spending on bulk infrastructure) can be achieved.

3. Local Planning and Policy Context
In the context of local planning and policy, the Eden Spatial Development Framework and the Review of the Knysna Integrated Development Plan – Introducing Knysna 2020 are relevant.

(a) Eden Spatial Development Framework
The Eden District Spatial Development Framework requires that sustainable development be the driving force behind spatial planning. It states that the key principles that should drive the local municipal spatial development frameworks are human well-being, environmental integrity, and economic efficiency.

(b) Knysna 2020
The need for a Spatial Development Framework is considered to be a critical part of Integrated Development Planning (IDP) and thus is an important aspect of the Knysna 2020 vision.

Knysna 2020 has seven strategic objectives, with which the Spatial Development Framework must align. They Include:
• A caring and contented town;
• A successful and respected town;
• An attractive and sustainable town;
• A reliably functioning town;
• A financially sound town;
• A dynamic and welcoming town;
• A town prepared for the future.

Furthermore, one of the action programmes for the municipality is that of ‘spatial direction’, which the spatial development framework should drive.

Notwithstanding the IDP Vision Statement, which is an overarching vision, it is appropriate that a specific vision be formulated for the spatial development of the Knysna Municipal Area. It is proposed that the spatial development vision for Knysna Municipality is that of, “Creating a community which co-exists within a unique natural, socio-economic and cultural environment that is a model of sustainability”.
ANNEXURE 3:

SPATIAL PRINCIPLES
Annexure 3: Spatial Principles

The spatial principles presented are normative guidelines that should be achieved in Knysna Municipality as a whole, and the individual settlements that exist within it, if is to prosper as a ‘town for all’. While striving towards specific spatial outcomes, the principles are driven by concerns relating to performance. Performance is essentially related to protecting assets while meeting needs. The key spatial principles that should guide development in the Municipality are Growth and Equity, Integration, and Sustainability.

In the case of Knysna Municipality, achieving good performance can be defined as a measure of the degree to which the needs (economic and social) of the population are met, and the interaction between settlements and the environment in meeting these needs. The way in which this interaction occurs has implications for whether or not the needs of the population will be met in the future. The aim is to ensure that current needs are met, without exploiting the natural resource base to the extent that its ability to meet future needs is undermined. The spatial principles are informed by the goals proposed in the “Spatial Development Framework: Phase 1”23.

1. Growth & Equity

Growth and equity are related to the economic well being of the population and the Municipality. The overarching aim is to ensure greater economic equity among the population, as well as broader economic growth and development. The goal proposed in the first phase of the SDF, that is relevant here, is “to promote sustainable economic growth and development of all sectors of the economy”24.

Economic growth and development (strengthening and growing the economy) should be promoted across the municipality and the spatial requirements in terms of appropriately located land should be sought by the municipality to ensure this. Equitable access is critical, in particular for those with the least access to opportunities. Efforts should focus on ensuring more equitable access to social facilities and land for example.

A key aspect of ensuring economic growth and equitable economic development is ensuring that ‘human capital’ is developed. Human growth and development in terms of investment directed at improved levels of education, literacy, skills development and training are paramount in Knysna Municipality, as it is across South Africa as a whole.

Underpinning economic and social development should be an ethos of equity and fairness. Fair and equitable distribution of resources and opportunities will prove an important measure of whether holistic growth and equity has been achieved. This ethos does not assume that everyone should have equal access to the same levels or type of resources or opportunities, but that all residents have access to an acceptable level of opportunities that meet their most basic economic and social needs. This includes equitable spatial distribution of, and access to, the benefits of economic growth (employment), social and recreational opportunities (facilities and services).

Furthermore, perhaps one of the most important aspects of the growth and equity is a specific focus on the ‘lowest common denominator’. This implies that the emphasis in terms of creating and distributing opportunities such as employment, facilities and services should be on poorest sectors of society.

23 Knysna Municipality, January 2004
24 Knysna Municipality, January 2004
2. Integration
Integration as a principle has many facets. It has spatial, functional, and social manifestations, each of which has significance. The goal proposed in Phase 1 of the SDF that is most strongly supported by the principle of integration, is goal 2, “to facilitate the provision of the basic needs of all the people of Knysna”.

Spatial Integration has importance for numerous reasons, the most critical of which, is counteracting the separatist legacy of apartheid that almost every South African city and town carries. As opposed to spatial separation and segregation, a key challenge in spatial planning in contemporary times is integrating urban space and activities in these separated entities that are our towns and cities. The benefits of spatial integration relate to increased access to opportunities, more efficient service and facility provision, more efficient transport networks and the economic benefits of agglomeration. For example, the challenge is to locate affordable housing in close proximity to existing social facilities and opportunities (close to the centre of towns) and not merely for the sake of infill and social engineering.

Functional integration relates to the way in which elements of the settlement system and natural environment interact at a municipal as well as local scale. The overarching objective of functional integration is functioning of the parts or elements in pursuit of the optimal functioning of the whole. That is, at the municipal wide scale, the efficient functioning of the settlement system should not undermine, or occur at the expense of the natural environment, and vice versa. Similarly, at the scale of towns, various elements of the urban system, such as the natural open space system; transport systems; economic systems and the system of utility services should each contribute towards the optimal functioning of the urban system. For example, transport and utility infrastructure should not compromise the role of the open space system. Rather, they should be planned and designed in such a manner that efficiently uses natural resources and compliments an integrated network of open spaces as opposed to being over-consumptive of non-renewable resources, and acting as barriers to continuity of the open space system.

Social integration is both of great importance and particularly difficult to achieve in the context of contemporary South Africa, as a result of forced social separation under the Apartheid regime. The difficulty in achieving true social integration over the last number of decades is indicative of the level of commitment that should support such efforts. The aim should be, through spatial organization as a starting point, to move towards greater inclusively in settlements rather than reinforcing exclusivity.

3. Sustainability
Underpinning the notion of sustainability as a spatial principle is a balanced and reciprocating positive relationship between the environment, society and the economy. The need for such a relationship stems from the fact that society and the economy are dependant upon the environmental resources for prosperity. Three goals from the Phase 1 SDF that relate to this principle are:

- Goal 1: “to reduce the negative impact of human activity on the natural environment in the Knysna municipal area, owing to its locality in the heart of the garden route and its reputation as a place where people can live close to nature”;
- Goal 4, “to preserve the biodiversity, the functional systems and the aesthetic quality of the natural environment”; and
- Goal 5: “to conserve the cultural heritage of the people of the area”.

Because human life is dependant on environmental resources, it is important that natural resource carrying capacities are not exceeded.
This implies more efficient use of limited resources. However, the economy should, without exploiting the natural environment, capitalize on those specific potentials imbedded in the natural resource base for sustainable growth and development.
ANNEXURE 4:

SCENARIO 2: “SMART GROWTH”
Annexure 4: Scenario 2: “Smart Growth”

Spatial Outcomes
A number of localised spatial outcomes will result from this approach. They include:

1. A range of uses and activities being attracted to vibrant CBD's;
2. A mix of activities clustering at sub centres;
3. Publicly assisted housing being better located;
4. Development of appropriate facilities in areas of need and renewed use of existing facilities; and
5. Firm protection of the environmental, heritage and amenity value of the municipality.

1. A range of uses and activities are attracted to a vibrant CBD
Following a slow incremental process of interventions involving partnership between the public and private sectors, confidence in the CBD grows. In particular, efforts on the side of the municipality including the identification and promotion of opportunities for redevelopment in the CBD have positive spin offs. Investment and redevelopment initiatives contribute to the area becoming a more vibrant hub of activity. Results of the range of initiatives include:

- The mix of uses in major towns grows with more residents choosing to live in the area;
- Evening activities in the CBD are supported by more residents living in the CBD and the development of attractive safe environments;
- The increase in the attractiveness of the CBD for tourists increases drawing more people and more spending;
- The clustering of activities and destinations in the CBD supports the efficiency of public transport;
- Confidence in the town results in major new development initiatives, having a positive impact on surrounding attractions.

2. A mix activities clusters at sub centres.
Pressure for development of large-scale suburban retail centres and decentralisation of offices to peripheral locations is limited. Higher order functions logically agglomerate in the CBD. Complimentary smaller sub-centres do, however, develop. In less advantaged areas, through active intervention on the part of the public sector, a number of accessible nodes develop. Results of these interventions include:

- Development of a few activity nodes in less well off areas promoted economic activity in these areas as well as access to services;
- Development in these accessible nodes ensures that public transport becomes more efficient.

3. Publicly assisted housing is better located.
The municipality makes a concerted effort to avoid large-scale monofunctional living environments and provides housing opportunities in better-located areas along with a range of other uses. This results in easier access for marginalized residents to public transport and economic and social opportunities.

4. Development of facilities and services in areas of need, as well as consolidation and renewed use of existing facilities
Although capital budgets are spent in a targeted manner on new facilities, an emphasis is placed on renewal of existing facilities and ensuring that new facilities function to accommodate a variety of
uses. This reduces the increase in operational costs to the municipality and ensures better use of capital budgets.

5. Firm protection of the environmental, heritage and amenity value of the Municipality occurs

As part of the smart growth scenario, the municipality decides to focus on protecting Knysna’s key environmental assets including the heritage and amenity value. This includes the protection and development of conservation worthy areas and buildings and the celebration and development of quality public environments. Results of this approach include:

- The strategic development of the public environment adds to the attraction for tourists and as a place to invest;
- It also improves the quality of residents’ lives, including access to recreational opportunities and economic opportunities.

Conclusions

What the prevalent spatial patterns that exist today highlight, is the immense power of infrastructure investment. The results of apartheid spatial planning and infrastructure investment are clear. The fact that we live in such a context where infrastructure is as skewed as they are deepens the need for an alternative approach to infrastructure investment patterns.

While it will take a long time to change existing patterns, commitment to the ‘Smart Growth’ approach and actions to begin such change is required immediately. Gradual yet consistent steps towards a long-term vision should, if the vision and goals of this approach are to be achieved, follow these immediate actions.
ANNEXURE 5:

A CONCEPTUAL FRAMEWORK OF THE KNYSNA MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK

The conceptual framework represents the ‘idea’ that should drive development in Knysna Municipality. The argument is built at a conceptual level and is applied to the specific context of the Knysna Municipal area. The ‘concept’ or idea is essentially derived from a number of imperatives.

Firstly, the key informants discussed above form the contextual basis for the idea. Secondly, along with context, a normative position regarding the nature of settlement making and settlement organization within a context of particular natural systems underpins the concept. Thus, it represents an idea about the spatial organization of settlements and their relationship with the natural systems that characterise the Garden Route.

The conceptual framework is defined here at two scales, firstly at the level of the municipal area as a whole, and secondly, at the level of the towns of Knysna and Sedgefield. Different kinds of natural systems and settlement systems dynamics operate at these two scales, thus it is necessary to define a conceptual framework for each. Each has different components.

Development of these is unpacked in greater detail below, discussing the role and importance of each. It is these concepts that will be applied to the municipal area as well as the towns, by warping the concepts to fit the reality on the ground.

1. Municipal wide Conceptual Framework

The municipal scale framework consists of three different conceptual frameworks:

- an open space system concept;
- a settlement and services concept; as well as
- an economic development concept.

Within the municipal scale framework, there is a necessity for a more detailed scale of planning that seeks to resolve spatial planning issues applicable at the scale of towns. The town scale conceptual framework represents this more detailed level of planning.

Albeit that the conceptual framework is constructed at two different scales (municipal and town), there are a number of planning concepts and tools that are used and remain consistent throughout the framework. They include open space systems, nodes, corridors and edges. Each does not have exactly the same meaning or spatial manifestation at the different scales. Hence, their specific nature and roles at different scales are clearly distinguished between.

1.1. Municipal wide Open Space System (MOSS)

A Municipal Open Space System is proposed as a key component of the municipal spatial development framework. It will ensure sustainability of the municipality’s natural assets, offering ecological prosperity in perpetuity, as well as long-term economic and recreational benefits to residents and visitors.

The importance placed on the natural environment is not derived arbitrarily. Rather, it is grounded in ecological, economic, and social concerns. The significance of the natural environment and an open space system essentially has four dimensions.
1. **Ecological**
   This is underpinned by humankind’s inherent reliance on the natural environment for survival. For continued access to these life-giving resources, natural systems, and their ecological functions, need to remain in balance.

2. **Economic and Productive**
   This dimension is underpinned by the recognition that without the natural environment, critical productive and economic activities such as tourism and agriculture would not be possible.

3. **Creating a sense of place**
   Access to these spaces allows people the opportunity to break from the stresses of daily life to enjoy moments of peace and tranquility. Such opportunity must be afforded to people who reside in the area, visitors, and very importantly, the poor.

4. **Recreational potential imbedded in quality green spaces**
   Areas for active and passive recreation are a necessity.

   The concept of *Bioregional Planning* and the related organisation of open space categories is applied in the open space system, as it is widely accepted a means through which environmental integrity and sustainability can be ensured.

(a) **Role**

   Two broad imperatives should underpin the open space system. Firstly, in planning the open space system, **sustainability and biodiversity** must be strived towards. Secondly, **public access to key natural features and amenity** must be ensured.

   The core ideas driving the concept include:
   - Connecting the mountain with the ocean via river corridors;
   - Enhancing ecological functioning by creating interconnected ecological rooms of indigenous vegetation;
   - Ensuring that each element contributes to an interconnected and integrated network of green open space.

(b) **Components**

   There are five key components:
   - core conservation;
   - ecological corridors;
   - secondary conservation areas;
   - east-west corridors of continuity;
   - productive green areas

   Within each of these components, management guidelines for specific sub-components should be applied. These guidelines may vary in any given component. For example, coastal dunes and coastal cliffs are both part of the core conservation category, yet will have slightly different guidelines.

   (i) **Core Conservation Areas**

   These are the ecological rooms in which major ecological processes occur. They are areas where the conservation of biodiversity is of primary importance. They should be subject to controlled public access and their social and economic roles enhanced through eco-tourism and educational activities.

   The building blocks of this component include areas that are indigenously vegetated (fynbos and indigenous forest) and sensitive features of landscape (mountainous areas, sensitive coastline, coastal dunes & cliffs, etc.). Existing National Parks form the backbone of these areas, while areas of equal conservation status (public & private nature reserves, very sensitive unprotected areas) yet are currently not afforded this level of protection, should be included in this category as well.
(ii) Ecological Corridors
These are the major corridors of continuity of natural systems and ecological processes at the municipal scale. The natural element that forms the basis for this category is major rivers, as well as the land that abuts either side of them (all make up ‘river corridors’). River corridors are the source of all life and securing biodiversity and balanced ecological functioning along their entirety is critical to sustained life.

(iii) Secondary Conservation Areas / Conservation Buffers
These are areas that compliment the core conservation areas. Conservation and biodiversity remains important. However, low impact eco-tourism and education related uses might be considered, subject to further detailed investigation. These include all properties adjoining core conservation areas, as well as sensitive natural areas in private or other ownership, whether formally declared as private nature reserves or not.

(iv) East – West Corridors of Continuity
In the context of strong north-south linkages in the form of river corridors (linking mountain and ocean), there is an absence of protected areas that form east west linkages. These linkages are important if a truly integrated network of open space systems is to be achieved. They will enhance the potential for species diversity and ecological functioning.

The most logical source for such linkage along this part of the coastline is areas where large parcels of sensitive vegetation, which are centrally located between mountain and ocean, exist in fairly close proximity. The challenge is to link these areas using the limited resources in the most efficient and effective means possible.

They are areas where minimal resource allocation will accrue maximum ecological benefit. By investing in utilizing these areas as critical east-west linkages will prove to be cost efficient, while accruing significant ecological benefits.

(v) Productive Green Areas
These are areas in which agriculture, commercial forestry and limited human settlement occur. Their importance derives from their current contribution and potential future contribution to the economy, as well as their role as ‘green’ areas which contribute to ‘sense of place’ and amenity.

Much emphasis must be placed on economic diversity and hence sustainable production, an imperative of which is capitalizing on the natural resource base. While the greatest competitive advantage in Knysna is presently derived from tourism, the forestry and agriculture sectors have in the past been and should continue to be important sources of economic stability. Hence, they are important sectors in securing long-term economic sustainability.

The Rural Economic Study will make recommendations about the economic future of these sectors respectively. In addition, the SDF provides policy direction and guidelines for agriculture and forestry areas, which will be applied once these areas have been clearly identified.
1.2. Town Scale Open Space Systems

(a) Role
This manifestation of open space is somewhat different to the municipal scale concept. It is a more local scale, planned in greater detail, and while there are common functions across scales, somewhat different functions occur at this scale as well. The town open space system derives its importance from ecological functioning at a local level, the contribution of these local systems to broader systems, its role as a ‘sink’ (absorbing wastes - air pollution, stormwater, etc.), its proximity to the majority of the populace, and thus its importance as easily accessible areas of natural amenity.

At a conceptual level, the gradation from areas of higher conservation status to productive areas, and then to areas of lower conservation status remains. The principles of continuity, balance and public access also remain important. However, because these green areas are very close to or within the urban fabric, and hence have inherently different physical characteristics, different management guidelines will apply. The only exception is that of core conservation areas, for which the guidelines will remain the same at both the municipal and town scale.

(b) Components
The components of an open space system at the scale of the town include:
- Core conservation areas;
- Buffer areas (areas of conditional development);
- Productive areas (urban agriculture);
- Recreation areas (passive and active);
- Landscaped areas (created green precincts).

(i) Core conservation areas
These are the ecological areas or ‘rooms’ (at the town scale). They are areas where the conservation of biodiversity is of primary importance. They should be subject to controlled public access and their social economic role enhanced through eco-tourism and educational activities.

The building blocks of this component include areas at the scale of the town, covered by indigenous vegetation or are sensitive features of landscape (estuarine and river systems, coastal dunes & cliffs, etc.). Existing National Parks form the backbone, while areas of equal conservation status (public & private nature reserves, very sensitive unprotected areas) currently not afforded this level of protection should be included in this category as well.

(ii) Buffer areas (areas of conditional development)
These are areas that are inherently rural, yet may or may not be intensively used for agricultural activities. Their importance stems from their visual amenity and ‘sense of place’ value. They can also potentially form a very useful buffer to core conservation areas and secondary conservation areas (see Municipal Open Space System Concept).

Hence, they must be afforded a level of protection for them to effectively perform this function. They should be areas where the rural character and ‘sense of place’ characteristics are maintained. Development in these areas should be of rural character and controls on the form and physical design of buildings should be enforced in keeping with the rural character of the landscape.
(iii) Productive areas

- Commercial Forestry
  Commercial Forestry is and has been an important economic activity in the municipality as a whole for many decades. A number of the high yield plantations (often in close proximity to towns) must be retained as forestry areas as they make a valuable contribution to the economy of the municipality and the Garden Route as a whole.

- Urban Agriculture
  (a) Small Scale Agriculture
  While intensive agricultural activity has not enjoyed major success in and around the towns, potentials for agriculture to play an important role in sustaining the population (particularly the poor) have been identified. These do not include large-scale commercial agriculture, but would ideally be in the form of small-scale agriculture and community food gardens for a start. This in itself could play an important role. In addition, depending on the success of such activities, surpluses may be sold to supplement incomes. The possibility of introducing indigenous woodlots must be explored as a very viable option for small-scale agriculture, which could also play an important ecological role if appropriately located.

  (b) Grazing Areas
  In addition to small-scale agriculture, there is need for land for grazing. Such uses are important in specific areas, such as the Northern Areas of Knysna where a significant number of residents own livestock. The importance arises both from it’s value in sustaining the livestock (often the greatest assets) of the communities where it exists, as well as alleviating pressures on public safety that arise from uncoordinated ‘roaming’ of cattle in residential areas and public roads.

(iv) Recreational areas (passive and active)

- Passive recreation areas
  The highest order of recreational spaces should be passive recreational areas. They should include urban parks that are in close proximity to urban areas. They should be used for nature walks and cycle trails. These should be areas of high quality and amenity to be enjoyed by residents and visitors alike.

- Active Recreation Areas
  Active recreational areas include large sports fields, local sports fields, public gardens and local play areas. It is argued that these spaces must be reinforced as meeting places for all. Efforts must focus on enhancing the quality of existing recreational spaces and promoting an ethos that encourages sharing (between organizations and institutions) and public access to them.

  At a more local level (within suburbs), lower order local recreational spaces such as play parks should be equitably distributed, again focussing on improving their quality.

(v) Landscaped areas (created green precincts)

- Soft Edges
  These are defined edges and spaces that enforce an active urban green interface. Defined green edges are important to integrate natural elements with other elements of the urban system and urban living.

  Efforts must focus on enhancing existing green spaces that abut prominent landscape features. The aim is to create landscaped green meeting places for all, which allow public access to and enhance the experience of Knysna as a ‘place’.

  Creating these precincts and edges entails application of sound landscape architecture to the context of the places to be created.
• **Landscaped streets**
Landscaping of streets should occur along major urban spines and major streets leading to prominent natural landscape features. The very powerful role that these could and should play in the context of the towns is to create green links between urban areas and prominent landscape features (lagoons, rivers, etc.). This is a necessary public action in improving the public spatial environment.

Furthermore, active encouragement of personal investment in tree planting in residential areas should also occur. The high rainfall in the area supports this approach.

1.3. **Municipal Wide Settlement and Services Concept**

This framework is essentially one that guides the nature and location of settlements within the Municipality. It provides direction for the types and levels of investment that should go into specific areas to achieve a well functioning system of settlements.

(a) **Principles**
From a settlement planning perspective, there are a number of Principles that should drive the settlement and services concept if the settlement system is to perform optimally. These are:

- Hierarchy of Settlement;
- Strategic Investment;
- Incremental Development.

(i) **Hierarchy of Settlement**
It is critical that a logical, hierarchically organised settlement structure exists. This must relate to the intrinsic suitability of location and function. This means that specific types of settlements are best suited to certain functions and locations within the landscape. Investment must reinforce these functions and roles. In the Status Quo Document, in the context of Knysna Municipality the settlement types include urban settlements (of varying sizes and roles), agricultural settlements, resort settlements and forestry settlements.

The sub-regional movement system plays an important impact on this hierarchy. A hierarchy of movement routes, ranging between routes of regional significance to local main roads and even scenic routes, can be defined - each has a place in the hierarchy. They must be organised in such a way that compliments the hierarchy of settlements. The principle that underpins the movement system is maximizing access to opportunities.

The role (whether it is an urban hub or a forestry settlement) of the settlement in the hierarchy is critical. This is the single most important informant of the types and levels of infrastructure investment that should go into the settlement.

(ii) **Strategic Investment**
A very specific approach to investment is propagated here. It is one that is supported at a National and Provincial Level, and is in keeping with the ‘Smart Growth’ approach to investment. It is argued that investment in infrastructure must be strategic. That is, that investment should focus on primary development areas in a manner that ensures that maximum benefits are accrued over time.
(iii) Incremental Development
Furthermore, as part of this minimalist approach, Incremental Development and change must be embraced. This entails acknowledging that the settlement framework is something that needs continual reinforcing through investment. It is something that is slowly yet consciously built upon.

(b) Components
The three key components of the settlement and services framework include nodes, corridors and urban edges. Each has a specific role to play in achieving the ideals of the settlement and services concept.

(i) Nodes
At the scale of the Municipality, major settlements are referred to as nodes. Each node has a different, yet complimentary role in the hierarchy, hence will receive different levels and types of investment.

(c) Typology and Order of Settlements
The size and function of a settlement is directly related to its significance (hierarchy) and role within the settlement system. The settlements along the Garden Route can be broadly classified into four typologies. Within the four types of settlements there are variations.

- **Core Regional Node:**
  These are settlements that are the most accessible and most dominant on a regional (comparable to district) level. They have the highest concentration of population, major retail, office and industrial activities and are the sites of administrative functions. They contain the higher order services and facilities. Part of their significance is that these settlements offer the widest variety of goods, services and speciality products.

- **Primary Regional Node:**
  Primary regional nodes are settlements that play a key role in their more local region. Within these regions these settlements are the sites of economic opportunity; services and facilities; local administrative functions; industrial, office and residential concentrations; and specialised services (especially for agriculture).

- **Secondary Node:**
  Secondary Nodes are focused towards serving the daily needs of the local population. These towns are key agricultural and social support centres. They play a number of significant roles:
  - Service provision to the rural hinterlands;
  - Capture income that would otherwise be channelled out of the region;
  - Innovation diffusion – sites of social interaction and knowledge transfer;
  - Production related secondary activities such as industry, processing of local primary produce and support sites.
  In addition, they support the core and regional settlements through providing markets for larger towns within a cluster and through diverse functional inter-dependence that exists between large towns and their surrounding smaller towns and countryside

- **Hamlet**
  Hamlets are clusters of homesteads and settlement. They are essentially service points. Hamlets are of particular importance in areas of limited or less economic development as they are the only possibility for achieving viable markets and services.

Knysna Municipality Spatial Development Framework
November 2008
The order of the settlement is defined by its significance and future role in the hierarchy of settlements. The order and future role of settlements within the hierarchy should be the primary determinant of the levels and types of investment (kit of parts) that is appropriate for each.

(d) Clusters of facilities and Services
A conceptual cluster of facilities and services should exist in each settlement. Some areas should be foci of capital infrastructure investment, while others may require and are better suited to significant investment in ‘human’ or ‘social’ capital investment. The level and types of services and facilities that should be provided varies in terms of the order of settlement. Table 2 provides a useful conceptual guide in terms of the types of services and facilities that should make up the ‘cluster of facilities and services’ in relation to order of settlements.

An example is the primary or major urban node. It is this area where the majority of the population and activities are concentrated. These should be the focus of investment. Secondary nodes fulfil a similar role but on a smaller scale, hence receive investment accordingly. Within these nodes, detailed planning must take place. The product of which will include guidelines for urban edge management, urban infill and densification, intra urban structure & logic (open space systems, urban nodes, corridors, etc.).

(ii) Corridors
Corridors at the regional scale are inter-urban / town movement routes. Their primary function is one of mobility, as carriers of traffic between towns and providing easy and efficient access to other settlements and destinations. This applies both to private and public transport.

Typology of Corridors
The number of people that use the route and its potential to provide access to other settlements are the key informants of its typology and hence its place (order) in the hierarchy.

In the case of Knysna Municipality, the distinction can be made between:
- regional corridors;
- sub-regional corridors;
- major local roads;
- scenic routes.

The last is a special category, but the principle of access still applies. This time it is access to areas of natural beauty that is of importance. The tourism potential of such routes is important in the Knysna Municipality.
(iii) Urban Edges
The importance of including urban edges at this scale has to do with an approach towards urban settlements that is important at a regional scale. It has much to do with urban infill and densification, a corollary of acknowledging urban edges. The aim at a regional scale, specifically in the settlement framework is to promote contained and concentrated urban development focussed around existing settlements.

Contained and concentrated urban settlements are critical in the Municipality for two reasons. Firstly, concentrated urban settlements have been proven widely as being the more efficient than sprawling ones in terms of resource consumption (services and infrastructure, transport costs, travel times, access to facilities, etc.). While it inevitably requires continuous upgrade of existing utility infrastructure if this approach is adopted, the long-term benefits of concentration far outweigh the long-term investment costs of spread urban settlements. Secondly, it has been clearly established that the natural environment is the most important asset in the Municipality; hence, it should be protected from urban development. Contained urban settlements will ensure this. This is fundamental to pursue in context of increasingly limited resources.

### Municipal Corridors

<table>
<thead>
<tr>
<th>Types</th>
<th>Function</th>
<th>Management implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional</td>
<td>• Carries traffic between major towns at a regional / district scale; • Allows high speed and efficient long-distance travel.</td>
<td>Very good route quality a necessity Tarred, double lane along most of it’s course</td>
</tr>
<tr>
<td>Sub-regional</td>
<td>• Allows high speed and efficient travel between settlements at a sub-regional / municipal scale.</td>
<td>• Good route quality must be maintained; • Preferably tarred, very regular maintenance if gravel; • Municipal Public transport routes.</td>
</tr>
<tr>
<td>Major Local</td>
<td>• Provides easy and efficient access between hamlets and service centres.</td>
<td>• Reasonable route quality required; • Tarred or gravel.</td>
</tr>
<tr>
<td>Scenic routes</td>
<td>• Provides high amenity travel (scenery); • Carriers of traffic to or between key tourism destinations.</td>
<td>• Ensuring visual amenity not compromised; • Utilize to enhance tourism experience.</td>
</tr>
</tbody>
</table>

*Table 1: Conceptual Municipal Corridors*
<table>
<thead>
<tr>
<th>Facility</th>
<th>Core Regional Node</th>
<th>Primary Regional Node</th>
<th>Secondary Node</th>
<th>Hamlets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education Facilities</strong></td>
<td>Tertiary training facility, secondary school, and primary school</td>
<td>Secondary and Primary school</td>
<td>Secondary and Primary school</td>
<td>Primary school</td>
</tr>
<tr>
<td><strong>Health Facilities</strong></td>
<td>District Hospital</td>
<td>Community Hospital</td>
<td>Clinic &amp; Mobile clinic stop point</td>
<td>Mobile clinic stop point or part-time Clinic facility</td>
</tr>
<tr>
<td><strong>Social Facilities</strong></td>
<td>Multi-purpose Centre Library</td>
<td>Community Centre / Multi-purpose Centre Library</td>
<td>Community Centre</td>
<td>Mobile Library</td>
</tr>
<tr>
<td><strong>Public Service Facilities</strong></td>
<td>Information Centre Business Development Centre / Economic Support facility Police Station District Fire Station Agricultural Support Centre</td>
<td>Post Office Police Station Fire Station Information Centre Agricultural Support Centre</td>
<td>Post Office Mobile Police Station</td>
<td>Mobile Post Office Mobile Police Station</td>
</tr>
<tr>
<td><strong>Amenities</strong></td>
<td>Sports and Recreation: sports stadiums, clubs, facilities and training fields Public Squares and Open Spaces Other Facilities: convention centres, “designation” entertainment attractions, restaurants and hotels</td>
<td>Regional Sports field and facility Public Open Space / Market</td>
<td>Local Sports Facilities</td>
<td>Shaded meeting space Play lot / ground</td>
</tr>
<tr>
<td><strong>Collective Service Points</strong></td>
<td>Public Telephone Post Office Public transport facility / interchanges</td>
<td>Public Telephones Public transport</td>
<td>Public Water Point Public Telephones Post Collection Points Public Transport Stop</td>
<td>Public telephone / pay point Public transport point associated with safe schools point</td>
</tr>
<tr>
<td><strong>Administrative</strong></td>
<td>District administration</td>
<td>B-Municipal Administration Agricultural Support Centre</td>
<td>Public Transport Stop</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Conceptual Clusters of Services and Facilities for varying settlement types
Regional Settlement and Services Concept

Knysna Municipality

Small residential cluster

Outeniqua Mountains

Major local route

Hamlet

Secondary Node

Regional route

Indian Ocean

Core Regional Node

Primary Regional Node

Sub-Regional route

Small residential cluster

Knysna Municipality

Scenic route

November 2008
1.4. Urban Nodes
(a) Role
These can be defined as places within the settlement where a cluster of activities is located (or is planned). These clusters of urban activity develop due to the levels of accessibility that exists, places with higher accessibility and exposure attracts agglomerations of higher order activity. At a generic level these clusters may reflect a mix of public facilities, business activity, housing and amenities and should be supported by a public transport interchange. Their role is underpinned by ensuring that all residents have equitable access to a range of activities, services and facilities.

The notion of public space and the facilities and institutions that surround them being the key structuring element of urban space underpins this component of the town scale conceptual framework. Public spaces, as well as facilities clustered around them must form an integral part of restructuring the towns of Knysna and Sedgefield.

(b) Components
The notion of hierarchy of these nodes is very important. Levels of accessibility and hence the ability to attract varying levels of facilities and services dictate this hierarchy. Points of highest accessibility will attract higher order facilities, while those of lesser accessibility may attract facilities, services and activities of a more local nature.

The order (major, secondary, local) will dictate the nature of the components of these nodes, which in turn defines their position in the hierarchy. The Draft Provincial Spatial Development Framework, 2005 (PSDF) proposes such hierarchical organization of nodes or centres at points of high accessibility, and provides examples of the level of facilities and services that should be located at each nodes or centres.

(c) Typology of Nodes
Table 3 is a conceptual guideline to both the types of Urban Nodes, and the appropriate facilities and services (types & level) for each. As is evident from the illustrations in the table, the elements should be clustered. The facilities and services clusters must also be related to contextual specificities and inherent need. Hence, it may have a specific social, economic or even educational focus for example, while still having a range of facilities and services.

(i) Major Activity Node (CBD)
The CBD must remain the focus in terms of:
- Being a key tourist destination;
- Locating higher order facilities and services;
- Promoting and concentrating additional commercial and retail activity;
- Promoting a greater mix of land use;
- Further increasing its residential component;
- Locating the major transport interchange;
- Locating higher order quality public spaces.

(ii) Secondary Activity Node
These nodes must be the locations for:
- Retail and Service nodes catering for neighbouring suburbs;
- Higher density mixed use precincts (including residential components);
- Quality public space provision;
- Lower order public facilities provision;
- Public transport collection and drop-off points.
(iii) **Local Activity Node**

These nodes must be the locations for:
- Local facilities and services provision;
- Small-scale lower order / Informal retail;
- Lower order public spaces.

The process of development of nodes (Muni-SDF, 1999)
<table>
<thead>
<tr>
<th>Nodes</th>
<th>Existing / Proposed Function</th>
<th>Strategic Development Objectives</th>
</tr>
</thead>
</table>
| **Major Activity Node (CBD)** | The largest activity node is the CBD. This centre should remain the focus of higher order retail functions, services and public facilities, which generate a high number of trips.                                                                                       | • Retaining position as prime location for higher order office and retail development.  
• Encouraging the location of activities in the node that have high trip generation rates to support public transport (which is oriented around CBD).  
• Improving its attractiveness as a tourism hub. |
| **Secondary Activity Nodes** | These nodes have the potential to provide retail, servicing activities and public facilities to a wider local area including a number of suburbs; though for a number of reasons remain underdeveloped. They are well supported by public transport routes reflect high levels of accessibility. They also comprise significant areas of undeveloped or under-utilised land. | • Encouraging the development of a mix of uses in these nodes including the development of higher density, quality housing to increase local thresholds.  
• Promoting a range of public facilities that could serve a wider population that the immediate neighbourhood.  
• Reinforcing nodes by improved public transport services and transport infrastructure as well as higher order public spaces. |
| **Local Activity Nodes** | These nodes have the potential to provide a range of functions, serving primarily local areas. They are important in that they can provide a range of basic services within walking distance of significant numbers of people. These nodes are underdeveloped, despite their convenient location. | • Encouraging the development of local activity nodes focussing on the provision of a range of local services.  
• Reinforcing nodes by the provision and development of public transport services and infrastructure, higher density housing.  
• Promote the development of pedestrian friendly environments and local public spaces. |
1.5. Urban Corridors

(a) Role
As is the case with urban nodes, corridors should also be hierarchically organised. Underpinning action to transform the movement system is creating a hierarchical and integrated system of connection and access. This system of connection should integrate the urban system, making urban activities more equitably accessible.

Transportation systems can at best be described as systems of connection as they dictate levels of accessibility. The pattern of accessibility within and between settlements is defined by the movement system. The range of choices and opportunities offered to the inhabitants by the settlement is significantly affected by this pattern.

Urban corridors and streets can be defined as streets where there is a planned or existing positive (reinforcing) relationship between the movement route and activities that abut the route. Due to levels of access onto these routes and their continuous nature connecting significant origins and destinations, activities respond to levels of exposure offered and take up positions along these routes.

The nature of these routes may vary along their length (less intense development to more intense). Furthermore routes may vary from each other (e.g. some routes are of a higher order, more continuous, and carry line haul public transport, others are less continuous, more initiate and support local public transport services).

(b) Components
The order of streets in urban areas in the Municipality varies, and could include:
- Mobility Corridors;
- Activity Streets;
- Local Activity streets;
- Scenic Corridors;
- Pedestrian and cycle networks & linkages.

(i) Mobility Corridors
These are movement routes that facilitate free flowing movement of large volumes of traffic at high speed. Their role is to bridge space efficiently. They facilitate high-speed traffic between and past towns in the region. In some cases, the need arises for ‘bypasses’ to be constructed, when conflict occurs in terms of the mobility and integrating movement functions of routes.

Bypasses facilitate the ease of flow of traffic at particular points where this conflict formerly caused significant delays. Furthermore, such routes alleviate problems of traffic congestion and pedestrian vulnerability. They are only necessary when the movement and integrating functions of routes are in conflict, significantly compromising both functions and should not occur under circumstances where this is not the case due to the significant expense at which they are constructed.

(ii) Activity Streets
These are major integrators of urban space and activity. Their role is primarily that of integrating transport and land-use. Facilitating access to a range of urban uses and activities (economic and social) underpins their existence.
They compliment the proposed concept of intense urban land use at particular points (nodes) as a means to maximize access. They are the highest order integrating routes. Driven by concerns of access, they complete an integrated network of highly accessible places (major & secondary nodes) by linking these points of highest accessibility. They also accommodate a range of modes of movement (vehicle, bicycle, pedestrian) in an integrated manner, meaning that the functioning of each does not compromise the functioning of the others.

(iii) Local Activity streets
These have similar functions to those described for Activity Streets. However, their order differs. These are of a lower order. Hence, there primary importance is integration and linkage that facilities access to lower order (secondary and local) nodes.

In the context of the towns in question, these are routes that have the potential to perform an integrating role focused on providing access to nodal points. Hence, they are 'proposed' activity streets and require municipal actions to develop their desired functionality.

(iv) Scenic Corridors
As was the case in the Municipal conceptual framework where this idea was introduced, these routes should offer views and experience of the beauty of the natural landscape while being bridges transporting visitors and residents between tourist attractions. They obviously have a more local focus in the context of towns. For example, at the town scale they are the connectors of viewpoints proposed above Not compromising the visual amenity of these routes is of importance, as was the case for municipal scenic corridors.

(v) Pedestrian and cycle networks & linkages

Pedestrian and Cycle Networks
The framework proposes an integrated network of walk/cycle ways around towns, focussing on promoting access to dominant natural landscape features (key place-making elements). While plotting their course through and around the unique landscapes the town has to offer, they also connect public spaces and places. These networks are proposed as a means through which people will be able, while enjoying recreational activities (walks, cycling), to experience the beauty and uniqueness of the area that defines it as a ‘place’.

Pedestrian and Cycle Linkages
The underpinning objective of these is also public access and improving the quality of a widely utilized route. These may or may not be part of a wider network of routes. Most often, they are linkages of high spatial quality along their length, which connect two places of importance in the town. For example, they could be a link between a specific suburb(s) and a specific area (beach, lagoon, CBD, cliff top, etc.).

1.6. Urban Edges

(a) Role
The urban edge, as briefly discussed above, is an integral part of the SDF, due specifically to the fact that the natural environment is the most valuable asset in the area and services infrastructure and facilities must be more efficiently and equitably organised spatially.

There is great demand to develop land in the close vicinity of the urban areas such as Knysna and Sedgefield. National legislation (Development Facilitation Act, No. 67 of 1995) requires that compaction as opposed to urban sprawl is encouraged. The most
comprehensive means for achieving this is by demarcating an urban edge. This would include a demarcated line defining the outer limits of urban expansions, as well as management guidelines associated with management zones on either side of the edge. The boundary must be exactly defined, either along a cadastral boundary, topographical feature or services infrastructure.

The urban edge is by no means a mechanism to stop development completely, rather it must dictate which areas must be avoided by development, as well as allow for areas where growth is to occur in the future within the urban edge. In this way it becomes an enabling mechanism, uncovering potential opportunities for development.

(b) Components
Hence, in this context of sensitivity, accompanied by huge demand, it is proposed that at a conceptual level, the urban edge has two components.

- Demarcated Lines:
  - Fixed Edge;
  - Draft Edge;
- Land use Guidelines.

(i) Fixed Edge
This edge must be held at all cost, and represents the absolute limit for development.

(ii) Draft Edge
These are areas where development may not have negative impacts on the environment, and may have positive impacts for the town if developed (e.g. additional tax revenue), yet this is not yet a certainty.

In this case, further studies would have to be done to identify whether or not this would be the case. Despite this allowance for flexibility in relation to the urban edge, it is proposed that densification and urban infill be strongly supported.

In the case of the Urban Edge for the town of Knysna, the full line indicates the urban edge proposed for the next 3 to 5 years, whilst the broken line indicates areas where future development may be considered after this period, based on the outcome of more detailed studies on infill and densification. The areas to the east of Dam-se-bos and Hornlee have been included, even though there is no current development in those areas for the following reasons:

- need for further industrial land;
- need to relocate the portion of the Uniondale Road (R339) which passes through Dam-se-bos;
- growth of low income housing area;
- need for land for a future cemetery site (an EIA has been undertaken for a site along the Noetzie Road).

The link between the Heads and the access road to Sparrebosch estate indicates the requirement for any future development on that property (also subject to the findings of the infill and densification studies) to include a link road to alleviate traffic congestion in the Heads township, whilst avoiding further skyline intrusion which has occurred at Sparrebosch.

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25 Provincial Urban Edge Guidelines, 2005
1.7 Municipal Economic Development

The first step towards economic development in the municipality is establishing principles and conceptual underpinnings that such a framework should encompass.

**Strategies**

- Exploiting comparative advantages provided by the natural resource base;
- Creating a diverse and inclusive rather than exclusive economy in terms of participation of the local population;
- Ensuring equitable economic relationships between various income groups within the population;
- Emphasizing increased participation in the local economy by poorest of the poor;
- Focusing on developing the local economy by encouraging partnerships and other arrangements between the public sector, communities and the private sector in order to create new employment opportunities and wealth creation in particular for those marginalized from mainstream economic activity.

Economic Development in the area requires an approach that views increasing employment opportunities as being just as important as economic growth (GRP). While it is desirable to capitalize on presently available opportunities such as construction, it is also necessary to think realistically about the long-term opportunities that are available. This means that the limitations for economic development that exist as a result of contextual conditions must be acknowledged. For the most part, sustainable economic development is limited to activities related to the resource base. This implies capitalising on the competitive advantage of the area.

Furthermore, the type of economic activity that is likely to benefit a limited number of individuals should not be promoted as actively as that which is likely to spread wealth. The property and retail industries are both good examples of economic activities which may be experiencing somewhat of a boom yet are unlikely to be sustained for long periods and will more than likely only benefit a select few who have the resources (capital, education, networks) to make such activities profitable.

Economic development in the area is also highly dependant on the sustained actions of many in steering their economic futures in the right direction. Mega-projects are not the answer to economic development in the region, instead many small projects over an extended period of time are required to build the economy slowly but surely.
ANNEXURE 6:

SUMMARY OF THE DRAFT WELBEDACHT / EASTFORD LOCAL STRUCTURE PLAN, 1998

A draft Structure Plan for this area was compiled in 1998, but, for mainly administrative reasons, was not adopted at the time. A number of the proposals in this document are reproduced for review and adoption in terms of the SDF.

- Of approximately 1757 hectares in the study area, less than 500ha were identified as being suitable for development;
- In the western sector, the pattern of development has to a large extent already been determined and the infrastructure is partly in place. The character of the area is rural with scattered large houses and holiday resorts built to a luxurious standard;
- New development should be in keeping with a country atmosphere with no ‘incongruous uses’. Further development close to the estuary should not be permitted, in order to protect the natural character of the shoreline, its green verges and overhanging vegetation;
- Densities proposed closely relate to the planned densities of adjacent areas where planning permissions have been granted by the local authority. Although the Draft Welbedacht-Eastford Local Structure Plan refers to densities of 3 and 10 units per hectare in the western sector, this only refers to portions of developable land. The current densities in the area are 6 units per hectare for group housing developments in the Welbedacht area and 1 unit per hectare for residential estates in the Eastford area;
- It is proposed that a density factor of 3 units per developable hectare or 1 unit per gross hectare be applicable for residential estates on the plateau and of 10 units per developable hectare or 6 units per gross hectare for group housing or similar developments facing the future N2 route be applicable, whichever the lower. The minimum subdivision sizes for Single Residential erven along the edge of the Knysna estuary, and overlooking it, would still be applicable, i.e. 8 000m²;
- Suitable sites for housing should be identified and land steeper than 1:4 should not be developed. The large properties in the area should not be conventionally subdivided into townships but should rather be developed, after environmental planning assessments have been done, as cohesively planned units in accordance with an approved design manual by one developer. Whilst units may be individually alienated, the whole should be managed as common property by a properly constituted home owners' association;
- Future development should be sympathetic to traditional architectural styles and should add to the quality of the town. Architectural guidelines attached as Appendix 5 to the draft Local Structure Plan should be adopted with minor variations (e.g. Coverage factor indicated in diagrams is incorrect, height parameter on ridge lines needs to be amended);
- Some localities such as skylines are more vulnerable to adverse impact as a result of developments of an inappropriate scale. The general 8m height limit would not be appropriate in these areas and construction should be subject to more positive guidelines;
- As a general approach, smaller country lodge style of development is preferred to a large hotel. The emphasis
should be on providing facilities for ecotourism and not mass tourism;

- The sector east of Blaricum Heights is virtually undeveloped. There is potential for a range of housing options from low cost high density to upmarket low density development. There is also potential for industry and training;
- Areas within Council's reticulation area must connect to the Council's system regardless of proposed density of development;
- As the planning area is separated from existing educational facilities within a 5km radius, being separated by the steep sided Salt River valley and the proposed N2 Bypass, it is not considered appropriate to take these existing facilities into account. They are in any case at full capacity. There are no vacant education sites within a 5km radius of the planning area;
- The standard for provision of primary school sites is one site per 1 000 households, at a minimum size of 1.4ha. The standard for secondary school sites is one per 2 000 households and the minimum site size is 2ha. (The Education Dept must be contacted to confirm whether the standards have changed);
- An area of 20ha has been identified for light industrial use at Windheuwel;
- Road linkages and upgrading need to be assured during development approval. A 20m road reserve for the Old Cape / Gouna / Concordia road needs to be secured;
- There will be a need for reasonably level ground for active recreation areas, particularly sports grounds. There are only two areas of reasonably level ground available in the planning area, fortunately one in each sector. It is therefore important to reserve this land in the long term for active public open space;
- No road shall exceed a longitudinal gradient of 1:6 (16%) and any proposed road with a gradient in excess of 1:8 (12.5%) shall be designed by a professional engineer whose detailed plans shall be submitted to the Council for approval prior to commencement of development. Access roads, earthworks and embankments shall be carefully designed to avoid visual impact and should include provision for screen planting;
- Much of the planning area has been identified as sensitive to development impact. Environmental planning should be undertaken before development;
- Sedimentation is a threat to the survival and diversity of the estuary. If sedimentation is to be successfully countered, sediment must be captured above high tide level, before reaching the estuary, and all development proposals for the plan area must be examined bearing this in mind;
- The marginal inter-tidal areas are particularly important for the ecology of the lagoon system and support some of the highest densities of life. Two significant areas of salt marsh occur, at the Point and above the N2 bridge over the Knysna River. Due to the proximity of roads, these are highly visible and accessible. This easy access makes the salt marsh vulnerable to disturbance and trampling at low tide;
- Owners of land on which indigenous forest occurs may be required to submit a forest / landscape management plan, together with any application for development;
- Any application for a camping site or caravan park should be the subject of a full IEM programme and such application will only be considered if the resulting
recommendations clearly show general support by all I&AP's;
• Car parking areas and access roads must be carefully designed and screened by planting with locally indigenous tree and shrub species;
• Building materials and colours must be appropriate to the rural setting with low Light Reflective Value to reduce visual impact;
• Two small local business sites for convenience shopping will be required in the planning area. The retail sale of convenience goods and food items only should be permitted, with a gross floor area of 150m² to 200m² maximum;
• Due to the known instability of some of the soils in the planning area a detailed geotechnical report will normally be required to be prepared by a geologist or other suitably qualified professional and submitted to Council prior to approval of development or building plans to ensure that ground conditions are suitable for the development envisaged;
• Electrical and telecommunications cabling should be placed underground to reduce unsightly poles and wires;
• Pre-cast concrete panels, walls and fences will normally not be permitted on street frontages or on any visible boundary;
• Light pollution should be avoided by using shielding above the horizontal plane;
• Any development along the shoreline shall respect existing rights of public access. Additional points of public access may be required as conditions of development approval;
• Although there are few areas of pristine fynbos remaining, this vegetation type persists for many years under pine plantations. In addition, there are two endangered orchid species which may be found in the area, Satyrium Princeps and Satyrium muticum, and at least one species which is restricted to the immediate environs of Knysna, Muralia Knysnaensis (J. Vlok, 1997);
• The municipal forest in the upper Salt River valley is of the dry river valley forest type and forms part of the southern Cape forest complex. In a ranking, in declining order, of all forests of this type, the upper Salt River forest ranks 18th out of 277. It is important to conserve this forest and the declaration of this area as a nature reserve is recommended. The forest could then be managed as a conservation and tourist asset. (In this regard, it has been suggested that a portion of the forest be made available for traditional initiation rite purposes, which will lead to its protection as a resource by the local communities, rather than permitting continued unauthorised exploitation thereof - community participation meeting, Masifunde Library, March 2003).
ANNEXURE 7:

BASIC CRITERIA FOR SUSTAINABLE DEVELOPMENT AND SUSTAINABILITY TEST
Annexure 7: Basic Criteria for Sustainable Development and Sustainability Test

In order to evaluate the desirability and sustainability of development applications, it is proposed to apply a sustainable development test based on national policy directives found in the principles of the Western Cape Planning and Development Act, No. 7 of 1999.

| 1.3.1 Determine the infrastructural constraints to sustainable economic growth and pro-actively remove them. |
| 1.3.2 Ensure that development fosters the integration of activities, of classes and of races; that it makes efficient use of space and infrastructure and, to this end that higher densities are promoted and urban sprawl is contained. |
| 1.3.3 Prepare a strategy and spatial development plan to address the issue of economic development outside the urban centres. |
| 1.3.4 Plan development projects and support development proposals that hold verifiable potential to stimulate sustainable economic development, especially if these proposals have the potential to: |
  - Create significant numbers of employment opportunities;  
  - Broaden the economic base of the region;  
  - Even out the cyclical nature of the regional economy;  
  - Conserve or enhance the natural beauty of the region. |


SUSTAINABILITY TEST

Does the PROPOSAL promote an integrated, compact urban form of the town, or does it represent an isolated development?

Does the PROPOSAL contribute to a more efficient use of resources or does it extend service lines and generate additional maintenance requirements?

Does the PROPOSAL represent a necessary and/or logical extension to the urban form of the town?

Does the PROPOSAL contribute to social, economic and physical development of the town or will it produce additional holiday housing with cyclical occupation and idle infrastructure during much of the year, creating a burden on the town without contributing positively to its economic stability?

Does the PROPOSAL contribute to a more equitable town or does it increase disparities?

Does the PROPOSAL hold the potential to create long-term employment opportunities beyond those of the construction phase?

Does the PROPOSAL occur on land which has been well maintained or has the land been neglected to a point which reduces its conservation-worthiness (it must be noted that it is the owner’s responsibility to maintain the land, and neglect thereof cannot be considered motivation for development rights)?
In a rural context, does the PROPOSAL contribute meaningfully to employment in the vicinity, or will it involve importing of a large component of its work-force?

In a rural context, does the PROPOSAL represent genuine farm holiday or tourism opportunities, or is it simply disguised township development?

In a rural context, does the PROPOSAL represent a unique opportunity or is it likely to set a precedent which may lead to a proliferation of non-urban township development.